

**PS****THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY****ISSUE 632 JULY 2005**

TB 43-PS-632, 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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**PETER J. SCHOOMAKER**

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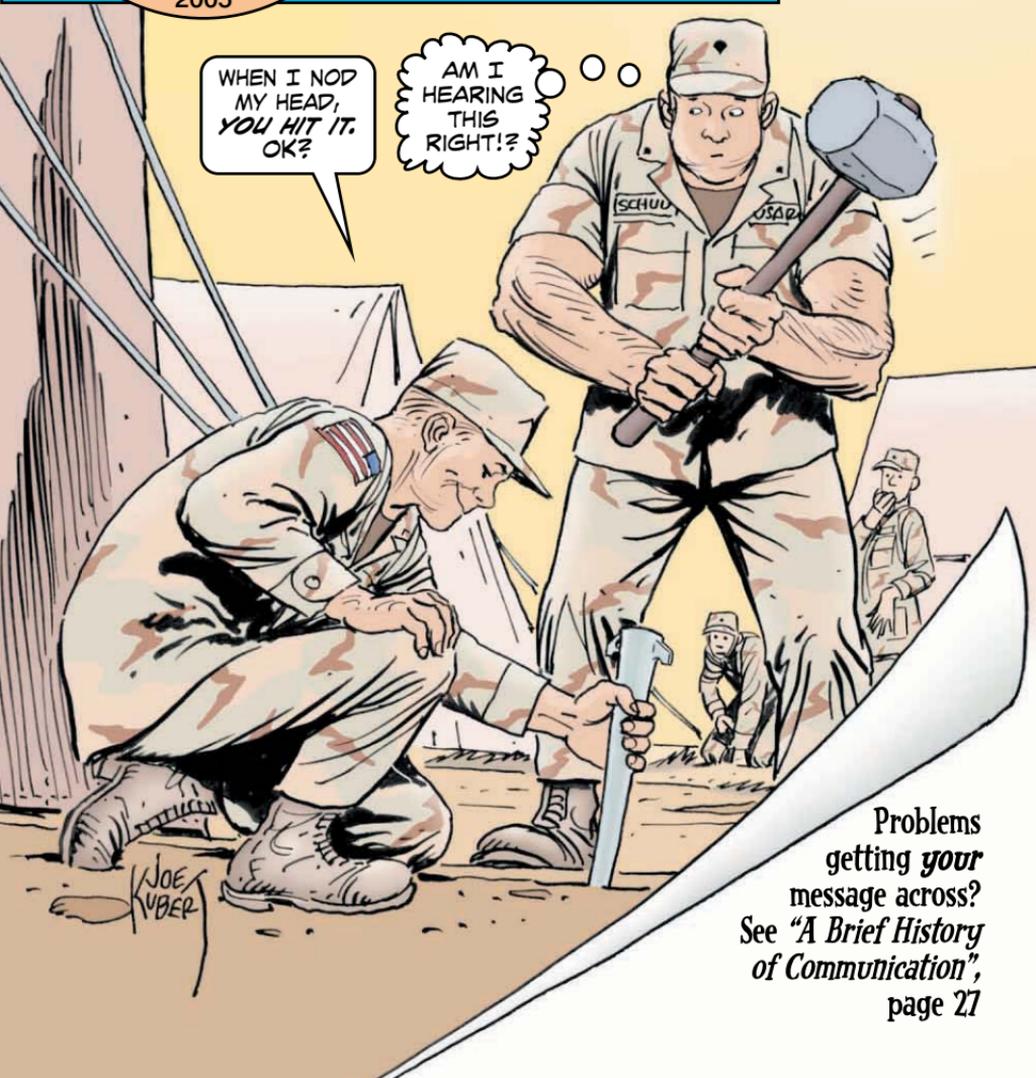
PS

July  
2005

# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-632

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WHEN I NOD  
MY HEAD,  
YOU HIT IT.  
OK?

AM I  
HEARING  
THIS  
RIGHT!?

Problems  
getting *your*  
message across?  
See "A Brief History  
of Communication",  
page 27

# THE OUNCE OR THE POUND?



There's a wise, old saying: An ounce of prevention is worth a pound of cure. In other words, by taking care of matters now—before they become problems—you avoid having to remedy major damage in the future. It's a common sense principle for daily living, whether it's locking your car doors, stretching before a jog or getting regular medical checkups.

The same principle lies at the heart of preventive maintenance. Taking small, necessary steps today to keep your gear in shape helps to avoid crippling failures tomorrow—not to mention the extra work needed to fix those failures. Today's simple PM actions add up, and the payoff comes down the road in equipment that works the way it should, when it should. It's like putting money in the bank for a rainy day.

An ounce of prevention is worth a pound of cure. Take that wise, old saying to heart. Practice it routinely. Replace a dirty air filter in your HMMWV. Test your commo batteries to make sure they have enough power. Lube the front and rear sights on your rifle. Inspect your body armor's ballistic panels for damage.

Perform an ounce of PM right now so you won't have to choke on a pound of cure later on.

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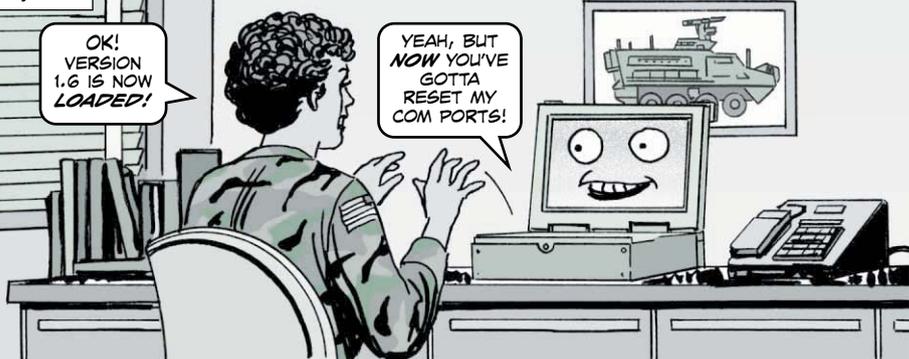
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Stryker...

OK!  
VERSION  
1.6 IS NOW  
LOADED!

YEAH, BUT  
NOW YOU'VE  
GOTTA  
RESET MY  
COM PORTS!



## CHANGE COM PORT SETTINGS MANUALLY

There's an important new maintenance procedure required for Stryker mechanics. When followed correctly, it allows you to use the RS485 PCMCIA card to conduct intrusive diagnostics of the chassis electronic systems through the maintenance support device (MSD).

National Instrument software version 1.5 for the RS485 PCMCIA card locks up the MSD. That was fixed with version 1.6. Unfortunately, loading version 1.6 changes the hardware configuration (com ports) on the MSD from the required 2-wire setting to 4-wire.

TO CHANGE  
THE MSD COM  
PORTS BACK TO  
THE CORRECT  
SETTINGS,  
FOLLOW THESE  
STEPS...

1. Right click on My Computer.
2. Select Manage.
3. Click on Device Manager.
4. Double-click Ports (Com & LPT).
5. Double-click NI PCMCIA-485 port 1 (com 5). Depending on the card it may have a -2 after the 485.
6. Click on the Port Settings tab at the top of the window.
7. Click on the Advanced button. The Transceiver Mode should be 2 Wire TxRdy Auto. If it's not, click on the drop down menu and change it.
8. Repeat steps 5-7 for NI PCMCIA-485 port 2 (com 6).

CHECK OUT TACOM  
MAINTENANCE  
ADVISORY MESSAGE  
05-013 FOR MORE  
DETAILS.



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JUL 05

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M1-Series Tanks...

MISHANDLING  
MY THERMAL  
RECEIVER UNIT  
IS DEFINITELY  
NOT COOL!



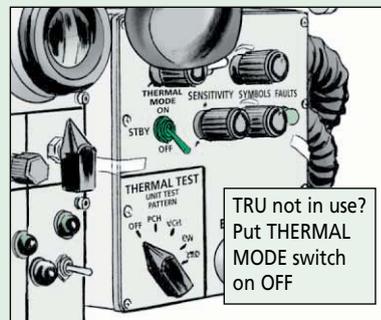
## COOL IT WITH PM

Staying cool is the key to preventing thermal receiving unit (TRU) failure on your M1-series tank. To do that, you have to make sure the dewar/cryogenic cooler assembly doesn't lose helium pressure.

Help your TRU keep its cool with these PM tips:

### Crewmen

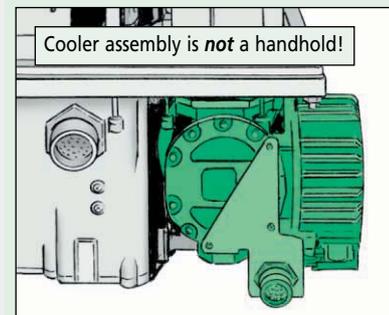
- Keep the TRU turned off during daylight hours and at night when it's not in use. Unnecessary use increases the chance of a failure.



- Pay attention to how long it takes the TRU to cool down. If it consistently takes longer than 15 minutes, the cooler assembly is probably low on helium. Report it.

### Mechanics

- Keep your hands off the cooler assembly when removing or installing the TRU. Use it as a handhold and the seals will pull loose. Then the entire assembly has to be replaced.



- Use the TRU's reusable container whenever storing or shipping the unit. That protects the cooler assembly from knocks and bangs that damage seals.

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# BACK TO BASICS



TAKING CARE OF YOUR COMBAT VEHICLE IN HOT, DUSTY OR SANDY CONDITIONS TAKES A LOT OF *EXTRA* EFFORT.

THAT MEANS GOING *BACK TO THE BASICS* OF PM.



## Clean Air

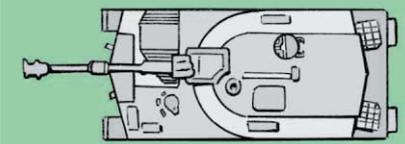
Make sure your air induction system is in good shape. That includes hoses, inlets, outlets, precleaners, and filter elements. Cracks, tears, holes and loose clamps let sand and dust get into engines.



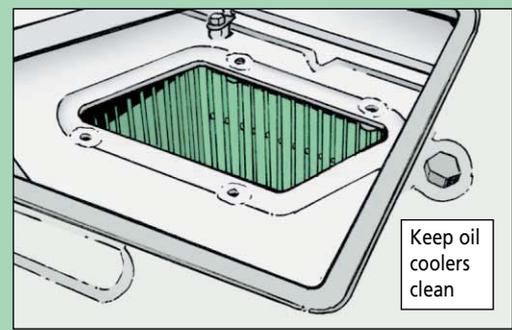
Pay attention to air restriction indicators. Clean air filter elements as often as necessary to keep engine performance high.

Park your vehicle with the engine compartment downwind. That allows the bulk of the vehicle to shield the engine from blowing sand or dust.

Keep engine compartment downwind



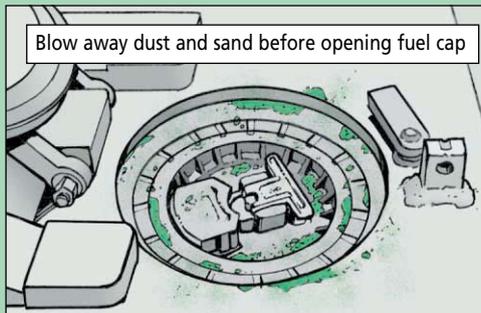
Keep all air-cooled surfaces—oil coolers and radiators—free of oil and grease. These surfaces transfer heat away from the oil and water inside as air flows past them. Oil and grease attract dust and sand like magnets. The heat can't escape, so engine and transmission damage are the result.



## Clean Fuel

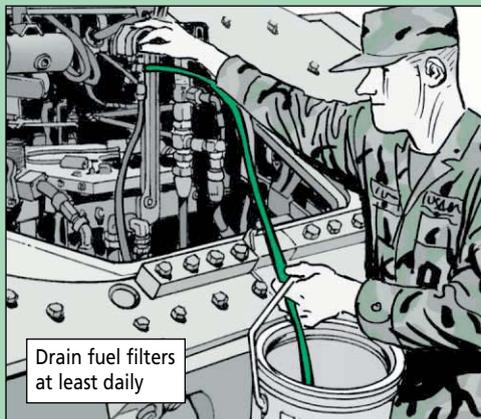
It's critical to keep fuel clean during refueling. Always wipe off the nozzle before refueling. If you suspect there's dirt inside the nozzle, flush it out or take the nozzle off and clean it. Keep the fuel nozzle capped when it's not in use.

Blow away loose dust and sand from the vehicle's fuel filler opening before removing the cap. When the fuel nozzle is in place, use a clean rag to close off any gaps between the nozzle and the fuel filler opening. That keeps blowing sand and dust from getting into the fuel tank. Close the fuel cap tight when you're finished.



No matter how careful you are, some dirt is going to get into the fuel system. That means draining the fuel filters to keep 'em from clogging.

Draining the fuel filters also gets rid of condensation that results from cool nights and hot days. You may need to drain fuel filters more than once a day to keep engine performance high, but they should always be drained at least once a day to keep water from diluting the fuel.



## Clean Water

Use only clean water from a reliable source for filling radiators. Local water supplies often contain mineral deposits that will eventually clog up radiator cores.

If local water must be used, filter it through a clean cloth before adding it to a radiator. Then, clean and purge the radiator at the next opportunity.



## Track Maintenance

Check the drive sprocket assembly, road-wheel mounting bolts, end connector bolts, track pin nuts, and centerguide bolts before, during and after operation. Sand, rocks and gravel tend to break or damage lube fittings and relief valves. Rough terrain causes hardware to work loose.



Never neutral steer in soft sand. That lets sand build up in the track assembly components and can result in a thrown track. Make fast turns wide. Keep short turns slow.

Pay attention to the tracks during at-halt inspections. Check track tension. Look for cracked end connectors and broken track pins.

Since you'll be lubing bearings much more often in sandy and dusty conditions, make sure you wipe away any excess lube when you're finished. Grease attracts sand, and the two combined can grind away metal.

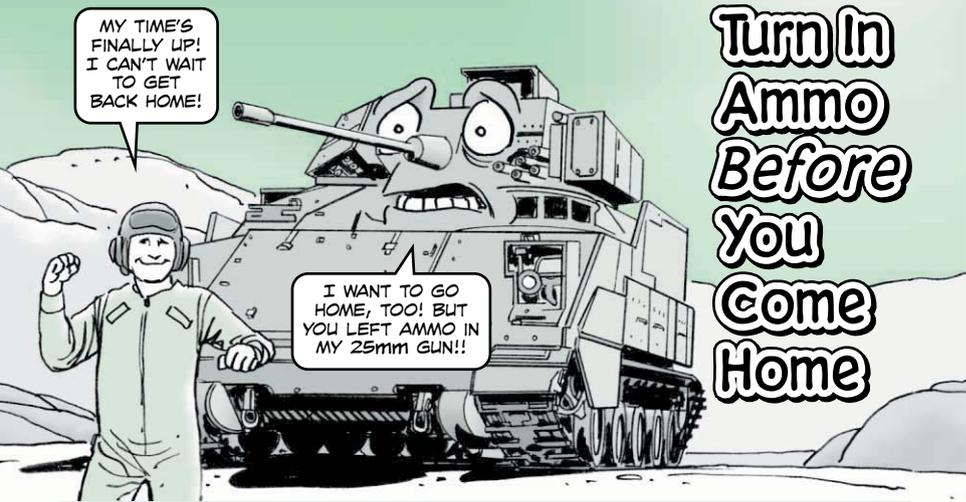
## Optics Care

Cover glass surfaces when they're not being used. Scouring and etching by sand and dust will ruin them. That's especially true for sighting and fire control equipment.

The buildup of dust on these surfaces can also degrade low-light vision. So keep surfaces as clean as possible using the specific cleaners called out in your TMs. Optical lens cleaning compound, NSN 6850-00-227-1887, can be used if your TM does not list one.

During dust or sandstorms, you might want to use self-clinging plastic film to cover optics between missions. NSN 8135-00-043-5331 gets a 100-ft roll of 11 1/2-in wide film.





So your tour in Iraq is finally up and you can hardly wait to get back for some of Mama's home cookin'.

Before you start drooling too much, you'd better make sure you removed and turned in all the ammo from your combat vehicle at one of the designated collection points.

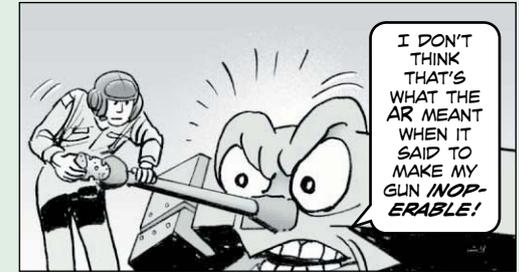
There have been several instances of live ammunition or explosives being found on vehicles after they returned home from Southwest Asia. In one case, a Bradley arrived with a live round still in the feeder of the fully operational 25mm chain gun!

Turning in all ammunition and explosives is only the first step. You also need to follow the requirements in AR 190-11, *Physical Security of Arms, Ammunition and Explosives*.

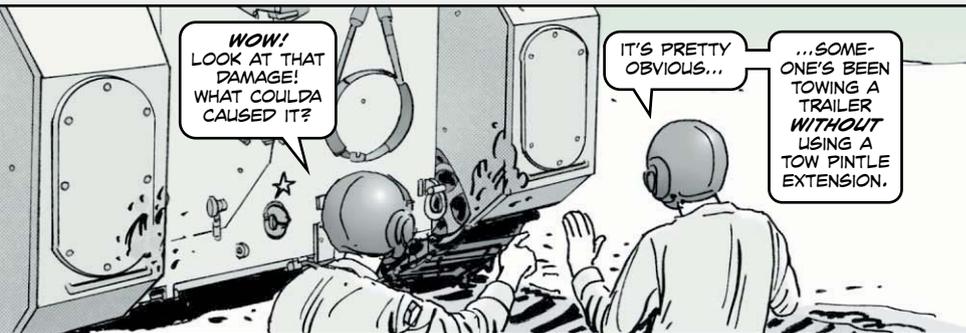
Chap 4 says all unmanned weapon systems installed in tanks, vehicles or aircraft are to be made inoperable by removing the barrel or other essential firing component. The components should then be locked inside a separate container within the vehicle.

For the Bradley, that means removing the bolt and track assemblies from the 25mm chain gun. Removing and securing the firing pin from the main gun is recommended for M1-series tanks.

It's each unit's responsibility to make sure all vehicles are clear of ammunition and all gun systems are disabled. So have your safety folks set up a plan to inspect and certify all vehicles as part of the redeployment process. See TACOM SOUM 05-002 for more information.



# S-T-R-E-T-C-H



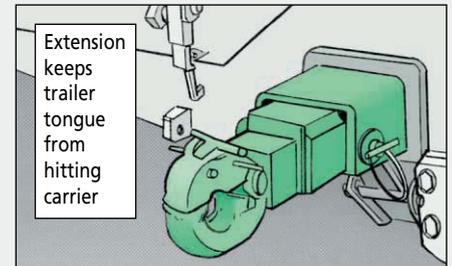
# YOUR REACH

**B**anged-up fuel pods on your M113A3 personnel carrier are a sure sign that you've been towing recently.

Whenever you make sharp turns, the trailer arm hits the back inside corners of the fuel pods.

A new tow pintle extension, NSN 2540-01-458-4846, is the solution. The extension increases the reach of the tow pintle and keeps the trailer tongue from hitting the fuel pods during sharp turns.

Repair parts for the tow pintle extension are listed in Fig 398 of TM 9-2350-277-24P (Oct 03).



Avenger  
Missile  
System...

IT'S COOLER  
OUTSIDE  
THAN INSIDE  
YOU! HOW CAN  
I OPERATE  
LIKE THAT?

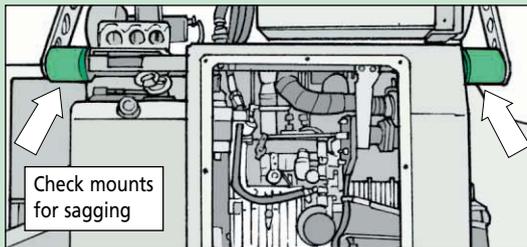
HOW DO  
YOU EXPECT  
ME TO  
OPERATE  
WHEN YOU  
IGNORE MY  
ECU/PPU!?

## WHAT YOU CAN DO FOR YOUR ECU/PPU

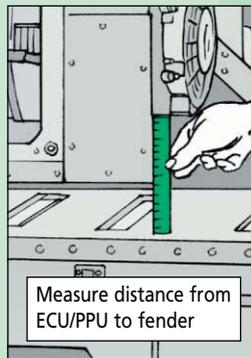
For sure you don't want the Avenger's ECU/PPU (environmental control unit/primary power unit) to fail, especially in the desert heat of Iraq. No ECU/PPU means no fresh, cool air for you in the turret and you quickly turn the color of a ripe tomato. Here's what you can do for your ECU/PPU:

### Measure ECU/PPU

The ECU/PPU rubber mounts wear out and let the unit sag. If it sags too much, the unit is hit and damaged by the fender when the Avenger rotates. Sagging also lets it bounce around and pull out its inserts.



Normally, you should measure the ECU/PPU for sagging every month. But soldiers operating in Iraq say the extreme heat there wears out the mounts faster so you may need to measure every other week. Check the distance from the bottom of the ECU/PPU to the fender on both sides. If the difference is more than an inch, report it. The mounts are sagging.

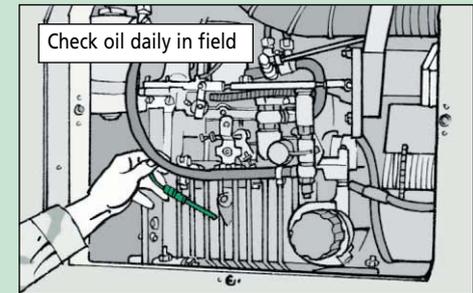


NEW MOUNTS  
COME WITH  
NSN 5342-01-  
140-4201.



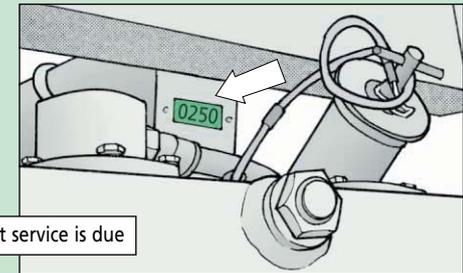
### Check the Oil

The ECU/PPU engine often doesn't have a heavy enough load. The result is wetstacking where oil is thrown into the exhaust system. That not only creates a mess, but it also means the oil level drops. If it drops too much, the engine is damaged. Check the oil daily in the field and add oil if necessary.



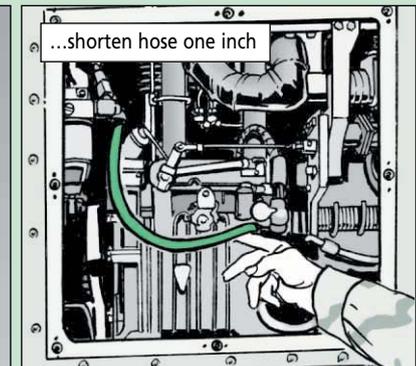
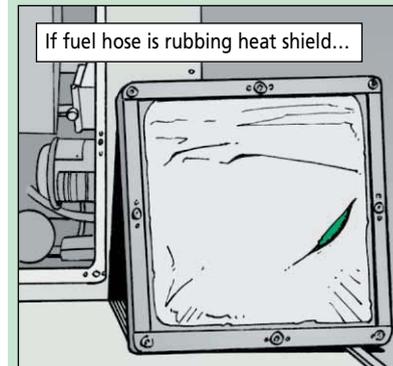
### Keep Track of the HOURS Meter

The ECU/PPU is supposed to be serviced by direct support every 250 hours of operation. If you forget, the life of the ECU/PPU will be greatly shortened. So when the HOURS meter says 250, schedule a visit for your Avenger to DS.



### Check the Hose

That's the hose running from the fuel pump to the fuel filter. Some units have had trouble with the hose rubbing on the heat shield and eventually developing a leak. If that's a problem, cut off one inch of the hose and reinstall it. That should keep the hose out of the way of the heat shield.



# MANY SMALL ARMS PARTS NO LONGER CONTROLLED INVENTORY



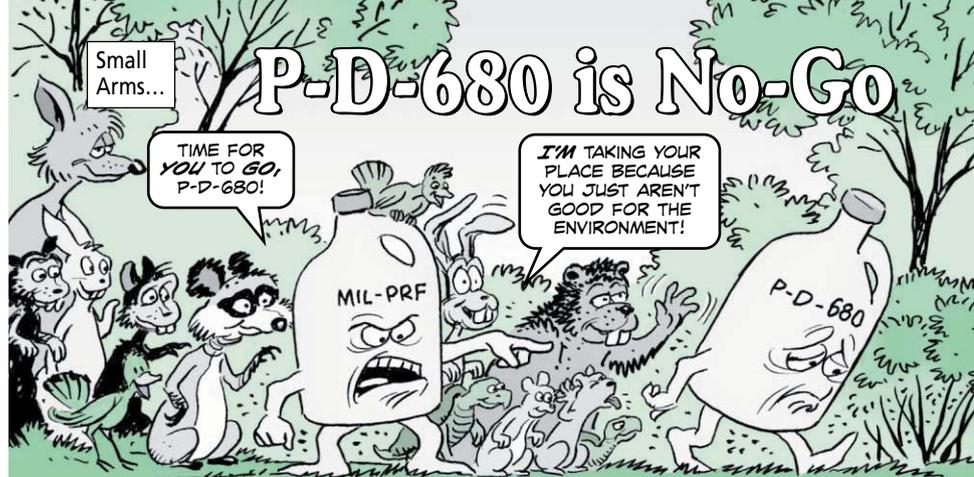
In the early 90s, the Army had trouble with small arms repair parts accountability. To fix that, the Army made repair parts controlled inventory, which meant the parts had to be kept in locked containers behind double barrier protection with controlled access.

That made it difficult for armorers to get the parts they needed to make repairs to their weapons. The Army recognized this and over the past few years has **reclassified** many small arms repair parts with a Controlled Inventory Item Code of U (unclassified), which means these parts can be stocked and stored without the accountability and storage restrictions.

The Army also said Para 2-24b of AR 710-2, which states "bench stocks are authorized for all maintenance activities," applies to **all organizational motor pools and arms rooms** as well as direct support shops. In other words, **armorers can stock any unclassified small arms repair parts that qualify as bench stock in the arms room.**

Armorers don't need to search for what repair parts can be ordered as bench stock for each weapon. CW2 Robert Philyaw of B Co, 2d FSB, 2ID in Iraq has compiled a list of repair parts armorers can order broken down by weapon. You can access the list at <https://www.us.army.mil/suite/doc/1513941>

All of these parts can be stocked on unit PLL.



# GET ON TRACK WITH RAIL ANSWERS



I DON'T KNOW ABOUT YOUR ADAPTER RAIL ASSEMBLY. LET'S SEE IF HALF-MAST HAS SOME ANSWERS.

OF COURSE HE DOES, SERGEANT B. HE'S HALF-MAST!



WHAT ARE YOU GONNA SAY?

FIRST, I'M GOING TO TELL HIM THAT WE'RE HAVING TROUBLE WITH THE M4 AND M5 ADAPTER RAIL SYSTEMS (ARS) CRACKING WHERE THEY FIT IN THE SLIP RING ON THE M4/M4A1 CARBINE AND M16A4 RIFLE.



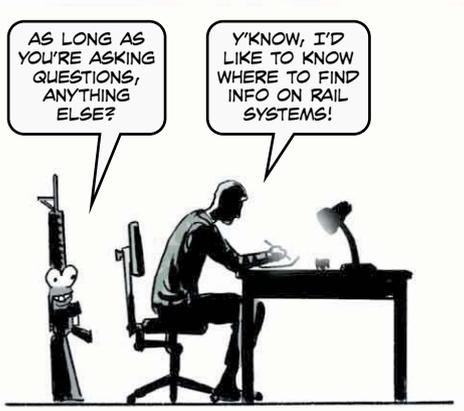
GOOD. NOW WHAT QUESTIONS DO YOU HAVE?

IS THERE ANYTHING WE CAN DO TO PREVENT THE CRACKING?



WHAT ABOUT ME MAYBE BEING NMC?

THAT'S MY NEXT QUESTION: DOES THE CRACKING MAKE THE WEAPONS NMC?

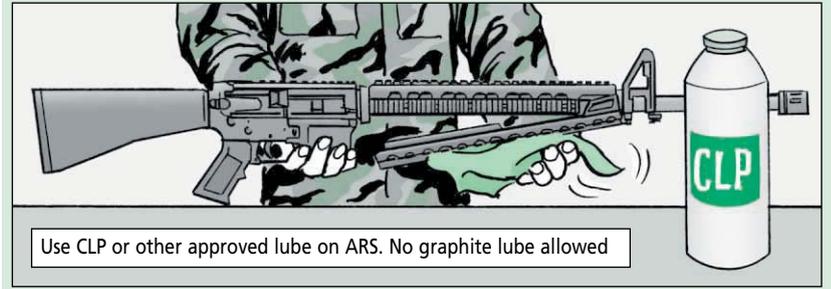


AS LONG AS YOU'RE ASKING QUESTIONS, ANYTHING ELSE?

Y'KNOW, I'D LIKE TO KNOW WHERE TO FIND INFO ON RAIL SYSTEMS!

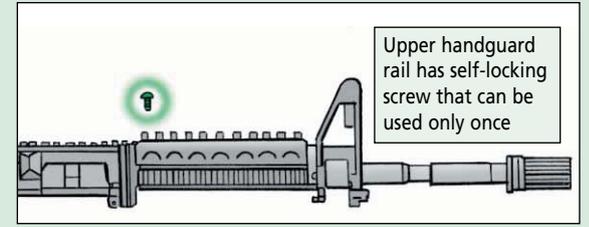
Dear Sergeant S.B.,

It's important to remember that the adapter rails are aluminum, just like the M4/M4A1 and M16 upper and lower receivers. So you definitely don't want to use any kind of graphite lubricant on the rails or the weapons. Graphite causes severe corrosion in aluminum. Use only CLP, LSA, or LAW for lubing the rails.



Use CLP or other approved lube on ARS. No graphite lube allowed

Make sure your unit knows not to remove the upper handguard rail when they clean their weapons. The upper handguard rail has a self-locking screw that must be replaced with a new screw when it's removed. If you use the same screw, it won't stay tight and any aiming or sighting devices you mount won't stay zeroed.



Upper handguard rail has self-locking screw that can be used only once

Like any part, the ARS won't last forever. If you've been using the rail system for three to four years, the cracks you're seeing may just be part of normal wear and tear. You can find M5 ARS repair parts in Fig C-17 in TM 9-1005-319-23&P and M4 ARS repair parts in Fig C-21. The ARS doesn't have a separate TM.

Because the ARS is part of the M16 and M4 additional authorized list (AAL) items, which means it's an accessory, a damaged rail system does not make the weapon NMC. Questions? Contact TACOM's Kevin Moore at DSN 793-2359/(309) 782-2359 or email [moorek@ria.army.mil](mailto:moorek@ria.army.mil)



MY ARS IS CRACKED! I GUESS THIS MEANS I'M NMC!

NO, YOU CAN STILL GO TO THE FIELD, BUT WE'LL ORDER A NEW ARS FOR YOU.

*Half-Mast*

# Be Clear on Correct Clearing

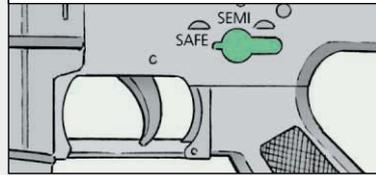


Some units think the best way to check on the range for an unfired round in their M16 rifles or M4/M4A1 carbines is to jam a cleaning rod all the way down the barrel.

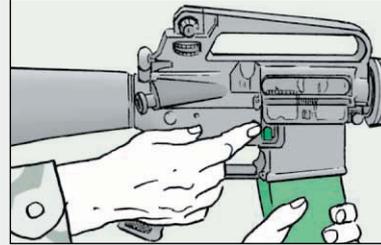
The problem with that method is that the rod can damage the bolt face. That leaves you with a weapon that may not fire and a ruined bolt.

"Rodding" a weapon is not necessary. It doesn't take that much longer to correctly clear your M16 or M4/M4A1 like this:

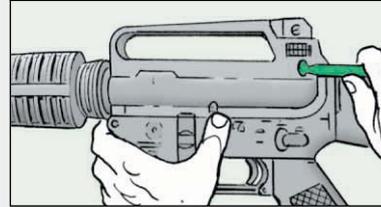
1. Point the weapon in a safe direction, cock it and put it on SAFE. Won't go on SAFE? Proceed with caution!



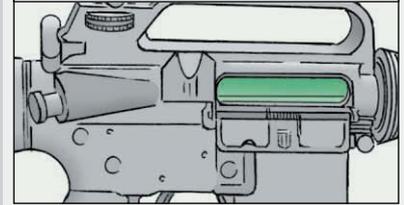
2. Remove the magazine.



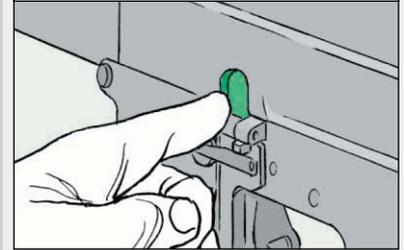
3. Pull the charging handle back. Press the bottom of the bolt catch and let the bolt move forward until the bolt catch engages it. Push the charging handle to its forward position.



4. Check the receiver and chamber for unfired rounds or brass.

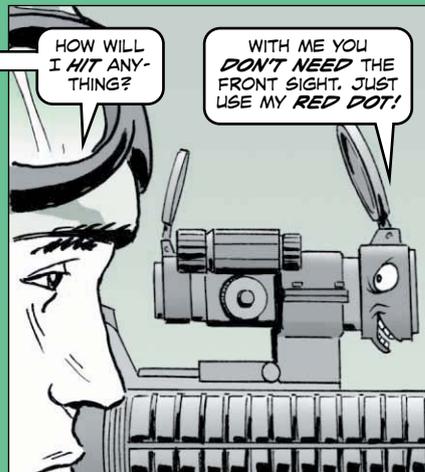


5. With the weapon still on SAFE, press the upper part of the bolt catch so that the bolt goes to the forward position. You're done.



## Should M68

## Block Sight Post?



Dear Half-Mast,  
We are installing M68 reflex sights on our M16 rifles and have a problem with the M68 blocking part of the front sight post. Is there a spacer or something similar we could install that would take care of this?  
CPT J.P.

Dear Captain J.P.,  
There is no fix for this problem because it isn't really a problem. If you're using the front sight post to align the M68, first zero the M16 or M4/M4A1 like it says in the M16's TM 9-1005-319-10. Then go to the alignment procedure that begins on WP 0005 00-10 in the M68's TM 9-1240-413-12&P. To align the M68 you need to see only the top of the front sight post, not the whole post.  
Once you've done the rough alignment using the front sight post, you will use the red dot for sighting, not the sight post.

*Half-Mast*

# TIRE PM = MONEY SAVER



Operators, the replacement cost of just one rubber tire on a construction or material-handling vehicle will make you think twice about your driving habits at the work site.

For example, swapping out one tire on the 621B scraper costs about 2 grand when you consider the price of the tire and its removal and installation. That's 8 grand just to replace the tires on one scraper!

### Check 'em Often

Eyeball your vehicle's tires often, especially in quarries, for signs of tire spin cuts. Check your tires when you stop for a break. Get rid of all embedded rocks. If you don't, every time the tire rotates, rocks are pushed deeper into the tread. Eventually, a rock passes through the tread and into the soft body rubber. Then it's just a matter of time before a blowout or puncture.

SO HERE ARE SOME COST-SAVING TIPS THAT WILL PUT LESS WEAR-AND-TEAR ON THESE TIRES.

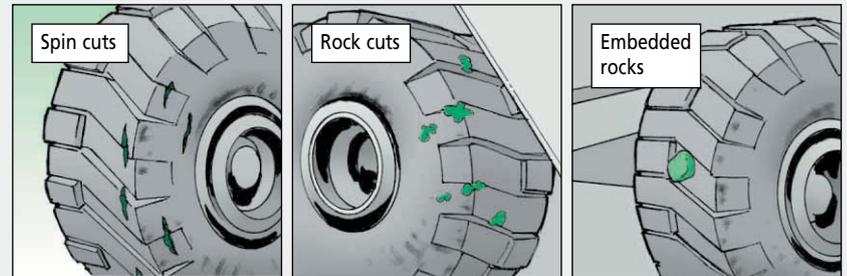
### Driving

Slow down when you leave or enter the load or dump area from the haul road. Slower speed reduces impact damage and tire cuts.

Never skid down steep slopes. Next to spinning the wheels, the quickest way to strip a tire is to lock the wheels of a fully loaded vehicle while going downhill.

Braking a fast-moving scraper or dump truck with a full load down a 20 percent grade burns off rubber like a hot rod taking off from a dead stop.

Also, remember to approach piles and banks straight on. Angling into the pile exposes tire sidewalls to a beating from fallen rocks.



### Watch Air Pressure

Keep the right amount of air in tires. Never over-inflate tires to make 'em match in size or circumference. Have your mechanic paint the recommended cold-inflation pressure on the wheel rim near the valve stem.

Never mix radial and bias-ply tires on the same vehicle. You can lose steering control, have poor handling, risk mechanical damage and uneven tire wear.

Always use the type of tire that's designed for the job you're doing. Use matched tread design tires on all drive wheels.

On earth-moving equipment, replace tires that have less than 13/32-in tread depth.



# CHECK THE BATTERIES

YOU JUST AREN'T ACCURATE ANYMORE...

...WHAT'S HAPPENED TO YOU?

I HAVEN'T HAD MY BATTERIES CHANGED IN FOUR YEARS!

MY MEMORY IS TOTALLY... UH... UHM... ~~SARGH!~~ I FORGOT WHAT I WAS SAYING!

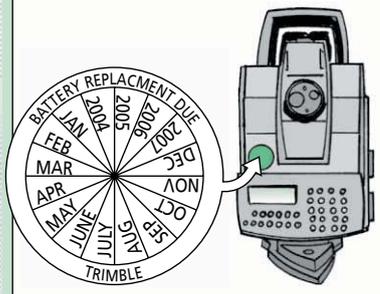
Some engineer units are finding after they deploy that their automated integrated surveying instruments (AISI) aren't working right because the internal batteries need to be replaced.

Don't let that happen to you! Survey the batteries on all your AISIs right now to see if their internal batteries have been replaced in the last three years. If they haven't been, the batteries need to be replaced.

There are two ways to check:

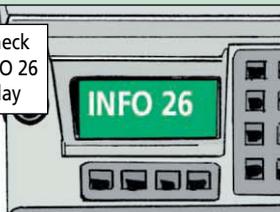
- Look at the Trimble Battery replacement due date sticker just below the distance meter head.

Look at replacement due date sticker...



- Turn the power on and look for INFO 26 in the display. That means the batteries need to be replaced as soon as possible. If you continue to operate the AISI in an INFO 26 condition or with expired batteries you risk total loss of the AISI's memory or AISI failure.

...or check for INFO 26 in display



You can't replace the batteries yourself. An authorized service center must do it.

To get instructions and approval for free AISI battery replacement, contact CECOM's Danny Carter at DSN 987-5472/(732) 427-5472 or email

**danny.carter@mail1.monmouth.army.mil**

or contact Hilda Thomas at DSN 992-9982/(732) 532-9982 or email

**hilda.thomas@mail1.monmouth.army.mil**

They will need the serial numbers of your AISIs.

MICLIC...

# Upgrading MICLICs

PLEASE, PLEASE, PLEASE HELP ME BECOME A MOD 3!

ALL THE OTHER MICLICs HERE ARE MOD 3s AND THEY'RE MAKING FUN OF ME!

LEMME GO GET TB 9-2330-323-30 AND WE'LL GET STARTED.



Dear Half-Mast,  
We have several trailer-mounted MICLICs that are MOD 1. How do we convert them to MOD 3?

CW2 R.W.

Dear Chief R.W.,

The M200A1 trailer must be upgraded by your direct support like it says in TB 9-2330-323-30 for the MICLIC to be MOD 3. If you need a copy of the TB, contact TACOM-Rock Island's Cameron Reed at DSN 793-1521/(309) 782-1521 or email:

**reedc@ria.army.mil**

*Half-Mast*

# LHS GREASE FITTINGS

HANG ON! I'VE GOTCHER GREASE RIGHT HERE!

**CRACK**  
**SQUEEK**

IT'S ABOUT TIME! MY CYLINDER ARMS CAN'T TAKE MUCH MORE!



# LACK OF LUBE = NMC

CREWMEN, A LACK OF LUBE WILL CAUSE REAL PROBLEMS FOR YOU...

...AND PUT YOUR LOAD HANDLING SYSTEM (LHS) DOWN FOR REPAIRS.

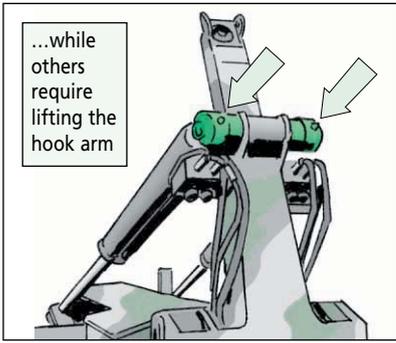
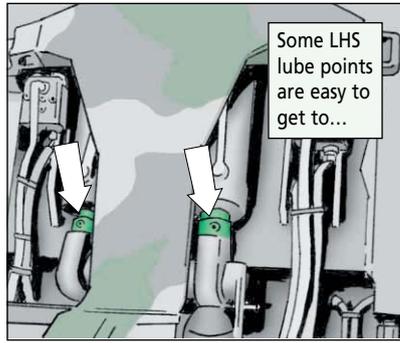
SO WHAT'S UP? READ ON...



Twelve grease fittings lube the load handling system (LHS) on the CBT, HEMTT M1120-series, and M1074/M1075 PLS trucks.

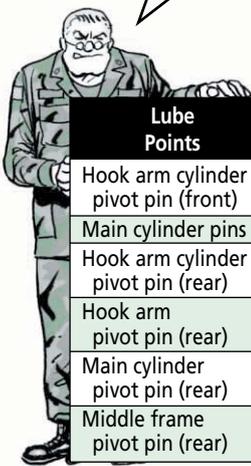
You'll find that info in your vehicle LO or -10 technical manual. Problem is, some of these fittings are getting no lube at all!

Sure, it's easy to lube the fittings in plain sight, but what about the ones you won't find until the hook arm is raised? They're a little harder to see and get at.



But, if you don't lube all of 'em, the LHS hook arm will start sticking. Eventually it won't do any lifting at all.

SO LUBE ALL THE TWELVE FITTINGS MONTHLY, OR EVERY 50 OPERATING HOURS OF THE LHS... WHICH-EVER COMES FIRST.



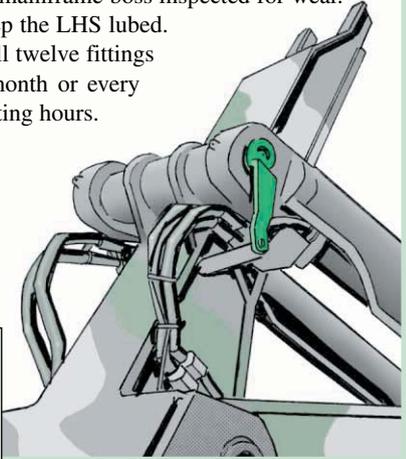
Lube Points	# of fittings
Hook arm cylinder pivot pin (front)	2
Main cylinder pins	2
Hook arm cylinder pivot pin (rear)	2
Hook arm pivot pin (rear)	2
Main cylinder pivot pin (rear)	2
Middle frame pivot pin (rear)	2

Middle frame shaft cylinder locking arms are breaking on the vehicle's load handling system (LHS). That's because a lack of lube on the cylinder bushings is causing them to seize. When they seize, the locking arms break as they try to turn with the movement of the LHS.

Broken locking arms deadline your truck. That means your truck has to go to DS for repair and to have the mainframe boss inspected for wear.

So keep the LHS lubed. Grease all twelve fittings once a month or every 50 operating hours.

Lube fittings to stop arm damage



Brakes...

KEEP THIS INFO ABOUT SILICONE BRAKE FLUID (BFS) IN MIND...

...ESPECIALLY WHEN THE TEMPERATURE HITS TRIPLE DIGITS.

# USE THE RIGHT BRAKE FLUID



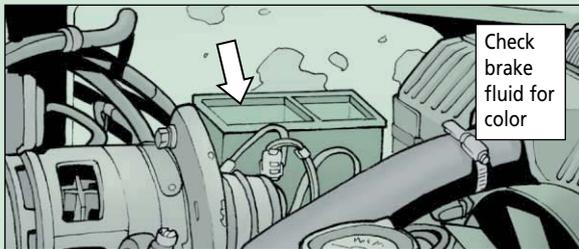
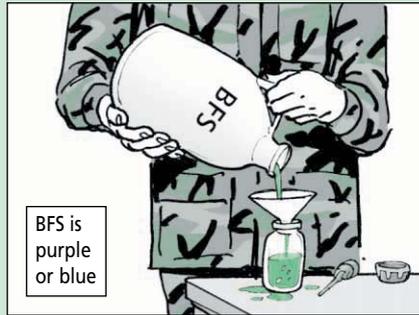
**BFS**, provided under MIL-PRF-46176B and also known as DOT 5 brake fluid, replaced the old brake fluid, V-V-680, also known as DOT 3 or DOT 4. BFS is more stable at high temperatures and won't absorb water.

So, when it's time to add brake fluid to a master cylinder containing BFS, make sure that what you add is also BFS. A combination of BFS with old fluids will still absorb water, creating corrosion and deposits that cause stopping problems.

Mixing old brake fluid with BFS can also lead to seal leakage, because the seal protective properties of BFS are diluted by the old stuff.

So how do you tell which fluid is which? Go by the color, if you can. BFS is purple or blue in color, though the dye that gives it the color can break down. Then the fluid in the master cylinder becomes brown or amber.

There's no cause for alarm if the color varies—the BFS is still good. But if the color is not purple or blue, you can't tell what kind of fluid is in your brake system.



HERE ARE TWO OTHER WAYS TO TELL WHAT KIND OF BRAKE FLUID YOU HAVE...



## BFS + Unknown Fluid

Try mixing a few tablespoons of the unknown fluid with a little BFS. If the two mix, the unknown fluid is BFS, too. But if the two fluids separate into layers, the unknown stuff is DOT 3 or 4. Your vehicle needs to have the brake fluid changed.

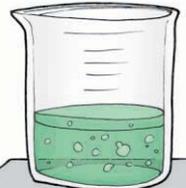
Mix?  
Both BFS  
No mix?  
DOT 3 or 4



## Unknown Fluid + Water

Put some of the unknown fluid in a jar with a little water and shake it. BFS does not mix with water, and you'll see distinct layers. DOT 3 and 4 fluids, on the other hand, do mix with water and remain mixed. You won't see separate layers.

Mix?  
DOT 3 or 4  
No mix?  
BFS



DOT 3 OR 4 FLUIDS SHOULD BE FLUSHED!



SEE YOUR TM FOR DETAILS.

# PURGING WITH PM

GETTING YOUR TANKER READY FOR SHIPMENT INVOLVES PURGING THE TANK, BUT DON'T STOP THERE!

Pumping fuel is an M978 tanker's business. Part of your business includes getting the tanker ready for deployment and shipment overseas.

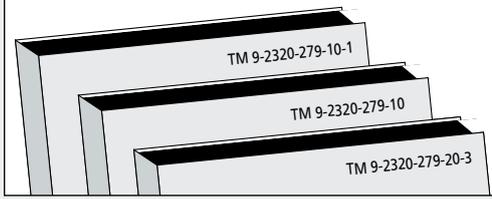
Here are some PM pointers to keep in mind.

Make sure all purging solution is out of the tanker before shipment. Solution left in the tanker gums up the tanker's plumbing, including the hoses, pipes, valves and filter separator. Eventually, the tanker will not pump fuel like it's supposed to when you need it.

So after purging, unload the solution by following the info in Para 2-15C in TM 9-2320-279-10-1.

YOU'LL ALSO NEED TO FOLLOW THE WORD IN PARA 2-26A OF TM 9-2320-279-10 AND PARA 25-3 OF TM 9-2320-279-20-3.

THOSE PARAGRAPHS HAVE THE **LOWDOWN** ON DRAINING SOLUTION FROM THE TANKER'S PLUMBING.



## A BRIEF HISTORY OF COMMUNICATION (AND THE IMPORTANT ROLE PM HAS PLAYED)

COMMUNICATIONS THROUGH THE AGES HAS BEEN A TWO-STEP PROCESS.

FIRST, GET THE ATTENTION OF THE PERSON YOU WISH TO COMMUNICATE WITH.



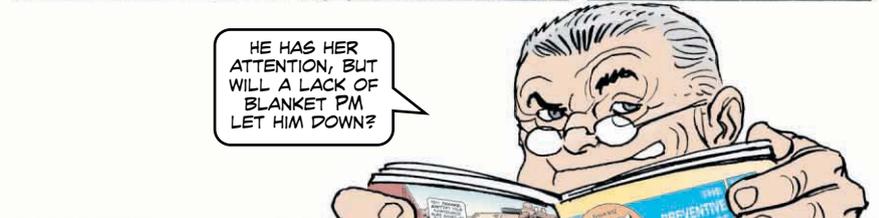
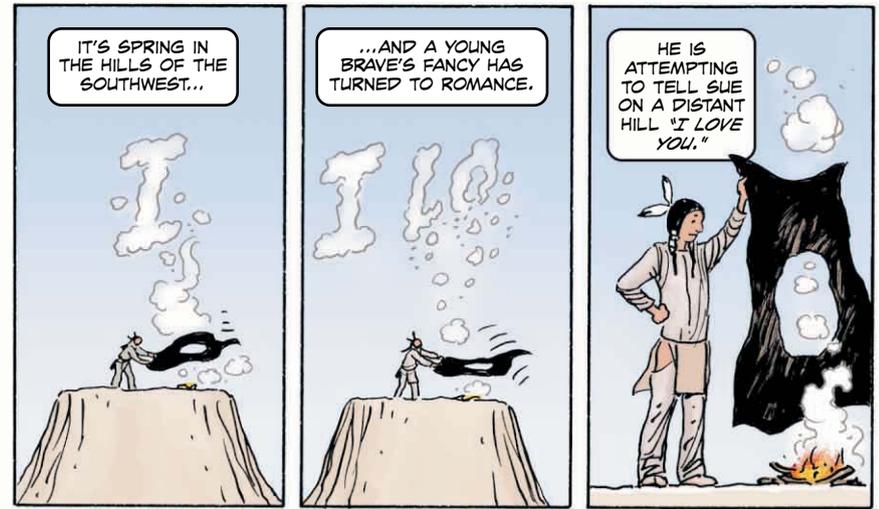
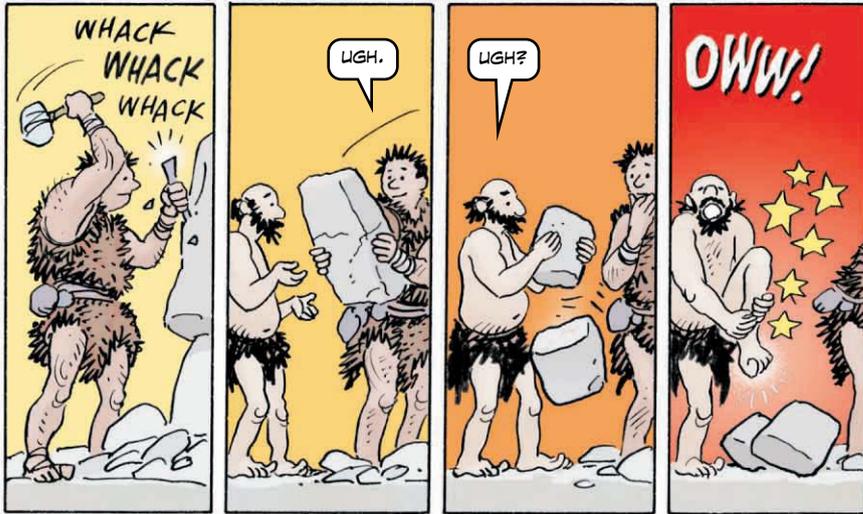
SECOND, DELIVER THE MESSAGE CLEARLY.



BOTH OF THESE STEPS REQUIRE PREVENTIVE MAINTENANCE TO ENSURE THEY ARE ACHIEVED.



TODAY, WE WILL EXAMINE THE HISTORY OF COMMUNICATIONS AND THE VITAL ROLE THAT PM PLAYED IN THE PROCESS.





RUN UP THE "WE ARE FRIENDS" SIGNAL FLAG, BOS'N...



...AND LET 'EM KNOW WE ARE NOT THE ENEMY!

AYE, SIR!



IT LOOKS LIKE A LACK OF FLAG PM MAY HAVE GARBLED THIS MESSAGE. LET'S SEE IF THAT'S THE CASE.



A LACK OF PM WILL LEAVE YOU UP TO YOUR NECK IN HOT (OR COLD) WATER!

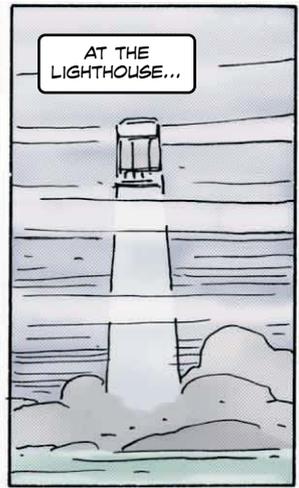


IN THE AGE OF IRON SHIPS, FOG IS THE MENACE.

THIS FOG IS THICKER THAN PEA SOUP.



WHERE IS THAT PURN LIGHTHOUSE LIGHT?



AT THE LIGHTHOUSE...



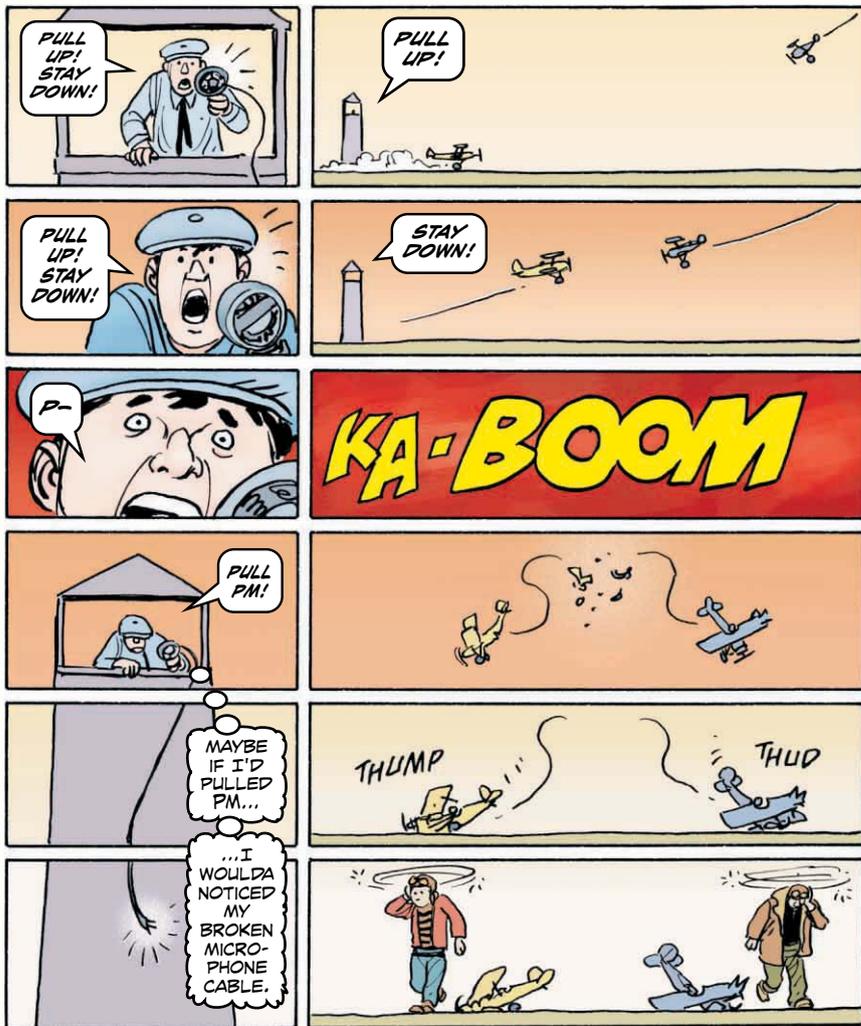
...THE KEEPER IS HAVING PROBLEMS.

I SHOULD'VE REPLACED THESE BURNED-OUT BULBS BEFORE-

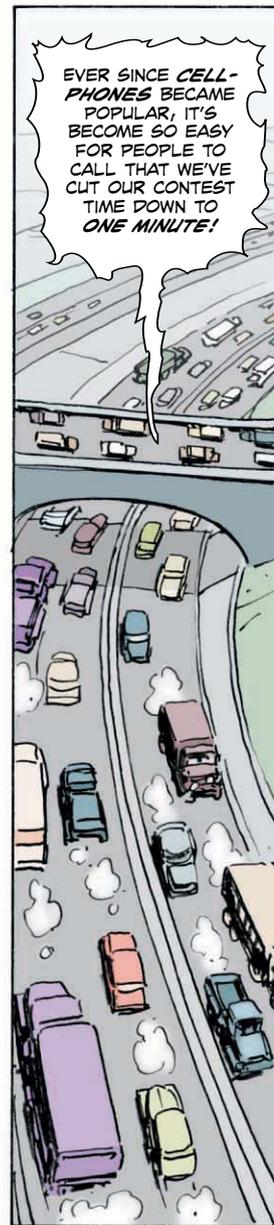


YOU'LL NEVER SEE THE LIGHT WITHOUT PM ON COMMUNICATIONS EQUIPMENT.

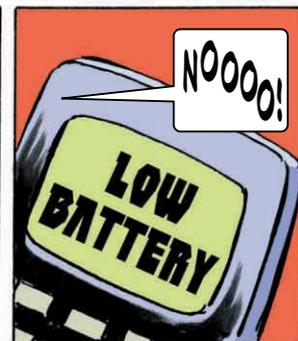


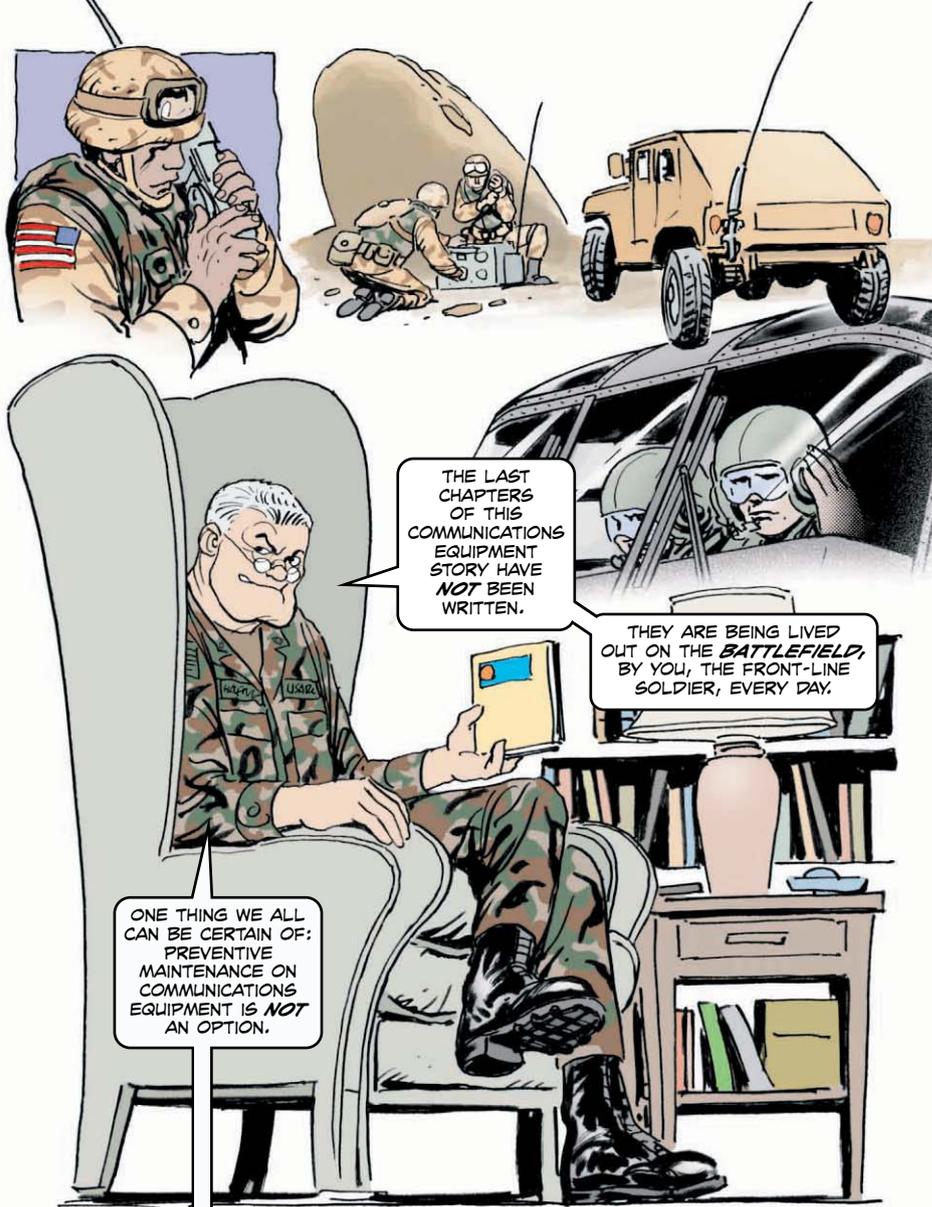


WHEN PM TAKES FLIGHT, YOU DON'T!



THE LEAST A LACK OF PM WILL COST IS MONEY. THE MOST? WELL... YOU'LL BE LEFT IN THE BLANK.





THE LAST CHAPTERS OF THIS COMMUNICATIONS EQUIPMENT STORY HAVE **NOT** BEEN WRITTEN.

THEY ARE BEING LIVED OUT ON THE **BATTLEFIELD**, BY YOU, THE FRONT-LINE SOLDIER, EVERY DAY.

ONE THING WE ALL CAN BE CERTAIN OF: PREVENTIVE MAINTENANCE ON COMMUNICATIONS EQUIPMENT IS **NOT** AN OPTION.

PM **MUST** BE DONE AND DONE WELL IN ORDER TO ENSURE SURVIVAL ON THE MODERN BATTLEFIELD.

HISTORY HAS SHOWN US THAT, UNLIKE THESE LAST EIGHT PAGES, A FAILURE TO COMMUNICATE IS **NO LAUGHING MATTER**.

Aviation Tools...

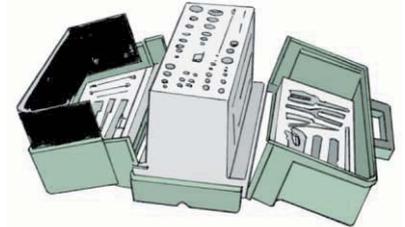
# AVIATION TOOL MARKING



**O**ops, we goofed. In PS 627, Page 39, we said don't mark NATS tools. That wasn't quite correct and was misleading.

Follow AR 385-95 to mark tools

The purpose of that article was to clarify that DA PAM 738-751, TAMMS-A, does not address marking of tools. The article was correct in that sense, but incorrect in that we should've gone a step further and said that tool marking identification is authorized according to AR 385-95, Para 2-2c.3 (e).

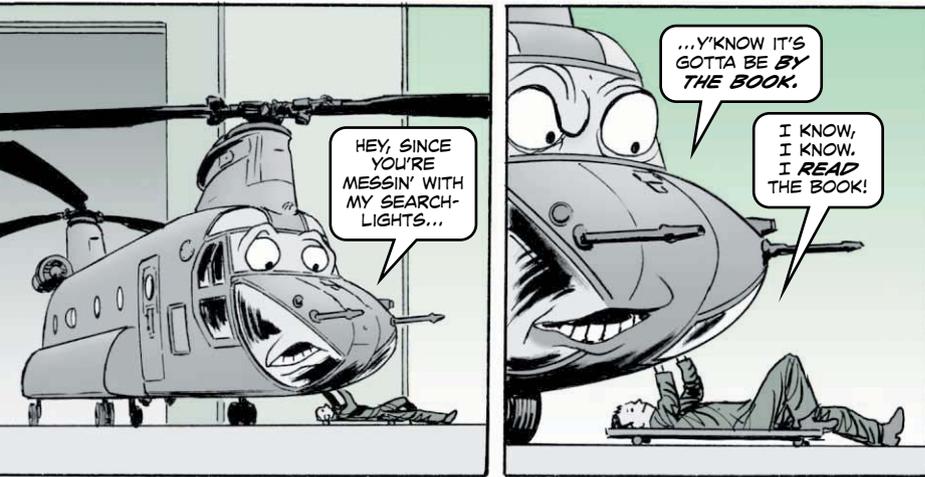


However, AR 385-95 does not spell out how to mark aviation tools for accountability. So unit commanders should establish detailed tool marking procedures that will best fit each unit to prevent FOD.

**No More Airsave Vest Aspirin**  
 ALSE folks, on Page 38 of PS 590, we listed items for crews to carry in their airsave vest. One of them, aspirin, NSN 6505-00-118-1948, has been replaced. NSN 6505-01-436-9606 will get you 20 boxes of 150 individually-wrapped acetaminophen tablets.

[Click here for a copy of these articles to save or email](#)

# LIGHT REPAIR BY THE BOOK



**M**echanics, if the searchlight or landing light on a Chinook isn't working, don't do more than you're supposed to while to fixing it.

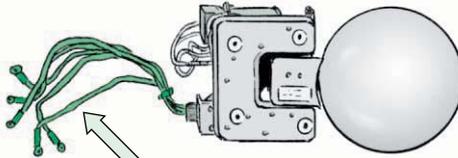
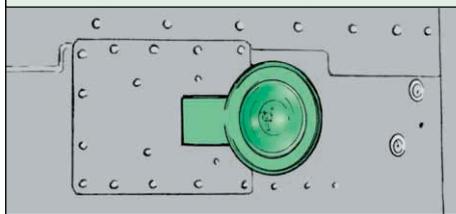
Get your TMs out and do your AVUM inspections and troubleshooting. Don't do AVIM work!

If you have to remove landing lights or searchlights to turn in to AVIM, follow the TM procedures to remove them. **Don't** cut off the light's terminal lugs because it's quicker to get the light out than removing all seven lugs from the terminal board.

Cutting the wires will cause a longer turnaround time, longer aircraft downtime and extra repair work for the AVIM shop.

Do your AVUM mission, but leave the AVIM stuff to AVIM.

Remove light from bird like TM says. **No shortcuts!**



Never cut wires to remove from bird

# Secure 'em or Lose 'em

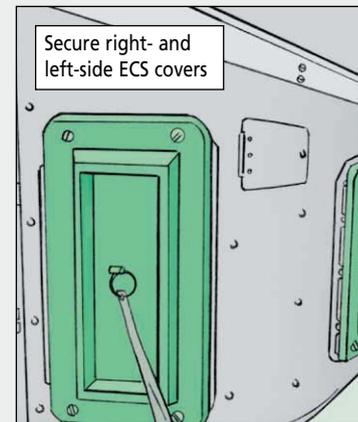


Crews, don't leave your AH-64's environmental control system (ECS) covers half secured or you'll lose them to aircraft rotor wash. And they become FOD.

Fully secure all cover turn lock fasteners on both the right and left side of your bird. Rotor wash can break off unsecured covers.

It's important to get them tight because if sand and dirt get in the ECU condensers, the exhaust fans stop working and won't cool the ECS system. Then the ECS system gets hot and creates failure messages on the multi-purpose display panel (MPD).

Cover yourself by making sure all ECS covers are in place, tightly secured and not hanging off. You'll stay cool in your bird.



# Stuffing With Stuff



**P**ilots and gunners, your IHADSS helmet bag can't take being stuffed! It's never good to stuff extra items on top of the helmet that's in the bag, like you're stuffing a holiday turkey.

**Nothing** goes into the helmet bag but the helmet and the extra visor and housing in its protective bag. Don't get into the habit of cramming the bag with gloves, maps, checklists, knee boards, flashlights, books or other TA-50 stuff.

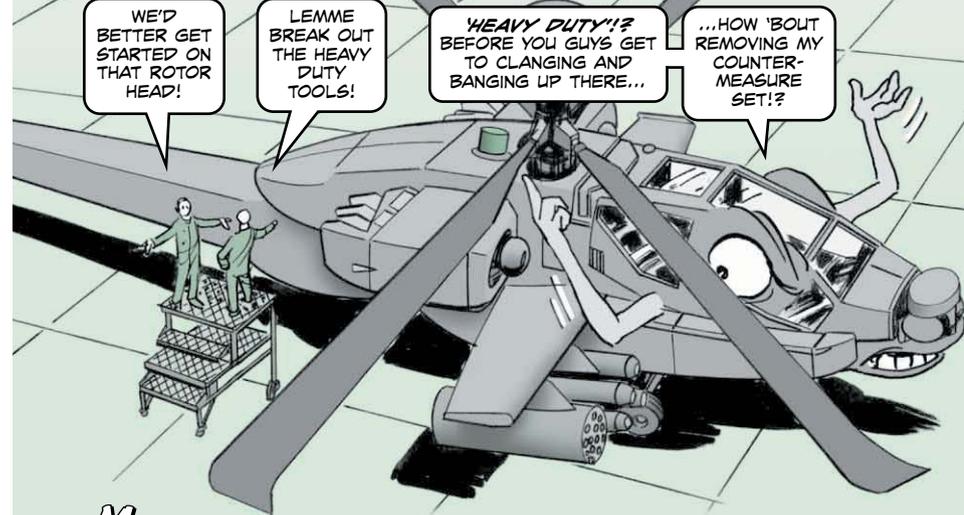
Stuffing the helmet bag can damage the sensors in the helmet or the eyelids that protect them, the mic and boom, the helmet shell, the visors, the helmet wiring and communication harnesses and connectors. That can leave you with a helmet you can't use to communicate with or that can't protect you.

Treat your helmet with care like TM 9-1270-233-23&P says, and it'll take care of your head when you need it most.

Only helmet and accessories go into bag.



# PROTECT COUNTERMEASURE SET



**M**echanics, when doing rotor head maintenance on your AH-64A/Ds, slippery fingers and dropped tools put the countermeasure set in harm's way.

The best preventive maintenance countermeasure when working on the rotor head is to remove the set from the bird. It can be best protected by placing it in a safe/secure container, such as the system's carrying can cover. The short-term storage procedures are on page 2-19 of TM 11-5685-200-34-1.



First, that keeps you from using the set as a step or a stool. Second, if you do accidentally drop a tool or a wrench slips out of your hand as you torque a bolt in the rotor head, the set's not there to get damaged.

Even though the protective cover, NSN 5865-01-109-1800, covers the set, a dropped wrench can still damage the glass mirror panes. At \$46 a pane, that's a hefty financial hit to your unit's budget.

Be safe, rather than sorry, and safely store the countermeasure set when performing rotor head maintenance.

# A Little Q and A



Dear Sergeant J.L.C.,

The new digital, secure voice, AN/PRC-127EF radio, NSN 5820-01-509-9053, does indeed have a headset for hands-free operation. It's NSN 5965-01-509-9022. To use the headset, you'll need adapter, NSN 5965-01-509-9212.

AA batteries are not the preferred option for battery power. You should be using the 3600 rechargeable battery, NSN 6140-01-509-9091, as your primary source of power. To charge this NiMH rechargeable battery, you'll need single battery charger, NSN 6130-01-509-9224, or four-battery charger, NSN 6130-01-509-9216.

As for the TMs, the AN/PRC-127EF is a commercial radio and does not have a TM. When you get the radio it should come with an operator's manual on a CD.

*Half-Mast*



## DON'T DESTROY THEM, TURN THEM IN

Turn in any excess AN/PRC-112 survival radios so they can get back into the supply system. There are soldiers waiting for them!

Excess AN/PRC-112s should be sent to:

Myers and Second Streets  
ATTN: B16 Stock  
Warehouse 2, Bay 1  
Tobyhanna, PA 18466-5059



THE REASON MANY OF THESE RADIOS ARE BEING DESTROYED IS BECAUSE THE DEMILITARIZATION CODE ON THE FED LOG IS "C."



The item manager for the AN/PRC-112 is Bruce Jetter at DSN 992-1191 or (732) 532-1191. His email is [bruce.jetter@us.army.mil](mailto:bruce.jetter@us.army.mil) and his current instructions are to turn in excess radios!

IT  
AIN'T A  
HANDLE!



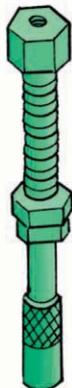
DO NOT-  
WE SAY AGAIN-  
**DO NOT CARRY**  
THE AN/PRC-119  
MANPACK RADIO  
BY THE  
AS-4266A  
LONG-RANGE  
ANTENNA,  
NSN 5985-01-  
425-7305.

IF YOU DO, YOU  
**WILL BREAK** THE  
ANTENNA BASE.

WE KNOW THIS BECAUSE IT HAPPENS TIME  
AND TIME **AND TIME AGAIN!**

CARRY THE RADIO BY THE CARRYING  
STRAP, NSN 5340-01-461-4741. IF YOUR RADIO  
DOESN'T HAVE THE STRAP, ORDER ONE FOR IT!

IF YOU HAVE A RADIO  
WITH A DAMAGED  
ANTENNA **BASE**,  
REPLACE JUST THE  
BASE. ORDER A NEW  
BASE WITH NSN  
5985-01-438-6768.



IF YOU HAVE A RADIO  
WITH A DAMAGED  
ANTENNA **MAST**,  
REPLACE JUST THE  
MAST. ORDER A NEW  
MAST WITH NSN  
5985-01-438-2224.



REPLACING ONE OF THESE PARTS IS MUCH  
CHEAPER THAN ORDERING AN ENTIRE ANTENNA.

# WE KNOW BOSE

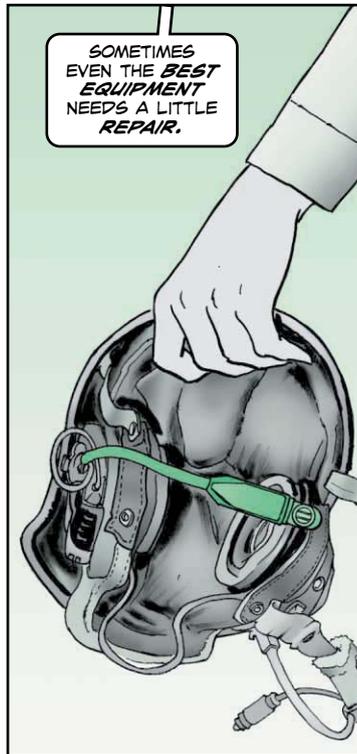
THE CVC, VIC-3,  
BOSE II, HEAD-  
SET-MICROPHONE,  
NSN 5965-01-  
453-2687, IS A  
**WINNER** FROM  
THE FIRST WORD  
YOU HEAR.

BUT I CAN'T  
HEAR **ANYTHING!**



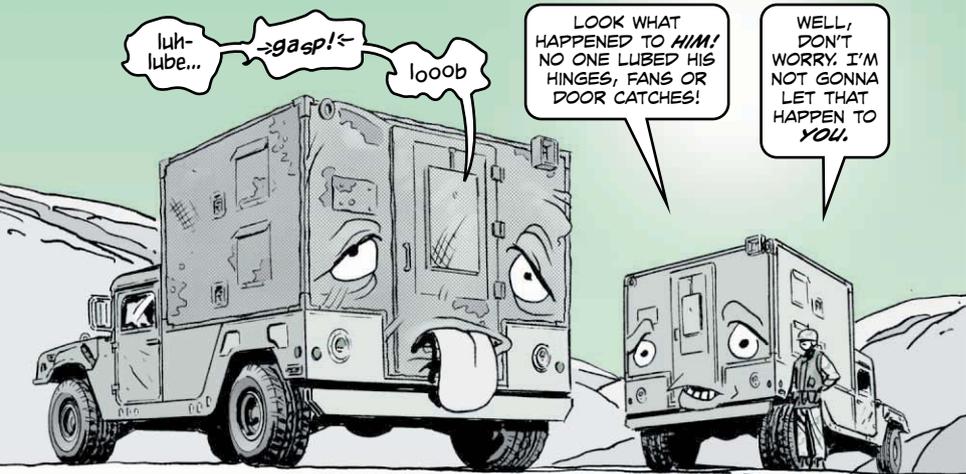
SOMETIMES  
EVEN THE **BEST**  
EQUIPMENT  
NEEDS A LITTLE  
**REPAIR.**

STICK THESE  
NSNs UNDER  
YOUR HELMET  
AND KEEP THEM  
FOR A RAINY  
REPAIR DAY...



Part	NSN
Medium helmet liner	8415-01-470-2821
Large helmet liner	8415-01-470-2840
Earcup assembly	5965-01-464-0220
Ear cushion	5965-01-418-5535
Boom mic assembly	5965-01-516-1236
Boom support mount screw	5305-00-489-0742
Knurled nut	5310-01-443-9064
Shouldered washer	5310-01-443-9063
Slotted washer	5310-01-444-6389
Foam assembly	5895-01-464-0223
Paddle switch (PTT)	5930-01-464-9981
Paddle switch (ANR/TTC)	5930-01-464-9985
Windscreen O-ring	5330-00-248-3836
Windscreen	5965-01-411-1856
Medium pad kit	8415-01-470-2845
Large pad kit	8415-01-470-2856
Battery compartment cover	6160-01-464-0221
Alkaline battery	6135-00-985-7845
Rechargeable battery	6140-01-467-3225

# LUBE IS THE KEY TO YOUR SHELTER



It's a small mistake—not lubricating commo shelter vent hinges, ventilating fans and door mechanisms—but there might be a big price to pay.

TB 43-0124, *Maintenance and Repair Procedures for Shelters*, gives you a lot of leeway when it comes to lubing these areas and because of that, they're often forgotten or neglected. That is, until a hinge binds and then breaks or until a fan freezes. Then your shelter and the electronics inside are open to moisture, dust and dirt, and heat.

Regularly, and you know how often that is for the conditions in your area, you must lubricate door hinges, vent hinges, ventilating fans and door latches. Use lubricating oil, MIL-L-46167. NSN 9150-00-402-2372 brings a quart.



# CLOBBERING CABLE CONNECTIONS



Making cable connections from one commo shelter's signal entry panel to another shelter's signal entry panel should be no big deal.

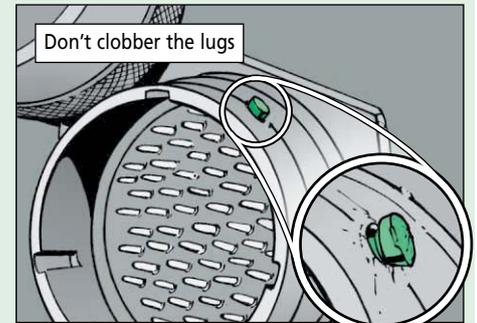
But when you're in a hurry (and when aren't you in a hurry?) and it's dark and you're on your toes reaching up to make the connection, the lugs on the entry panel connectors can easily get torn off.

The lugs match keyways on your cable connectors. When in place, they give you the path to make the connection without damaging pins and then help lock the connector down.

When you ram a connector on without matching the lugs to the keyways, you break off the lugs. Then you've lost your path and the security for your connection.

So protect the path and the lugs. When you make the connections, take your time. Use a flashlight at night. If your buddy makes the connections, make sure he has done it before and knows about the lugs. If you're short, stand on something sturdy.

If a lug is damaged or missing, get your support to replace the receptacle right away. Without the lug in place, you'll damage pins on your cable connector and one problem will become two.



# CAMP OUT ONLINE



**G**oing camping? Before you light out for the territory, explore the Defense Supply Center Philadelphia's (DSCP) Base Camp website at: <http://ct.dscp.dla.mil/ctinfo/basecamp>

The site is devoted to tents and their accessories. Whether you're in the market for a new tent or simply want to further your education, you owe it to yourself to visit Base Camp.

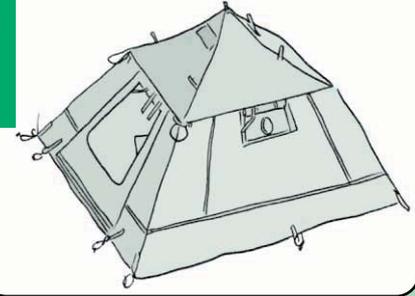
Welcome To DSCP's Basecamp  
*The Tentage Super Store*



Commercial Non-Standard Design DRASH if you require Pop-up Technology



- A wide array of military standard tents, including parts breakdowns with NSNs, price links, photos and drawings, and points of contact for more information.



- Techniques for setting up tents and for cleaning mold and mildew.



- Components of the tentage repair kit, including vinyl-coated polyester fabric for patching.

### Tentage Repair Kit

8340-00-262-5767

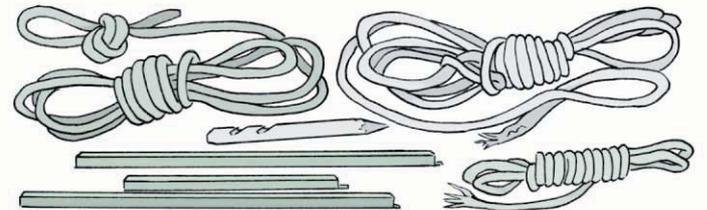
For field, encampment or home base repairs.



Don't take your tents out of service for field repairable damage. Our kit can restore your shelter and prevent small repairs from growing.  
 \*The kit includes the following components  
 \*Note: Due to lack domestic sources for cotton duck this item is unprocureable.  
 Save your old expired service tentage or Use Cloth, Polyester Duck or NSN 8305-01-068-1403, Cloth, Sateen for repairs

- A history of canvas.

- Tent lines, poles and pins. Tarpaulins and transportation and storage covers.



- A quick comparison chart of military tents. Contains NSNs, descriptions and intended uses, shipping weights and sizes. The chart also includes the number of soldiers the tent holds, as well as the number needed to erect or strike the tent and the time required.

- Brief descriptions on members of the family of space heaters (FOSH).

- The web site also notes the technical manuals that support each tent.

Field Sanitation Team...

# FM Good, Clean Fun



FM 4-25.12, UNIT FIELD SANITATION TEAM, (25 JAN 02), IS A **MUST-READ** FOR THOSE RESPONSIBLE FOR FIELD SANITATION.



YOU'LL FIND THE FM AT: [http://www.army.mil/usapa/doctrine/active\\_FM.html](http://www.army.mil/usapa/doctrine/active_FM.html)

Doctrine and Training Publications

FMs, MTPs, STPs, TCs & TMs (except engineering & medical).

Additional Doctrine & Training Publications can be found by Clicking Here.

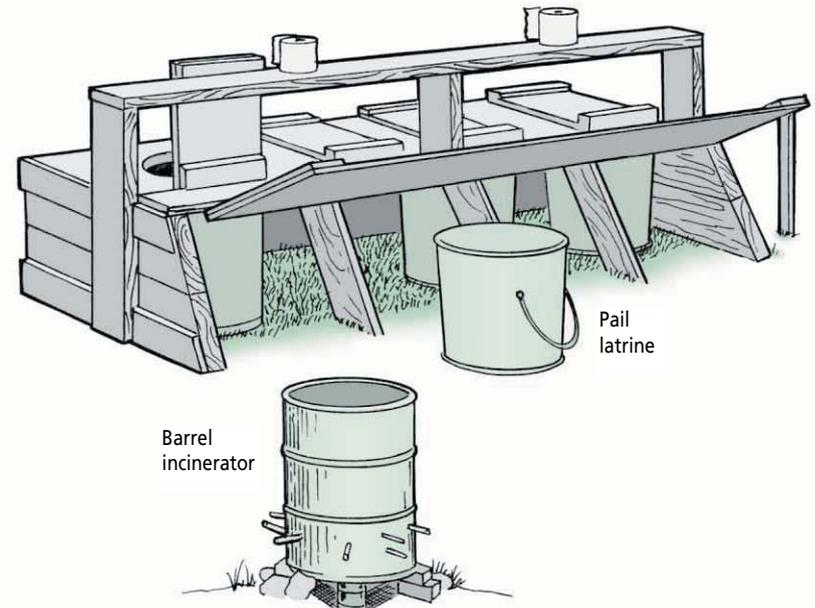
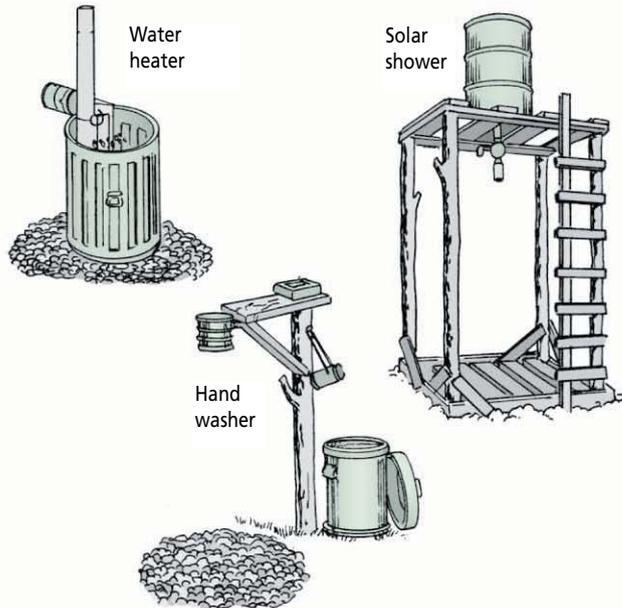
Jump To A Different Publication Series

Active FM			
Pubnum	IssDate	Pub Title	PDF
FM 1	06/14/2001	THE ARMY	PDF
FM 1-02	08/21/2004	OPERATIONAL TERMS AND GRAPHICS	PDF
FM 1-05	04/18/2003	RELIGIOUS SUPPORT	PDF
FM 1-100	02/21/1997	ARMY AVIATION OPERATIONS	PDF
FM 1-112	04/02/1997	ATTACH HELICOPTER OPERATIONS	PDF
FM 1-112	09/17/	UTILITY AND CARGO HELICOPTER OPERATIONS	PDF

ONCE YOU REACH THE WEB PAGE, SCROLL DOWN TO FIND A LINK TO THE FM'S PDF.

WHEN YOU READ THE FM, DON'T OVERLOOK THE APPENDICES. THEY'RE PACKED WITH VALUABLE INFORMATION. HERE'S A SAMPLE...

- Appendix A—Lesson plans for field sanitation training course
- Appendix B—Equipment and materials needed for training; figures and plans for constructing handwashing devices, latrines, grease traps and showers





**B**y now, you probably know about the benefits of a hydration system: cooler water, cleaner taste, hands-free access and a 3-liter capacity. But did you know that these systems need cleaning now and then to stay in top condition?

### Outer Nylon Carrier

WASHING THE OUTER NYLON CARRIER HELPS TO PROLONG ITS LIFE *AND* MAKES IT MORE COMFORTABLE TO WEAR.

HERE'S HOW IT'S DONE...

- First, remove the bladder. Then sweep the carrier with a cloth or soft brush to remove any caked-on dirt. Or scrape off dirt with a dull tool. Never use anything sharp that will cut the fabric or webbing.

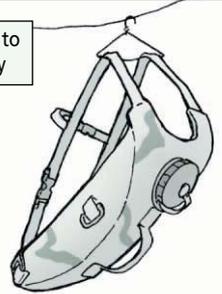
Brush off caked-on dirt



- You can hand-wash or machine-wash the carrier in cold water with a mild laundry detergent. Just don't use chlorine bleach, cleaning fluids or solvents. These products can discolor the carrier, weaken the fabric and shorten its life.

- To clean stubborn, soiled spots—like grease or oil—apply a mix of detergent and water directly on the spots and scrub with a soft brush.
- After washing, rinse thoroughly in clean water until all traces of soap are gone.
- Hang the carrier on a rust-proof hanger and air-dry it. Don't use a clothes dryer. That can fade the carrier and put it through unnecessary wear and tear. And never dry it near a heater or open flame—they'll fade and shrink the fabric.

Hang to air-dry



### Bladder

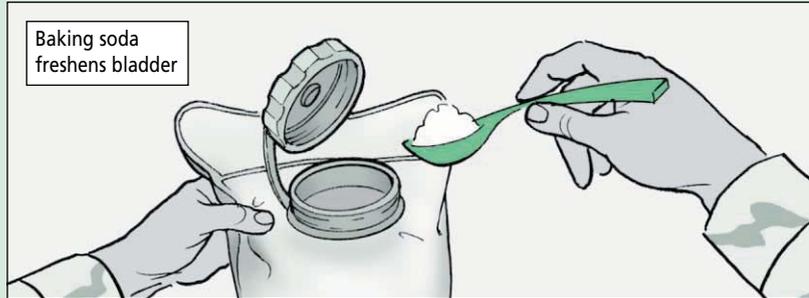
YOU MIGHT SAY THAT KEEPING THE BLADDER CLEAN IS A MATTER OF GOOD TASTE.

A CLEAN BLADDER, DRINKING TUBE AND BITE VALVE KEEP THE WATER FRESH AND TASTING GOOD.

HERE'S THE ROUTINE...

- If you can, remove the bladder from the carrier. Fill it with warm water and some biodegradable dishwashing liquid, NSN 7930-01-418-1128. Scrub the bladder (especially the inside), the drinking tube and the bite valve.

- Every once in a while you may want to freshen your bladder. Add two teaspoons of baking soda to a full bladder of water. Let it soak overnight.

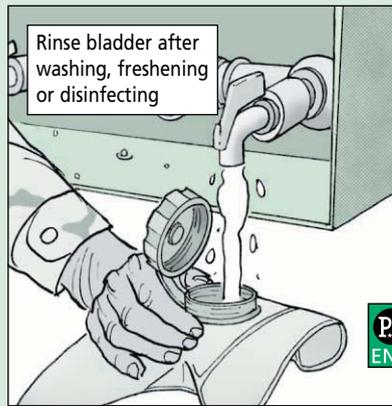


- Nothing spoils the quality and taste of water like mold and bacteria growing in the bladder. Although some newer hydration systems are designed to curb the growth of mold and bacteria, you still might want to disinfect the bladder occasionally. Disinfecting is especially important if the water starts tasting funny or if you haven't used your system for a while.

Fill the bladder with water and add two teaspoons of household bleach. Let it soak overnight.

- Whether you're washing, freshening or disinfecting with bleach, afterwards you'll need to rinse the system thoroughly with clean water. Hang it up to dry with the cap propped open. Make sure all parts are dry before storing them in a cool, dark place.

- Sports drinks and other beverages containing sugar speed up the growth of mold and bacteria in the bladder. If you use sports drinks with your hydration system, make sure you keep it clean. Wash and rinse the bladder, the drinking tube and the bite valve after each use.



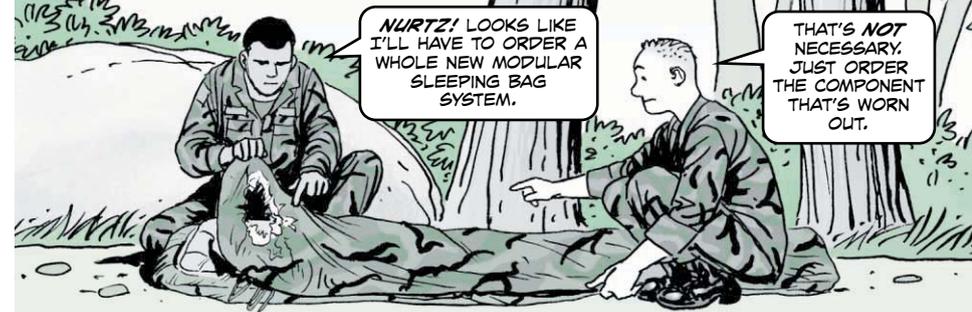
PS  
END

## Keep Water Tablets Pure

If you rely on water purification tablets, NSNs 6850-01-352-6129 or 6850-00-985-7166, for drinkable water, you can't just order them and leave them on the shelf. App C, FM 4-25.12, *Unit Sanitation Team*, tells you to check expiration dates quarterly. The FM also tells you when other potable water chemicals must be checked.

Modular  
Sleeping Bag  
System...

# IT'S NOT ALL OR NOTHING



Dear Half-Mast,

Some components of my modular sleeping bag system (MSBS) are beyond repair. When a component becomes unserviceable, is the whole MSBS classified as unserviceable? Or is there a replacement NSN for each component? I'm losing sleep over this.

SGT D.B.

Dear Sergeant D.B.,

Rest easy. You don't have to classify the whole MSBS as unserviceable just because some components are worn out. There **are** component NSNs; four of them as a matter of fact. Here are all the NSNs you'll need to get a good night's sleep:

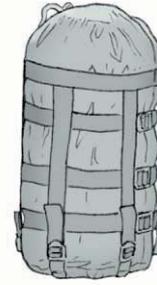
- patrol bag,  
8465-01-398-0685



- intermediate cold  
weather bag,  
8465-01-398-0687



- compression  
stuff sack,  
8465-01-398-5428



- bivy cover,  
8465-01-416-8517



When you order the entire MSBS, NSN 8465-01-445-6274, you get all of the above components.

Half-Mast

AN/UDR-13 Radiacmeter...



SNIFFE  
SNIFFE DO YOU SMELL THAT?

THAT'S ME BURNING UP!

YOU PUT MY BATTERIES IN WRONG!

# Battery Installation Done Right

If you don't install the four AA batteries right in your AN/UDR-13 radiacmeter, not only won't it work but it could be damaged. Here's the right way to install batteries:

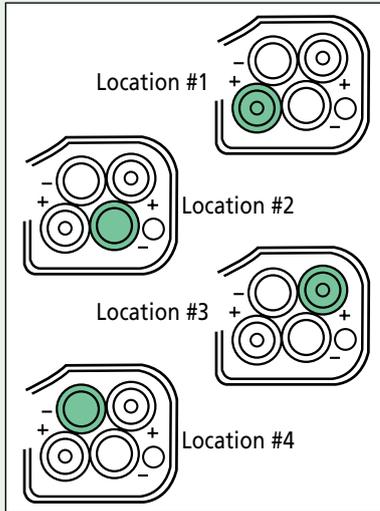
- Hold the radiacmeter horizontally.
- Look inside the battery compartment to check the location of the four contact springs.
- Look at the + and - polarity indicators on the battery door seal.

- Insert the first battery with the + end out in **location 1**.
- Put the second battery in with the - end out in **location 2**.
- Put the third battery in with the + end out in **location 3**.
- Put the final battery in with the - end out in **location 4**.

• Check that all four batteries are correctly seated by pressing lightly on them. They should move up and down freely and spring back when released.

Never try to force the batteries into place if they won't seat right. That can damage the battery box.

- Close the battery door by pressing the door against the gasket while turning the fastener 1/4 turn clockwise until it clicks.



The AN/UDR-13 goes into SLEEP mode when the batteries are removed. After replacing the batteries, turn the radiacmeter on by pressing the ON/OFF button for three seconds. That puts it in its normal operating mode. To turn it off, press the ON/OFF button until “- - -” appears on the display. Release the button and the radiacmeter is off.



M40-Series Masks...

# Got Your Bag?



I'LL BE WATER-LOGGED FOR AWHILE, BUT AT LEAST MY WEAPON'S DRY!

Dear Editor,  
As an NBC NCO, I find some M40-series mask carriers are missing the M1 waterproof bag. And since the bag is rarely used, it's rarely missed—until you need it to prevent the possibility of the mask getting dunked in water. Water can hurt the canister's ability to filter out chemical agent. I suggest all their NBC NCOs check all their M40 carriers for the M1 bag. If any are missing bags, order more with NSN 4240-00-377-9401.

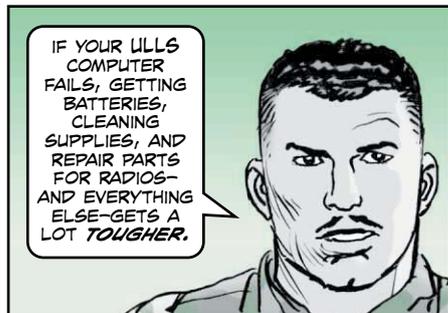
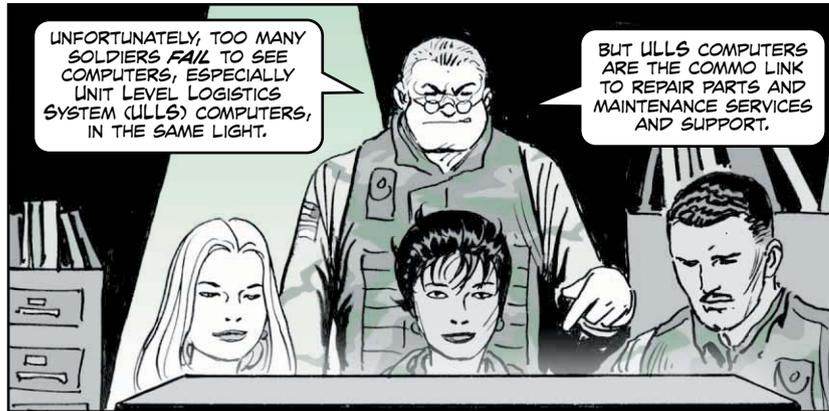
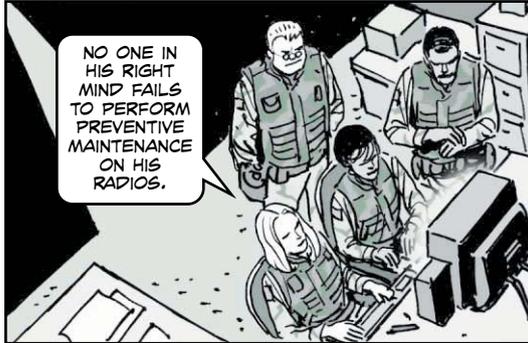
SGT Brandon Walter  
A Co, 46th Engr Bn  
Ft Polk, LA

GLUB= YOU SHOULD'VE THOUGHT ABOUT ME, TOO!

MY WATER-PROOF BAG IS GLUB= COULDA KEPT ME SAFE!

**Editor's note:** You've bagged that problem, Sergeant. Remember, the bag should be used only when there's a possibility of the mask being submerged. If you leave the mask in the bag, you can hurt the facepiece's protective ability. Store the bag in the left end pocket of the carrier.

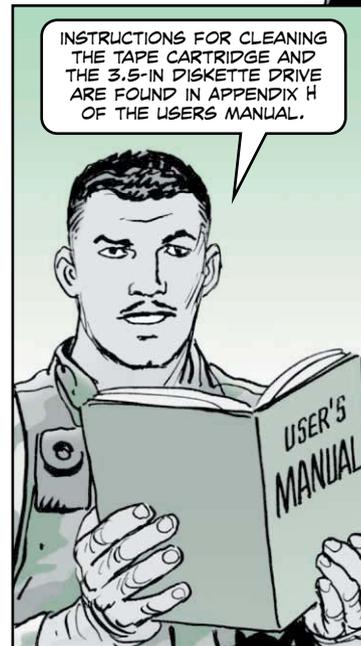
# KEEP MAINTENANCE COMMUNICATIONS OPEN



THE ULLS-G USER'S MANUAL DESCRIBES COMPUTER PMCS.



- Before starting PMCS, shut off all power to the computer and peripheral equipment.
- Ensure that dust doesn't clog computer, monitor or printer vents.
- Don't allow paper, books, tent walls, etc., to block vents.
- Ensure cable connections are firm. Lightly tighten with a screwdriver.
- Never use sprays, liquids, or soaked cloths on the case, keyboard, or peripheral equipment.
- Clean cases and keyboard cases with a non-detergent cleaner or damp cloth.
- Turn desktop keyboards upside down. Use a small, soft brush to remove foreign objects.
- Clean laptop keyboards by leaning the laptop on its side and brushing out foreign objects.
- Follow the printer manual for cleaning.
- Use the tape cartridge cleaning kit or foam swab and isopropyl alcohol to clean the tape drive.
- Turn the system on and use a 3.5-in diskette cleaning kit.



NSN	Description
7530-00-145-0414	Paper, tabulating
4920-01-243-0571	Foam swabs
6505-00-655-8366	Isopropyl alcohol, 1-pint
5130-00-236-2140	Screwdriver, flat tip
Base Supply	3.5-in diskette drive cleaning kit
Base Supply	3.5-in diskettes

SF 368s...

GOT EQUIPMENT PROBLEMS? TURN IN AN SF 368.

DON'T JUST TALK ABOUT PROBLEMS... WRITE 'EM DOWN ON AN SF 368.

# PRODUCT PROBLEMS? DON'T LET YOUR IDEAS GO TO WASTE!

The Army provides you with state-of-the-art equipment, but there is always room for improvement. And sometimes you need to report equipment problems.

Good ideas don't go anywhere and failures don't get corrected unless you submit them on a SF 368, *Product Quality Deficiency Report (PQDR)*.



- The item needs to be improved.
- The part is defective.
- The item does not work when it's installed, plugged in or turned on for the first time.



- Provide follow-up if the contractor has not taken timely corrective action on the PDQR to provide replacement or repair.
- Join with similar problems indicate a systemic problem requiring a design change.
- Document ineffective contractor action which can prevent future contracts.
- Track failure rates in order to estimate future buys and to guarantee spare part availability in the supply system.
- Help contracting officers negotiate solutions and corrective actions.

When you submit an SF 368, you'll receive an automatic close-out letter describing the solution taken at the time the PDQR is closed out. You'll also receive a survey to comment on the effectiveness of the corrective action.

DLA/DCMA is notified so specific problems can be identified at the contractor's facility.

You may get credit authorization for your defective items.

SF 368s suggest ways to make maintenance easier, improve component durability and design, and provide missing or correct inaccurate information. As a result, equipment can work better, faster and cost less. Additional information about SF 368s is found in DA Pam 738-751 for aviation and DA Pam 750-8 for all other items.

The preferred way to submit an SF 368 is online at:

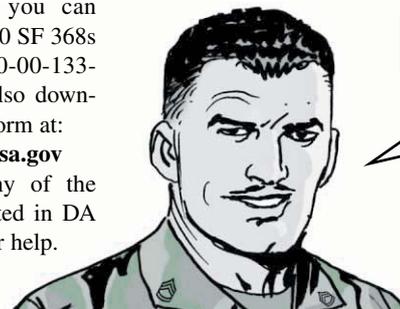
<https://aeps.ria.army.mil/aepspublic.cfm>

(Scroll down to the purple bar that says, "Submit Quality Deficiency Reports.")

If necessary, you can order a pad of 100 SF 368s with NSN 7540-00-133-5541. You can also download an SF 368 form at:

<http://www.gsa.gov>

or call/email any of the PDQR POCs listed in DA PAM 738-751 for help.



REMEMBER, TALKING ABOUT THE PROBLEM ISN'T GOOD ENOUGH.

WRITE YOUR PROBLEM DOWN ON AN SF 368 SO IT GETS SOLVED!

IT'S IN THE DA PAMS!

# Connie's Post Scripts

## TV Training for Armorers

Armorers, if you want a quick course on inspecting, repairing and maintaining rifles and machine guns, two tapes are available that do just that. TVT 10-109, PIN 710417, covers the MK 19 and M249 machine guns and the M9 pistol. TVT 10-111, PIN 710593, deals with the M16A2 rifle and M60 machine gun. Get the tapes on-line at <http://dodimagery.afis.osd.mil/davis>

## Easier AEPS Access

Soldiers no longer need to apply for an account to use the Army Electronic Support (AEPS) website. If you have an Army Knowledge Online (AKO) account, you can use your AKO ID and password to access the AEPS website, which has info on equipment modification work orders, training, maintenance, on-line shopping for your unit, and logistics.

## M68 Sight Cap Strap

The NSN for the protective cap wire assembly has changed in the M68 reflex sight's TM 9-1240-413-12&P. The wire assembly is now called a rubber strap and its NSN has changed from NSN 1240-01-440-7609 to NSN 5340-01-511-2153. Make sure you have the July 2004 edition of the TM, which has up-to-date NSNs.

## Black Hawk PMCS Intervals Change

Inspection intervals for Black Hawk helicopters were revised by Safety of Flight Message UH-60-05-SOF-02 (22 Mar 05). PMS-1 becomes a daily PMD and a 40-hour PMS. PM services change from 500 to 350-700 flight hours. Changes to TM 1-1520-237-23 were also announced. This and other safety messages can be found on the AEPS website at:

<https://aeps2.ria.army.mil/serviced.cfm>

AMCOM Aviation Safety Messages can be found on the AMCOM website at:

<https://ams14.redstone.army.mil/safety/sof/>

Both websites require an AKO logon and password.

## SCALES HARD TO READ?

If the scales on your machine gun traversing and elevation mechanism are hard to read, try a stick of engraving filler, NSN 8030-00-526-1454. Rub the filler over the scales and wipe off the excess. The filler sticks in the scales' engravings and makes them easier to read. The filler should work on any equipment's engraved scales.

## Combat Vehicle AOAP Intervals

The AOAP sampling interval for all tracked combat vehicle engines and transmissions in SWA is now set at 100 hours of operation, 750 miles, or 60 days, whichever comes first. Remember, this is only for tracked combat vehicles in SWA! This new requirement also supersedes the Bradley transmission AOAP sampling info that appeared on Page 61 of PS 630 (May 05).

## SWA TIRE WHEEL ASSEMBLIES

If you're in SWA, take a look at this TACOM AEPS website,

[https://aeps2.ria.army.mil/commodity/tire\\_wheel-assy-item-mgr.xls](https://aeps2.ria.army.mil/commodity/tire_wheel-assy-item-mgr.xls)

for 40 new tire/wheel assemblies used on light, medium and heavy tactical assemblies. The listing includes NSNs, item managers and prices. The NSNs allow tire maintainers to remove and replace their tires as an assembly. Front-line tactical unit orders will be filled first. These new assemblies are repairable items, so make sure you turn in the old assemblies to your local SSA.

## HMMWV Suspension/Steering Upgrade Kits

Having problems with your suspension and steering components on your basic or A1 model HMMWV? You no longer need to order each and every part individually. TACOM and the PM for Light Tactical Vehicles have developed a kit that improves the suspension and steering components, especially those with add-on armor.

The new kit comes with NSN 2530-01-524-7319 and includes many of the suspension and steering components currently found on the M1097A2. The kit takes about 14 hours to install and requires some frame welding. HMMWVs in SWA will have the kit installed when they go through the TWV Refurbishment Center, so see your DLA Customer Service Representative or TACOM LAR for more information before you order.

Keep in mind that this kit will not change the gross vehicle weight (GVW) or allowable payload of your vehicle. That would require several other configuration changes for performance and safety reasons.

Kits are being procured and managed by DLA, S9C. Work continues on incorporating recommended changes to the kit, which will not only allow the kit to be used as an upgrade, but still makes it a great kit for the repair of suspension/steering components on a tired HMMWV. This is expected to happen sometime in the Jun 05 deliveries. First priority is given to trucks in SWA. CONUS may not be able to get kits until the Sep 05 timeframe.

## TAMMS PUB REPLACED

DA Pam 738-750, The Army Maintenance System (TAMMS), has been replaced by DA Pam 750-8, TAMMS Users Manual, (25 Feb 2005). The new pamphlet can be found on the Army Publishing Directorate website at: <http://www.army.mil/usapa/epubs/index.html>

## AOAP Sampling Intervals Moved

Army Oil Analysis Program sampling intervals and instructions have been moved to TB 43-0211 (01 Dec 04). The TB can be found at LOGSA's Electronic Technical Manual website at: <https://www.logsa.army.mil/etms/online.htm>

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?

Click here for a copy of this backcover to save or email

HEY! *THANKS, SMITTY!* YOUR MAINTENANCE SURE SAVED MY BACON TODAY!

PRIVATE JONES IS AWARDED THE ARMY COMMENDATION MEDAL FOR MAINTAINING EQUIPMENT.

**SOLDIERS ARE  
MOTIVATED  
WHEN  
PEOPLE SHOW  
THEY CARE!**

GOOD WORK, RODRIGUEZ! THAT'LL KEEP US RUNNING!

