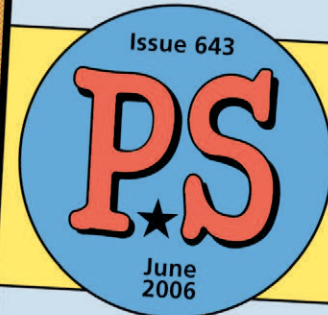




**PS - 55  
YEARS OF  
SUPPORTING  
SOLDIERS...**

**...WITH  
MAINTENANCE  
AND LOGISTIC  
INFORMATION...**

**...AND WE'RE  
JUST GETTIN'  
STARTED!**



# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-643

Approved for  
Public Release;  
Distribution is  
Unlimited



**MOVE... SHOOT...  
COMMUNICATE...**

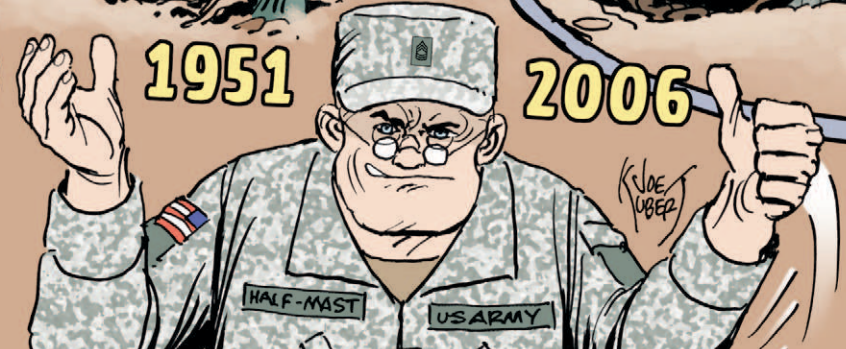
**THE METHODS  
MAY HAVE  
CHANGED IN THE  
55-YEAR HISTORY  
OF PS, BUT  
THE MESSAGE  
HASN'T!**

**PM IS STILL  
THE KEY. SEE  
PAGES 40-49  
FOR THE BEST  
INFO ON COMMO  
CABLE PM!**

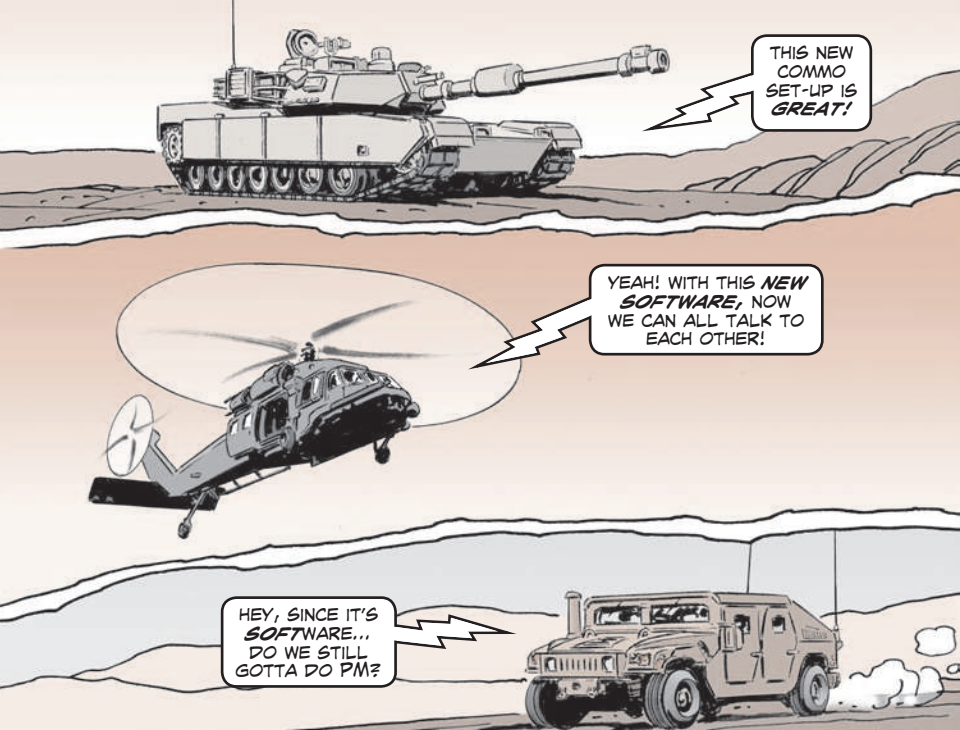


**1951**

**2006**







## HIGH-FALUTIN' COMMO STILL NEEDS *DOWN-AND-DIRTY* PM

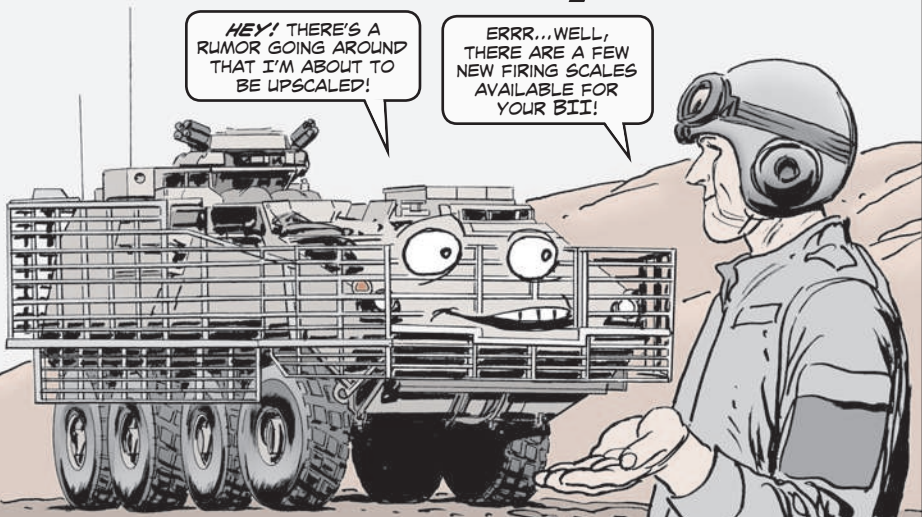
Coming to a tank, HMMWV, or aircraft near you over the next decade is the joint tactical radio system (JTRS). JTRS will eventually make sure that no matter what piece of communications equipment you have, you'll be able to "talk" to any other piece of commo gear.

The heart and soul of JTRS is computer software. It is a family of software that will make sure everyone is on the same sheet of music singing the same tune.

With this emphasis on software, it will be easy to dismiss the hardware as secondary. When that happens, preventive maintenance falls off and equipment falls apart. The best software in the world will not work if the hardware it's programmed into is not top-notch.

The worst thing in battle is a weapon that won't fire, but coming in a close second is a radio that won't communicate. Make sure as new radio equipment and new communications techniques hit the field that basic PM is not neglected. High-falutin' equipment still needs down-and-dirty preventive maintenance. Without PM, you'll be reduced to sending smoke signals on the modern battlefield.

# BII Goes Upscale



**O**perators, it's time to get out your stubby pencils and make a few additions to the BII in your M1129E1 mortar carrier vehicle's TM 9-2320-311-10-12.

All items are from CAGE 19200. Here's the list:

Item	PN	NSN 1220-01-533-
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg M933 and M934	13011770	8119
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg WP M929 and XM929	13011772	8123
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg illuminating M930	13011774	8121
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg illuminating M930E1	13011776	8124
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg IR illuminating M983	13011778	8126
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg FRPC M931	13011780	8122
Scale, graphical firing: for 120mm mortar Stryker 120mm Ctg HE M934A1	13007850	8125

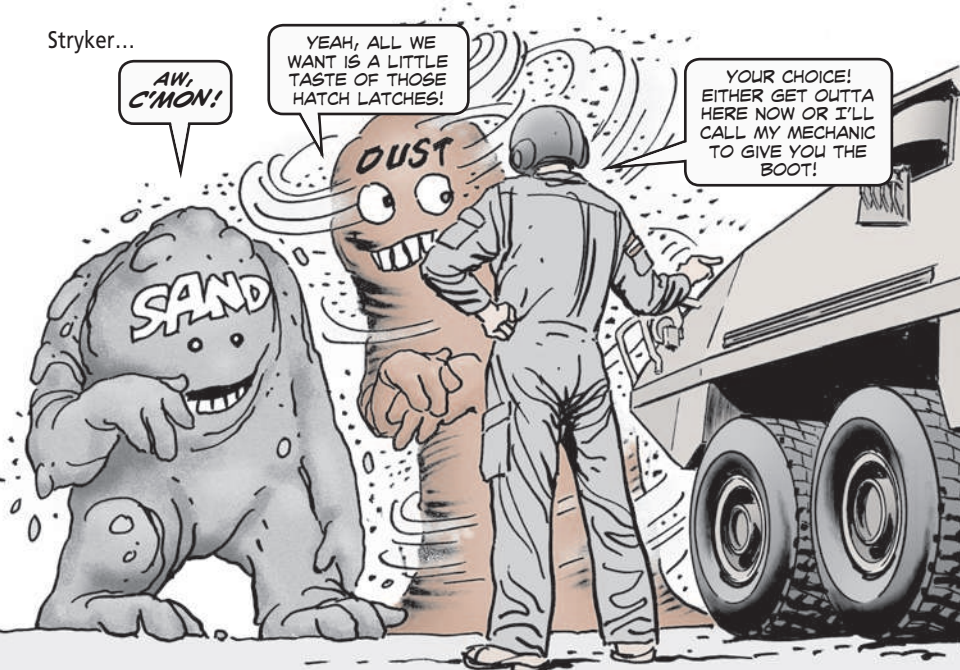
Make a note until the next revision to the TM.

Stryker...

AW,  
C'MON!

YEAH, ALL WE  
WANT IS A LITTLE  
TASTE OF THOSE  
HATCH LATCHES!

YOUR CHOICE!  
EITHER GET OUTTA  
HERE NOW OR I'LL  
CALL MY MECHANIC  
TO GIVE YOU THE  
BOOT!



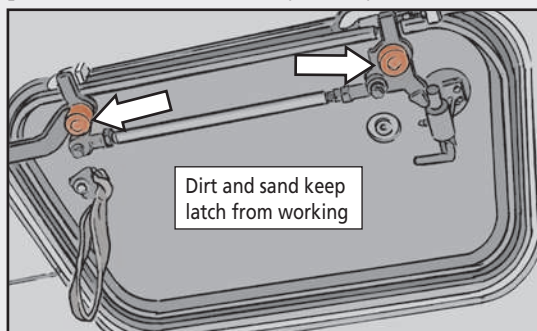
## GIVE DESERT TROUBLE THE BOOT

**T**hose old desert enemies—dust and sand—are up to no good again. This time they're getting up close and personal with the hatches on your Stryker.

The two slowly work their way into the cracks and crevices of the latches on the troop, squad leader's and commander's hatches. The latches get stiffer and more difficult to open and close.

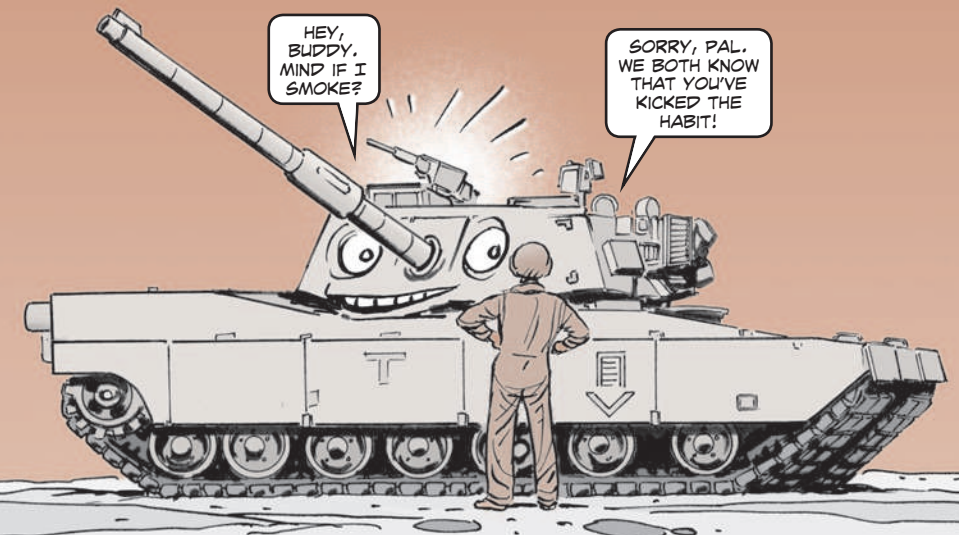
Eventually the latches seize up altogether. Not good if you're in the middle of a fight.

Notify your mechanic as soon as you notice the latches are sticking. He'll take the fight to those desert foes by disassembling, cleaning and lubing the latch mechanisms.





# Kicking the Habit



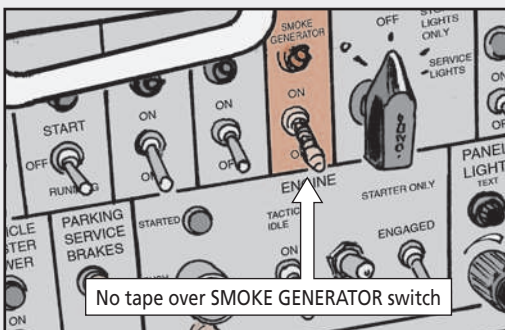
**D**rivers, your tanks have kicked the smoking habit!

So if you've been trying to use the smoke generator, give it up. All current M1-series tanks use JP8 fuel. And JP8 **won't** smoke!

Now that doesn't mean you should physically disconnect the smoke generator system. Nor should you put tape over the smoke generator switch. In fact, neither action is authorized by TACOM.

Why? Well, just because your tank uses JP8 today, doesn't mean the fuel won't be changed to something else in the future. And if that fuel allows smoking, you'll want the smoke generator system to be up-to-snuff.

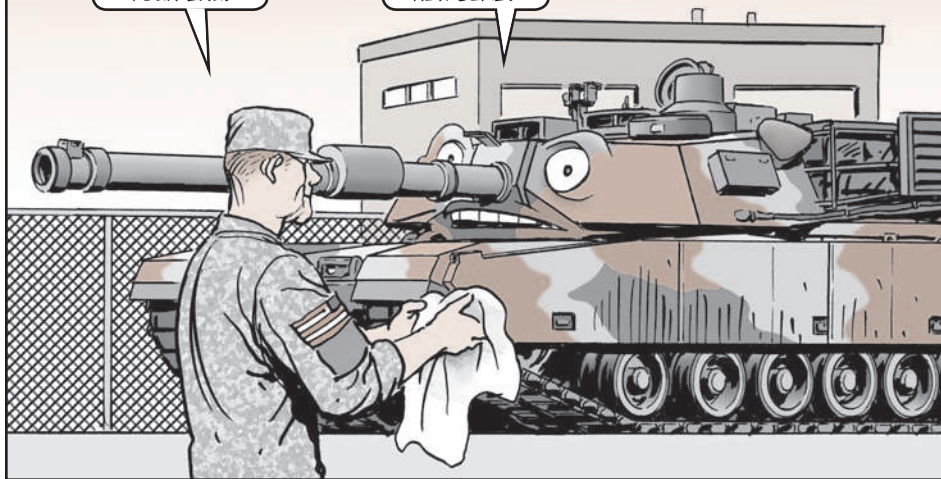
So, keep the smoke generator mission-ready, but don't try to use it.



# NO SEAL A BIG DEAL

WELL, THAT  
TAKES CARE OF  
YOUR LRU!

YEAH, BUT DID  
YOU PUT IN A  
NEW SEAL?



**M**echanics, far too many tank line replaceable units (LRU) are being put back into service after a repair job without new seals.

Using the old seal—or no seal at all—means moisture, dust and other contaminants get inside and damage the sensitive electronic components inside the LRU. Pretty soon, the LRU has to be repaired or replaced once again.

So make sure you discard the old seal and put a new one in its place. Then, remind tankers to keep high-pressure water and steam away from LRUs.

## M1 Tank MILES Help

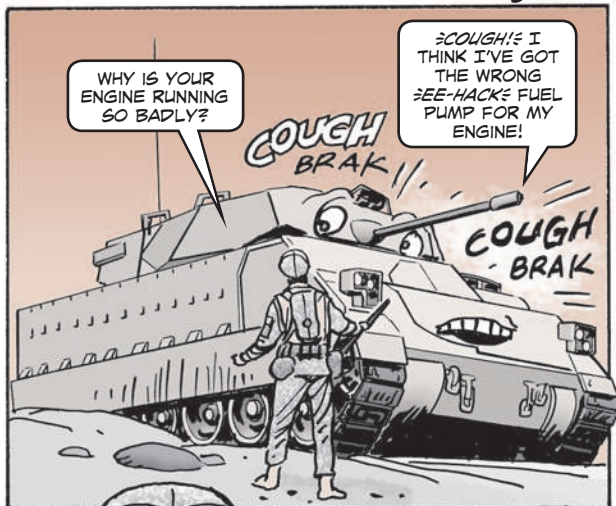
If you train with the multiple integrated laser engagement system (MILES) on your M1-series tank, you need to get a copy of Change 1 (16 Aug 05) to TM 9-1265-373-10-1. The change contains important info on protecting firing circuits in the M1 family of vehicles.

## Penetrating Oil

Got a part, nut, screw or hinge that's rusted in place? A few drops of penetrating oil will get it moving in no time. NSN 6850-00-973-9091 brings a box of 12 10-oz spray cans. Get a box of 24 16-oz bottles with NSN 6850-00-508-0076.

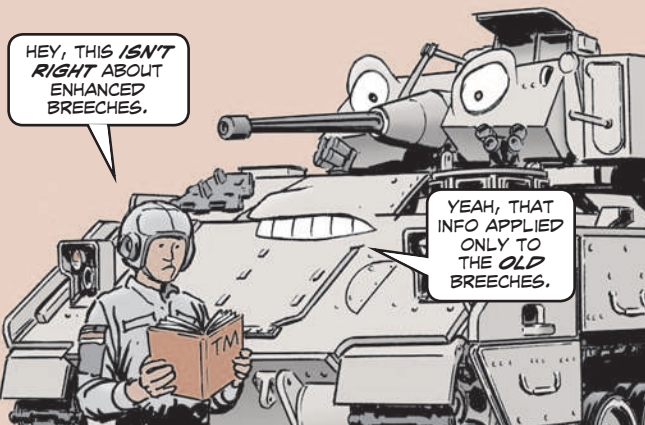


# Nix the Mix on Fuel Pumps



Vehicle	Engine	Engine, NSN 2815-01-	Fuel Pump, NSN 2910-01-
MLRS, Bradley A0	500 HP	105-6445	217-8309
MLRS A1	500 HP Centry	463-7941	479-2471
MLRS A1	600 HP Centry	509-3958	514-7372
Bradley A2, A2 ODS, Linebacker, BFIST	600 HP	290-1290	384-5304
Bradley A2, A2 ODS, A3, Linebacker, BFIST	600 HP reduced white smoke	423-0929	432-0373

# M242 TM Wrong on Breach Inspection



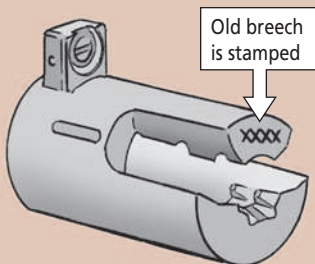
**T**he M242 automatic gun's TM 9-1005-200-23&P is misleading in a couple of places on the rounds count replacement criteria for the enhanced breach assembly, PN 12524527.

The information for Step 1 on WP 0051 00-2 is accurate about the rounds-count inspection and replacement procedure.

But the information on WP 0051 00-3 is misleading. There is no mandatory rounds-count replacement for the enhanced breach assembly, just an initial inspection at 25,000 rounds and every 5,000 rounds after that.

Step 3 ("Stamp breach assembly") on WP 0051 00-3 is for the standard breach, PN 12524370, only. The enhanced breach does not need to be stamped and will not be replaced at 25,000 rounds unless it's unserviceable.

Enhanced breach does not need to be stamped



Step 4 on WP 0051 00-4 is also incorrect about inspection procedures for breach assemblies missing DA Form 2408-4. Sub-step c. says to replace the enhanced breach at 25,000 rounds. That's wrong—mark through that. If the breach is serviceable and there is no DA Form 2408-4, treat it as though it has fired 25,000 rounds and inspect it every 5,000 rounds. But keep using it as long as it passes inspection.

These mistakes will be corrected in the next change to the TM, which should come out soon.

If you have any questions about the M242, contact TACOM's Christopher Thomas at DSN 793-7039/(309) 782-7039 or email:

[christopher.d.thomas2@us.army.mil](mailto:christopher.d.thomas2@us.army.mil)

If you're not sure if you have an enhanced breach, see Para 2 on WP 0002 00-4.



M113-Series FOV...

WE'D BETTER GET STARTED ON THAT RAMP PMCS!

YEAH, THOSE ARE **MONTHLY** CHECKS NOW!

## BEEFED-UP RAMP IS A HEAVYWEIGHT

The ramp on an M113-series vehicle is heavy enough to begin with, mechanics. But as more armor was added, it got a whole lot heavier—going from 500 to 1,300 pounds!

While that's within the weight limit for the ramp pump—2,400 lbs (± 120 lbs)—the extra weight will stress the system. Ramp pump failure, fluid leaks and broken wire ropes due to rust, routing problems and damage are right at the top of the failure list.

That makes a good PMCS even more important. Vehicles with additional armor should be inspected monthly. Here's how:

### Ramp Pump and Cylinder

1. Check the hydraulic ramp pump and lines for leaks while raising and lowering the ramp.
2. **With the hydraulic reservoir empty**, remove the quick disconnect fluid return from the control valve to the fluid reservoir and check for blockage. Replace if damaged.
3. Remove the high-pressure supply hose quick disconnect from the control valve to the ramp pump and look for blockage. Replace the hose or valves if necessary.
4. Remove the rear floor plates and make sure the hydraulic cylinder is seated properly. The shaft should also move freely in the cylinder.
5. Look for blockages in the breather hose and hydraulic cylinder supply. Replace the hose if it's damaged.
6. Double-check to make sure all hoses are connected, then refill the hydraulic reservoir.

Check pump and lines for leaks

Hydraulic cylinder seated properly?

### Wire Rope

1. Make sure the wire rope is routed properly over the pulleys to the cylinder with no slack. The pulleys and hinge should not be binding or rusted.
2. Inspect the wire rope for nicks, flat spots, rust, broken strands and other visible signs of wear and corrosion. If you see any rust at all, **replace the wire rope**.
3. Lube the wire rope with a coat of wire rope grease, NSN 9150-00-530-6814.

Rope routed properly over pulleys?

Inspect wire rope for damage and corrosion

### Hydraulic Reservoir

- Tap the breather valve on top of the hydraulic reservoir. It should move up and down as you press and release it. If not, the breather is clogged and should be cleaned with dry cleaning solvent or replaced.
- Make sure all hoses are connected and the hydraulic reservoir is full. Fluid should be visible at the halfway point in the sight glass when the ramp is **completely lowered**.

Tap breather cap to check for clogs...

...and make sure fluid is halfway in sight glass

**CAUTION IS THE WATCHWORD!**

### Cautions

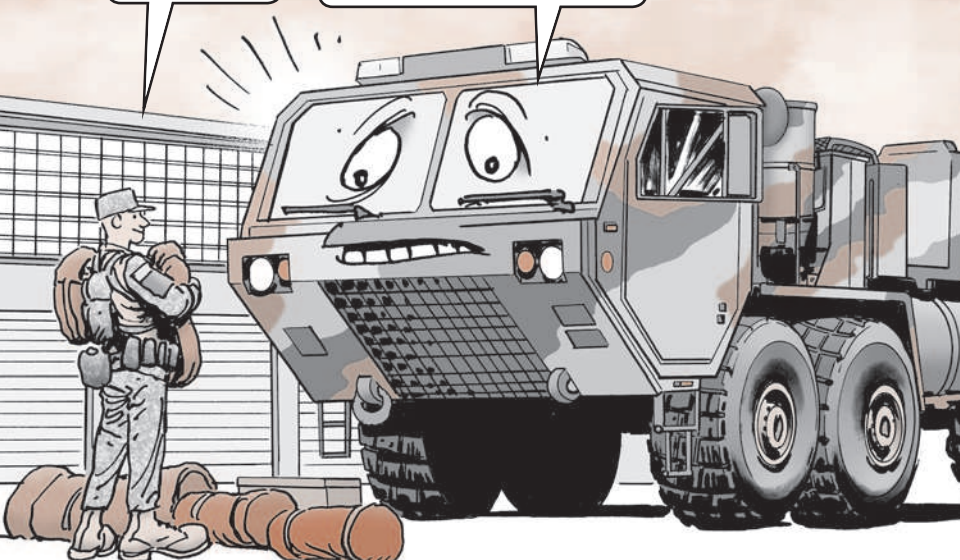
Remember to open the hull drain plugs after parking the vehicle. That drains water out of the hull and prevents rust. Make sure you use a drip pan and dispose of the contents in an appropriate container.

Never add more weight—like hanging extra supplies—to the ramp. Extra weight could exceed the pump's pressure limits and cause pump failure. You will also stretch the wire rope to a point where it cannot be adjusted to allow the ramp to close.

# Watch Your Step!

I'VE GOTTA GET  
**ALL** THIS GEAR  
STOWED ON TOP  
OF YOUR CAB.

YEAH, WELL, YOU'D BETTER  
KEEP THOSE BIG FEET OFF MY  
FUEL/WATER SEPARATOR!

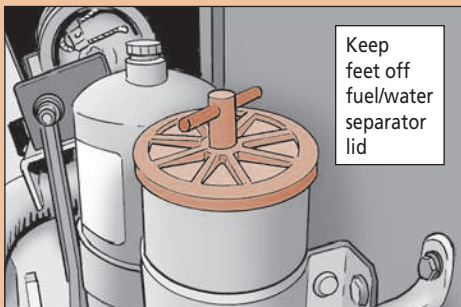


**O**perators, your HEMTT would appreciate a little less fancy footwork when you climb up on the cab.

It seems quite a few of you are using the fuel/water separator as a step to get up top. Unfortunately, that often leads to a cracked or warped lid on the fuel/water separator.

That lets air into the fuel/water separator. Since the separator is under suction, fuel could eventually stop flowing to the engine.

So, from now on, consider the fuel/water separator to be a “no step zone.”



Keep  
feet off  
fuel/water  
separator  
lid



# KEEP YOUR NECK OFF THE CHOCKING BLOCK

**S**ure the trailer's brakes are *supposed* to lock on and stay on when you uncouple from your tractor truck. **Just don't bet on it!**

If your trailer's parked on a slope, it may roll away. Then all kinds of bad things can happen!

That's the **reason** for chock blocks. Wedge 'em under the trailer wheels and your trailer will **stay put**.

You need **two blocks**. On level ground, you set one chock in front of a wheel on one side and the other chock behind a wheel on the opposite side. If your trailer's parked on a slope, you place both chocks in front or back, depending on whether the trailer is pointed uphill or downhill. In either case, the chocks go on opposite sides.



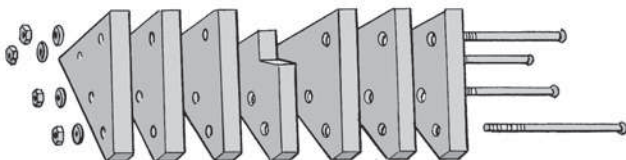
NSN	Material	Size (LxWxH in inches)
2540-01-271-7167	Rubber	7 x 6.5 x 5.38
2540-00-678-3469	Wood	8 x 9.5 x 8
2540-01-459-4266	Rubber	9 x 15 x 6
2540-00-288-2873	Aluminum	9.438 x 8 x 5.75
2540-00-769-5048	Steel	11.25 x 11.5 x 5.5
2540-00-912-1848	Aluminum alloy	12 x 15 x 9.375
1730-00-294-3695	Wood	14 x 6 x 4
2540-01-165-6136	Wood	15.5 x 7.75 x 5.75
2540-01-184-4897	Aluminum alloy	18 x 18 x 1.75

You can also make your own chock blocks out of lumber or wood scraps. Use another chock block as a pattern for size and make it like this:

Nuts, NSN  
5310-00-880-7744

Flat washers, NSN  
5310-00-809-3078

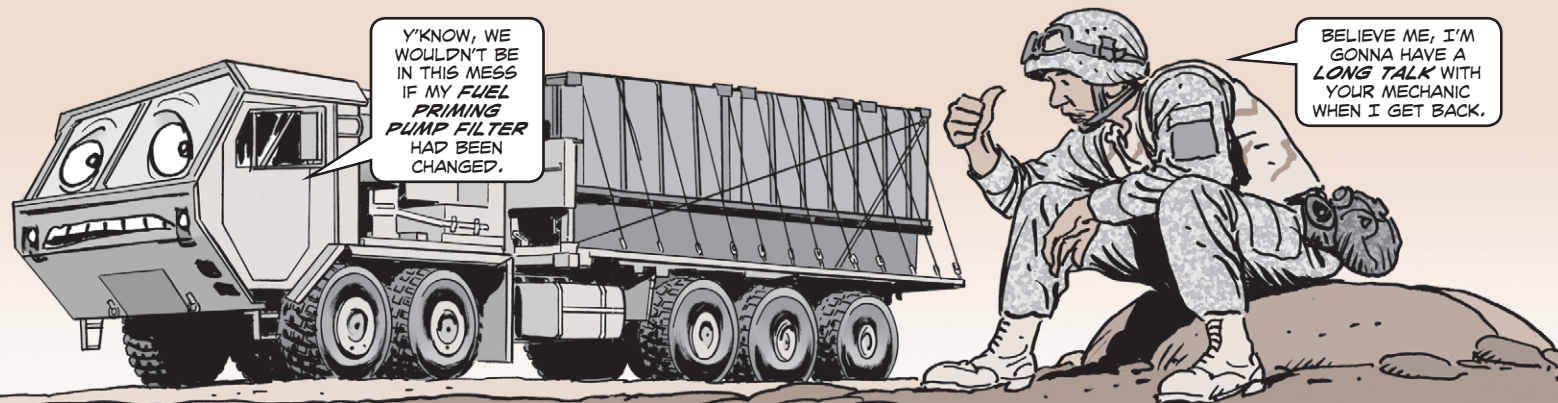
Bolts, NSN  
5306-00-358-6518



Before you fasten all of the pieces together, make sure the assembled chock will fit in your trailer's stowage bracket.

Connect the two chocks at the center notches using chain, NSN 4010-01-065-6955, and two chain hooks, NSN 4030-00-153-8711.

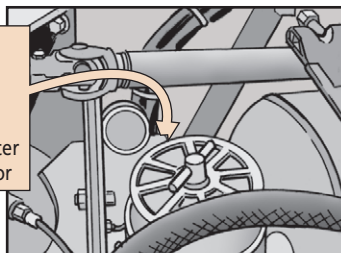
# CHANGE PRIMING PUMP FILTER



**PLS** mechanics, don't be chumps and forget about the priming pump!

The electric priming pump, NSN 2910-01-408-1530, pressurizes the vehicle's fuel system. Because the pump sits out of sight behind the fuel/water separator, it's often overlooked when it comes to maintenance.

Priming pump is hidden behind fuel/water separator



Dirty fuel clogs the filter and the engine runs rough or not at all. Even worse, a clogged filter can make the pump seize and burn up.

So change the filter, NSN 2910-01-054-6990, annually or every 6,000 miles, whichever comes first.



## NEED SMALL ARMS HELP? NEED DEPOT REPAIR?



If your unit is preparing to deploy, the Army has an assistance team that will help armorers get their pistols, rifles, and machine guns ready for battle.

The Small Arms Readiness and Evaluation Team (SARET) will pay your unit a visit and do small arms inspections and repairs on site. The team is composed of small arms technicians from TACOM-Rock Island Arsenal and Anniston Army Depot. SARET prefers to do brigade-size inspections over a two-week period. Units pay only for parts used in repair.

To schedule a SARET visit, contact TACOM's Tom Jefferson at DSN 793-3394/(309) 782-3394 or email: [jeffersont@ria.army.mil](mailto:jeffersont@ria.army.mil) or contact Kevin Moore at DSN 793-2359/(309) 782-2359 or email: [kevin.o.moore@us.army.mil](mailto:kevin.o.moore@us.army.mil)

### Depot Repair

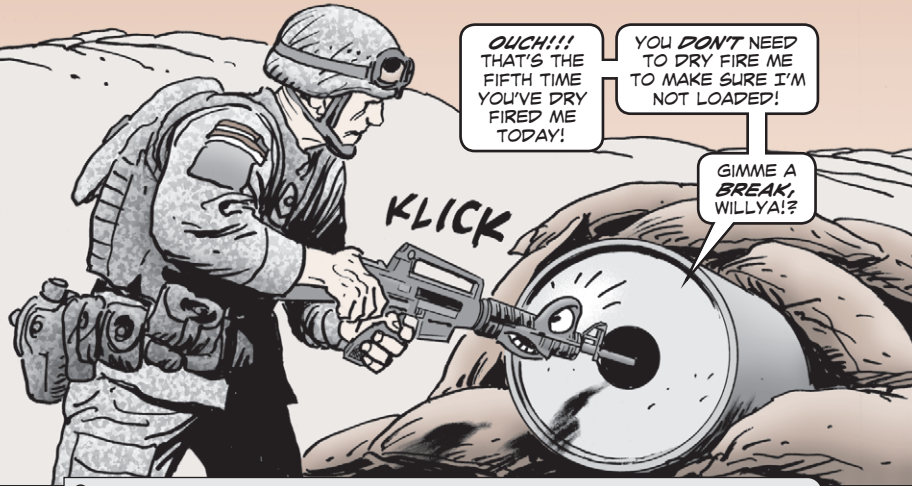
Sometimes weapons can't be repaired locally, but must be sent off to depot—usually for things like a cracked receiver or loose rivets or protective finish missing from more than 1/3 of the receiver.

Unrepairable weapons should be sent off to depot ASAP so they can be fixed and given to units deploying or transforming.

Units should not try to do depot repairs themselves, particularly refinishing weapons. That is a complicated task that Anniston will do at no cost to units.

Weapons needing depot repair should be turned in as "Not Repairable This Station". Units should requisition replacement small arms with the correct RESET project code in card columns 57-59. Use a 26-type requirement code in card columns 55-56 like it says in Table C-23 in AR 725-50.

# IS DRY FIRING *BAD*?



Dear Half-Mast,

Here in Iraq we dry fire our weapons into a clearing barrel at almost every entry control point. That means some days we're dry firing a weapon as much as 12 times. We're wondering if all this dry firing hurts our weapons?

SFC C.F.

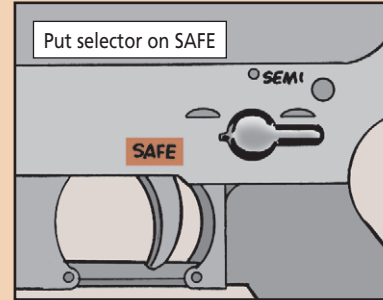
Dear Sergeant C.F.,

You bet repeated dry firing hurts your weapons. It slams the bolt on an empty chamber without the cushion of a cartridge case to help absorb the impact. So repeated dry firing will lead to increased wear and damage to the bolt and chamber. If the damage or wear isn't caught during PMCS and the bolt or barrel isn't replaced, the weapon could fail in combat.

All that dry firing isn't necessary to make sure a weapon isn't loaded. Every weapon's -10 TM gives the procedure for clearing a weapon and making sure it's safe. Commanders can save wear and tear on weapons by having soldiers do the -10 procedure instead of dry firing.



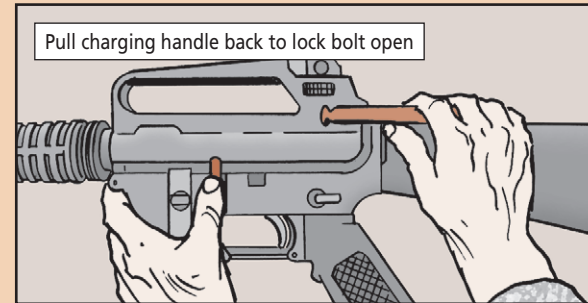
1. Point the weapon in a safe direction and place the selector lever on SAFE.



2. Press the magazine catch button and remove the magazine.

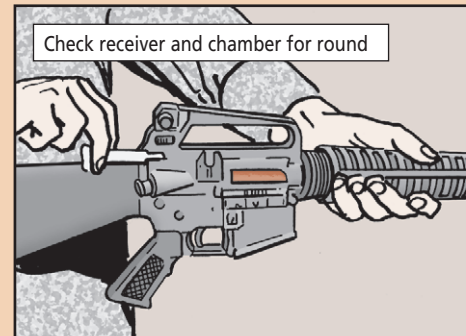


3. Pull the charging handle back to lock the bolt open.

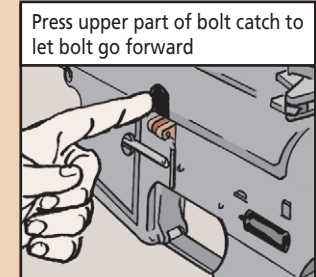


4. Press the bottom of the bolt catch and let the bolt move forward until it engages the bolt catch. Let the charging handle slide back into place. Make sure the selector is still on SAFE.

5. Check the receiver and chamber to make sure they contain no ammo.



6. With the selector still on SAFE, let the bolt go forward by pressing the upper portion of the bolt catch.

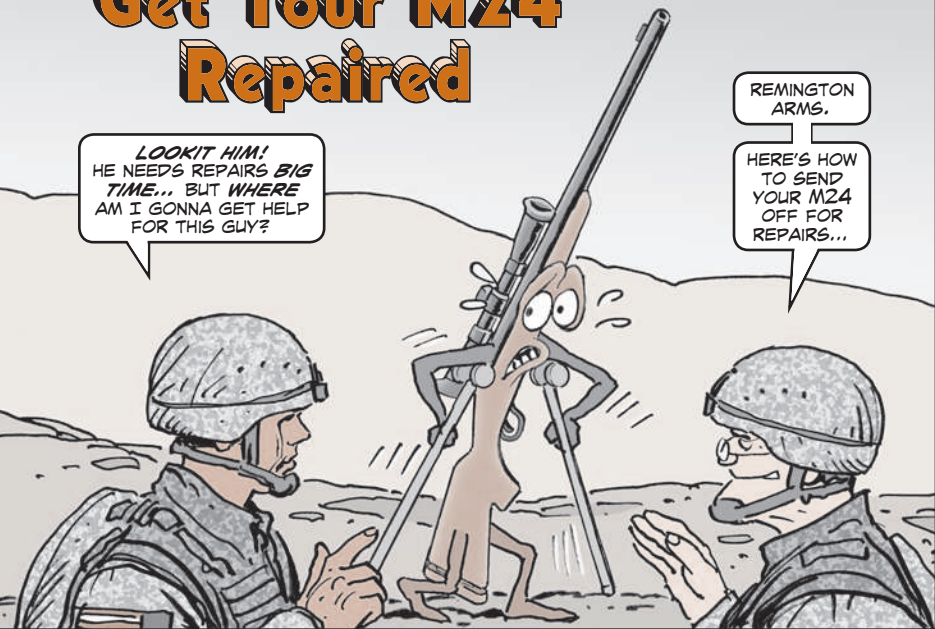


You can do this check in three minutes and save the wear and tear on your rifle or carbine that dry firing causes. And all the machine guns and the M9 pistol have similar quick clearing checks in their -10 TMs.

*Half-Mast*



# Get Your M24 Repaired



**B**ecause the M24 sniper weapon system is such a precise weapon, repairing it is very precise. That means almost anything that needs fixing must be fixed by Remington Arms, the manufacturer.

So how do you get it to Remington?

Begin by asking your installation accountable property officer to prepare a DD Form 1348 using a document identifier code (DIC) FTE (report of excess) and AOE (requisition with exception data), which are covered by Chap 7 of AR 725-50, *Requisition, Receipt, and Issue System*.

The exception data should include the M24's serial number, the FTE document number, and a point of contact, including a commercial or DSN phone number.

TACOM-Rock Island will respond with an FTR (reply to report of excess) that will direct you to ship the M24 to Remington. Remington will return the repaired weapon to you using the document number from the AOE.

If you're OCONUS and don't have access to US registered mail, TACOM-RI will direct you to send the M24 to Anniston Army Depot, which will ship it to Remington.

The FTE and AOE can be phoned into TACOM-RI at (309) 782-2774/DSN 793-2774 or faxed to (309) 782-2640/DSN 793-2640 or emailed to:

[bynumj@ria.army.mil](mailto:bynumj@ria.army.mil)

For more info, contact George Riley, (309) 782-3843/DSN 793-3843, or Doug Carlstrom, (309) 782-2361/DSN 793-2361, or your local TACOM-RI logistics assistance representative.

## A Better Way to Stop Runaways



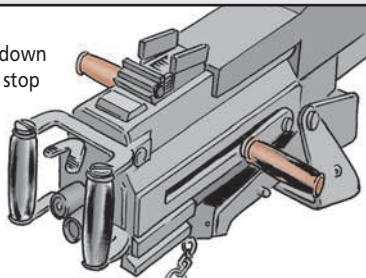
The TMs for the MK19 now say if you have runaway firing to drop down one charging handle to stop the gun.

Well, that's being changed. The trouble with dropping one handle is that it causes the charger housing to bow when it's done again and again. Then dropping one handle will not stop a runaway.

Solution? Put both charging handles in the down position. That distributes the pressure evenly on both charging handle slides and keeps the charger housing from bowing.

TM 9-1010-230-10 and -23&P will be changed to include the new runaway procedure.

Drop both handles in down position to stop runaways

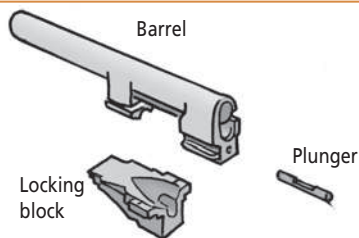


M9  
Pistol...

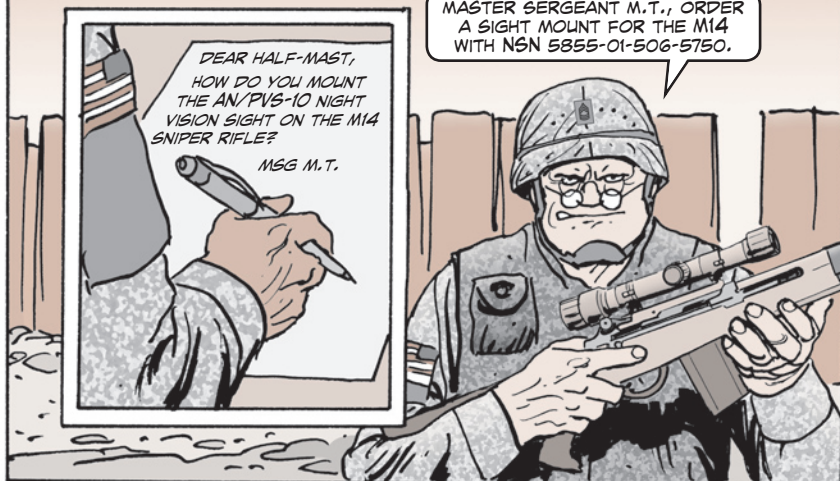
## NEW LOCKING BLOCK NEEDS NEW PLUNGER

A new locking block for the M9 pistol was put into the supply system in Oct 05. The new locking block has rounded corners instead of the squared corners on the old block it replaces. The new block has the same NSN as the old block, NSN 1005-01-204-4340.

When you get the new locking block, you will need a new locking block plunger, NSN 1005-01-204-4339. The old plunger won't work with the new locking block. The new plunger works with both old and new locking blocks, however.



# How Do You Mount Sight?



M68 Reflex Sight...

## REPLACEMENT KNOBS?

Dear Half-Mast,

We're getting a number of M68 reflex sights in our repair shop that are missing power switch knobs and we can't find replacement knobs. It's a shame to lose a sight because of a missing knob. Can we order replacements?

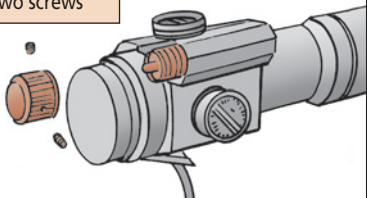
N.L.

Dear Mr. N.L.,

Sure. Order the knob with NSN 5355-01-515-4613. You'll also need two socket head screws, NSN 5305-01-515-8266. These parts can be found in WP 0017 00-5 in TM 9-1240-413-12&P, the TM that covers the M68.

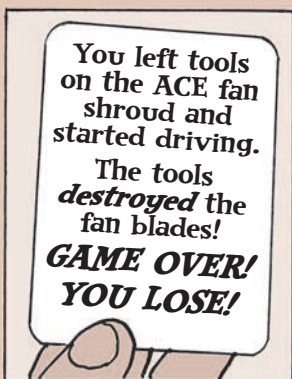
*Half-Mast*

Power switch knob  
needs two screws





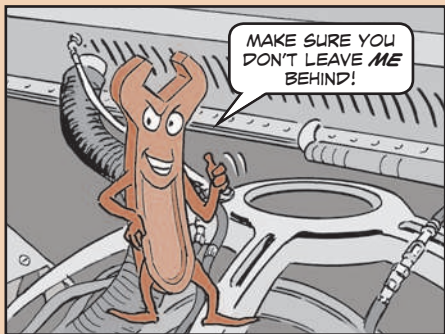
# What's Left Behind?

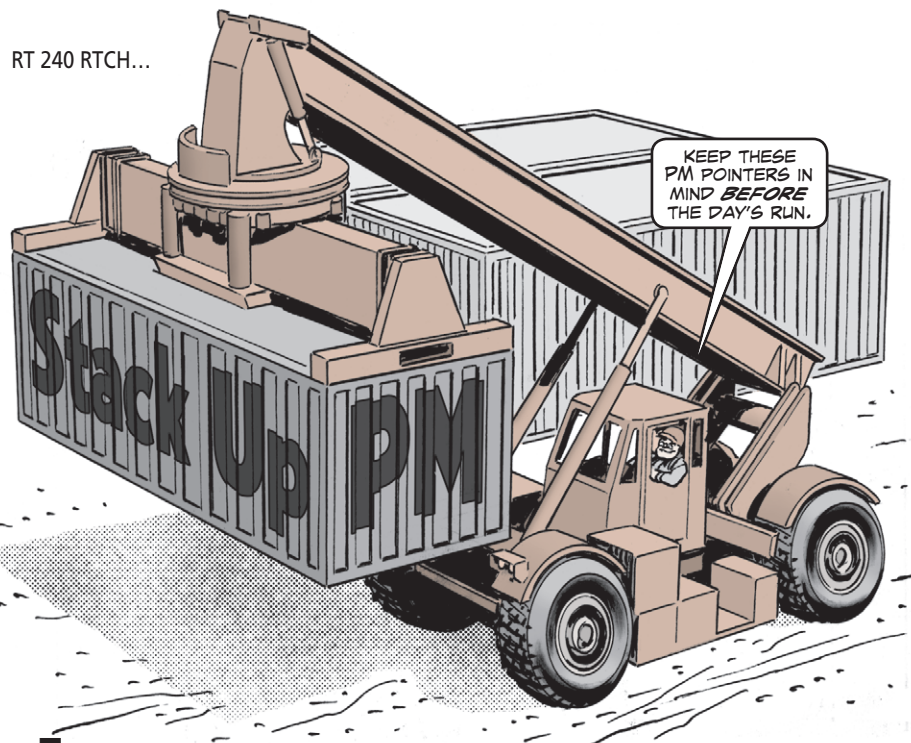


Using the fan shroud as a shelf isn't a bad idea when you're working in the engine compartment, but it will be if you leave those items sitting there when you close the hoods.

Anything left behind bounces off the shelf—then ends up hitting the fan blades after the engine starts and the vehicle moves. Broken fan blades cause the engine and transmission to overheat.

Before you close the engine compartment, take a look to make sure nothing gets left behind. It can make the difference between winning and losing.





The rough terrain container handler (RTCH) is a workhorse when it comes to lifting and stacking 20- and 40-ft ISO containers.

To keep it on the job, though, you need to read and heed the word in TM 10-3930-675-10 and keep these PM pointers in mind.

### Water in Fuel

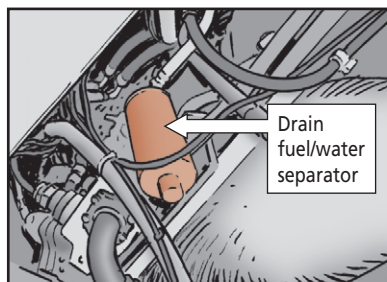
Water in your RTCH's fuel will leave its engine running rough or not at all.

Water gets in the fuel when warm days and cool nights cause condensation to form in the vehicle's fuel tank. You get rid of water by draining the fuel/water separator each week like it says in the TM.

Open the separator—located behind the roadside engine access door—by turning its drain cock counterclockwise. Store drained fuel in an approved hazardous waste container. **Never** dump it down a drain or let it run on the ground.

If the fuel is clear, you're OK. If the fuel doesn't run clear after you've drained half a pint or so, close the valve and report it to your mechanic.

Also make sure your mechanic replaces the fuel filter at semiannual service time.



### Air Filter Brush-off

The RTCH's air cleaning system is its defense against dirty air. It's up to you to make sure the system works.

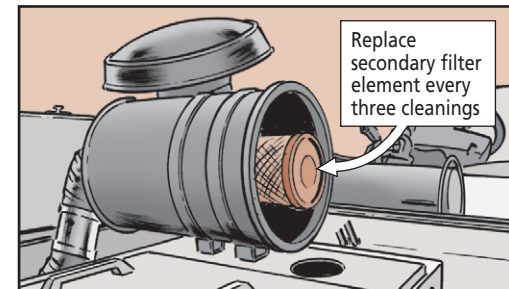
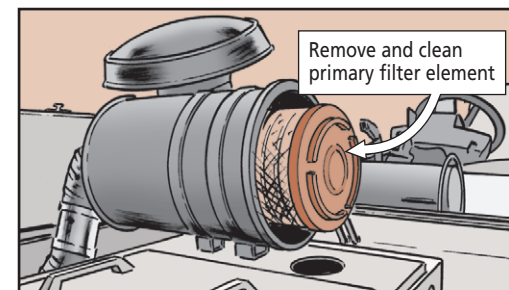
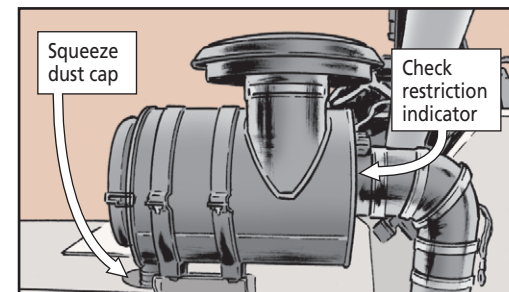
Operators, your first task is to squeeze dust out of the dust cap on the bottom of the air canister weekly, or daily if you're working in a dusty or sandy area.

Squeezing gets rid of dirt or sand in the canister. Sand that's left in the canister will end up clogging filters.

Keep an eye on the air cleaner's restriction indicator that's next to the canister. If the indicator moves from green to red, call in your mechanic for service.

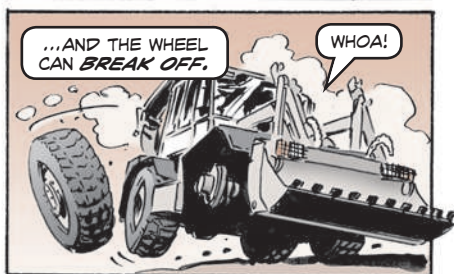
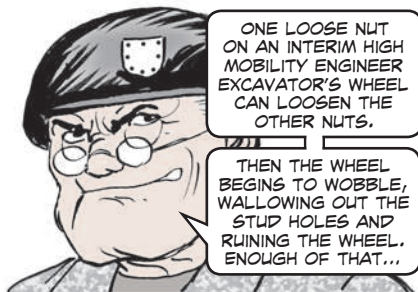
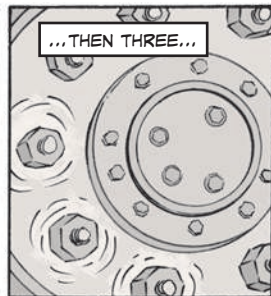
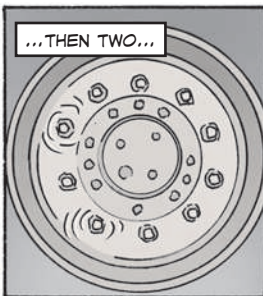
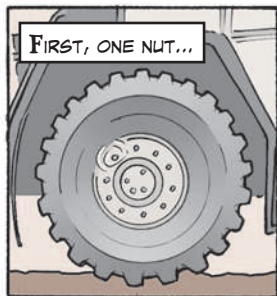
Mechanics, give the filters a good cleaning when the operator notices a loss of engine power and black smoke from the exhaust.

Clean the primary filter element with 30 psi compressed air, blowing from inside out. Replace the primary filter when it's damaged or torn, or when the indicator stays in the red after a cleaning. Replace the secondary filter after cleaning the primary three times.





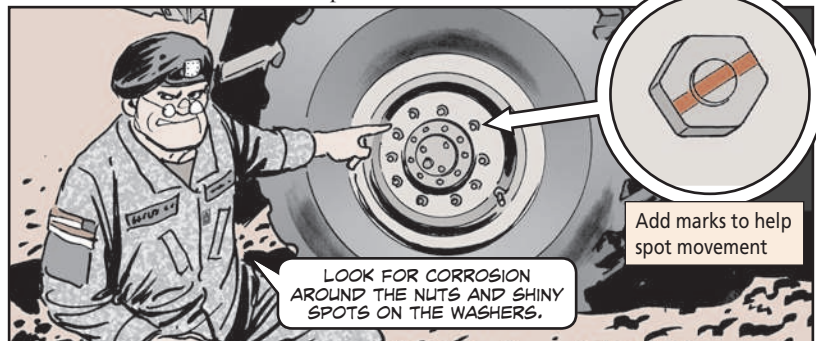
# Mark a Line



So eyeball the nuts for tightness every week. Look for two things: shiny spots on the nut's washer and corrosion around the nuts. Have your mechanic tighten any loose nuts to 475-525 lb-ft.

Once they're torqued, make your mark so you can quickly check the nuts for movement. Use a white marker pen or torque seal, NSN 8030-00-408-1137, and mark a line across the bolt end and nut.

A mark that later doesn't line up means the nut has moved.





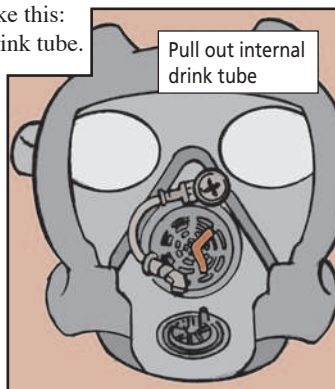
# CHECK FOR DRINK SYSTEM BLOCKAGE



Some M45 masks have been found to have a blockage in their outlet valve housings that prevents a soldier from getting water through the drink tube.

The blockage doesn't hurt the mask's ability to protect, but a soldier won't last long without water in extreme heat. So immediately, all NBC NCOs should have their unit check their M45 masks for blockage like this:

- Remove the outlet valve cover and external drink tube.
- Remove the internal drink tube and blow into the tube. If air goes through the tube, reinstall it on the mask. If air won't go through the tube, you need a new internal drink tube, NSN 4240-01-441-0557. Put it on the mask and continue the test.
- Check the outlet valve housing drink system by blowing through the internal drink tube. Use your finger to see if air is passing through. If air is, reinstall the external drink tube and the outlet valve cover. Clean and sanitize the mask and continue to use it.



If air isn't passing through, the drinking system is blocked. For repair or replacement of the mask, contact TACOM's Doug Vanatta at DSN 793-3053/(309) 782-3053 or email: [vanattad@ria.army.mil](mailto:vanattad@ria.army.mil)

After you've inspected all your masks, report the inspection to your MACOM commander and carbon copy Vanatta at the address above. Include your unit's name, serial numbers of M45s that passed the inspection, status of repairs to M45s that didn't pass, and a POC with phone number and email address.

If you need help with the inspection, contact your local TACOM logistics assistance representative or state surface maintenance manager.

Whenever you do the PATS test on the M45, be sure to have the soldier first clear the drink system like it says on WP 0007 00-5 of the PATS's TM 3-4240-349-12&P. That will spot any blockages in the drink system.

For more info, see TACOM ground precautionary message 06-004.

# WHAT ARE MASK MWOS?



Dear Editor,

We teach at the Ft Sill Chemical School and encounter many NBC NCOs who aren't aware of the modification work orders that have come out for the M40/M42 and M45 protective masks. We think it would be an excellent idea for PS to list the MWOs so NBC NCOs can check to see if their masks need modifying.

Also, the zip ties used with one of the MWOs are starting to wear out and NBC NCOs are local purchasing new ones. We don't think they should do that.

Todd Hall  
James Hardison  
Richard Hammonds  
Ft Sill, OK

I TALKED WITH THE EDITOR AND HE THOUGHT LISTING THE MWOS IS AN EXCELLENT IDEA! HERE THEY ARE...

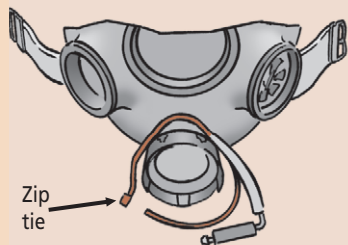


## MWO 3-4240-346-20-1

This MWO applied a retaining clamp (zip tie) to the facepiece to prevent the silicone rubber from separating from the outlet valve housing. The NBC NCO can do the MWO with a special tensioning tool that comes with the MWO kit. The kit also contains a set of PMCS cards that should be added to the carrier. All M40, M40A1, and M42A2 masks should have had this modification done by now.

If zip ties wear out, NBC NCOs should not local purchase new ones. For new ties, contact TACOM's Jim Morphew at DSN 793-6415/(309) 782-6415 or email:

[morphewj2@ria.army.mil](mailto:morphewj2@ria.army.mil)

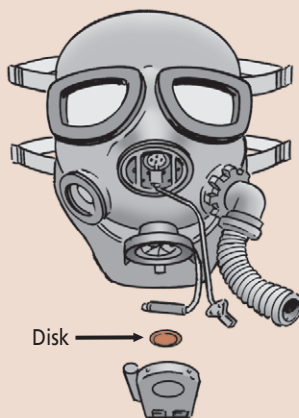


Zip tie

## M40/M40A1/M42A2

### MWO 3-4240-346-20-2

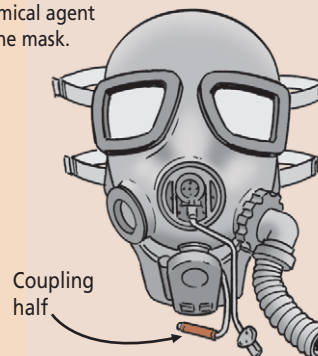
This MWO replaced the outlet valve disk with an improved disk that minimizes the chance of the disk collapsing into the outlet valve housing during extreme negative pressure checks. The NBC NCO does the MWO. All M40, M40A1, and M42A2 masks should have the modification done by 31 Dec 06. The new disk is olive green. If your masks' outlet valve disks aren't green, the masks haven't been modified.



Disk

## MWO 3-4240-346-20-3

This MWO replaces the the quick disconnect coupling half in all M40/M42-series masks. Some of the older masks have adhesive applied to the coupling half. In that case, you must order a new facepiece. The NBC NCO does the modification. You can tell if your masks have the new quick disconnect coupling half by checking for three knurling stripes (or raised ridges) on the coupling. The old coupling had two stripes. This MWO should be done immediately because some of the old coupling halves may leak and let chemical agent in the mask.

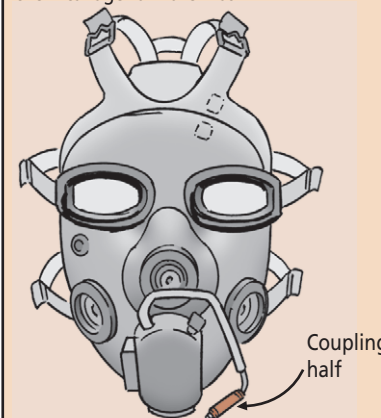


Coupling half

## M45

### MWO 3-4240-348-20-1

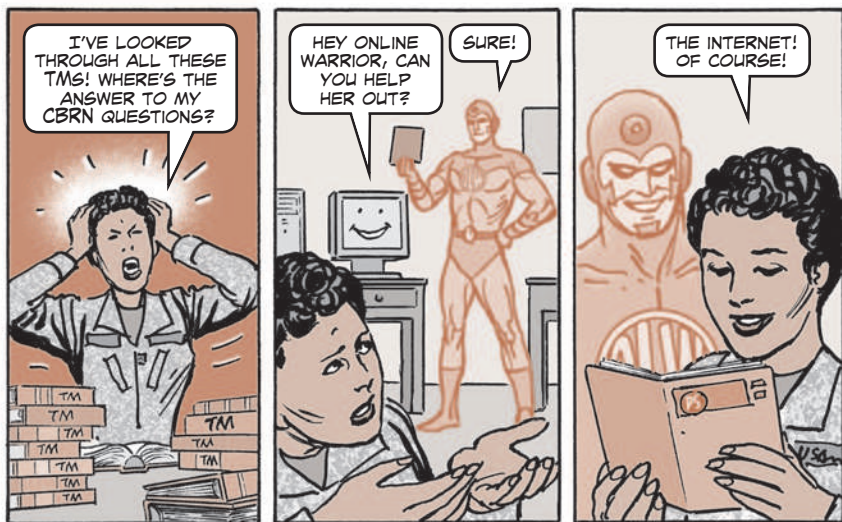
This MWO replaces the quick disconnect coupling half on the M45 land warrior and M45 masks. It's done by the NBC NCO. The new coupling half has three knurling stripes. The old coupling half had two. This MWO should be done immediately because some of the old coupling halves may leak and let chemical agent in the mask.



Coupling half

If you need copies of any of these MWOs, contact your local MWO officer or TACOM's Jim Morphew at the numbers and email on Page 24.

# CBRN on the Internet



**S**ometimes you search and search through your technical manuals and ask your fellow NBC NCOs for help but still can't find the answer to your CBRN question. That answer may be as close as your computer.

The secure Army Electronic Product Support (AEPS) website takes you directly to the TACOM-SBC website for chemical defensive equipment, which includes masks, decon equipment, and smoke generators. Access AEPS at <http://aeps.ria.army.mil>

When you get to the AEPS website, enter the restricted access area and look for AMC COMMANDS AND ACTIVITIES and click on TACOM-SBC.

AEPS requires a password, but your Army Knowledge Online (AKO) password will work with AEPS, too.

AT THE TACOM-SBC SITE YOU CAN FIND INFO ON...

- Chemical Go-to-War Program
- shelf life information for TACOM-SBC managed items
- CBRN hotline
- old PS articles on CBRN equipment
- advisory messages
- chemical newsletters
- demilitarization instructions
- CBRN equipment descriptions
- links and POCs for CBRN items managed by other commands, such as radiac equipment and chemical clothing

If you have questions about the TACOM-SBC website, contact Mary Wischoff at DSN 793-1936/(309) 782-1936 or email [wischoffm@ria.army.mil](mailto:wischoffm@ria.army.mil)



# A REVOLUTIONARY IDEA

IT'S 1775 IN BOSTON.  
A WELL-TO-DO MERCHANT  
HOLDS THE REINS TO HIS  
HORSE AS HE TALKS TO  
A BLACKSMITH...

JOE  
KUBERT

BLACKSMITH

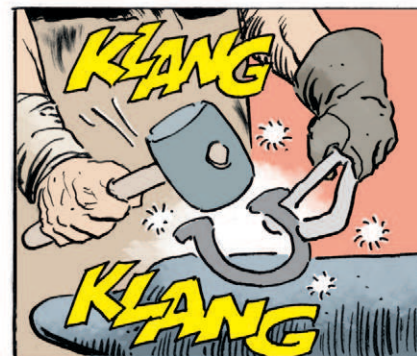
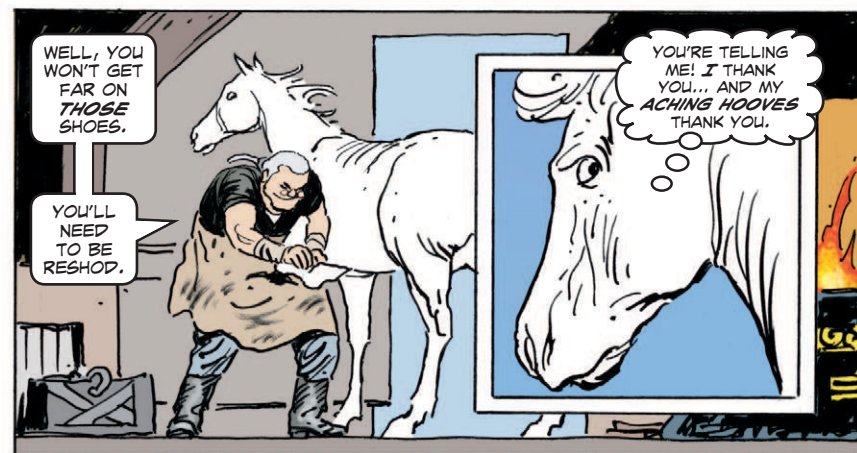
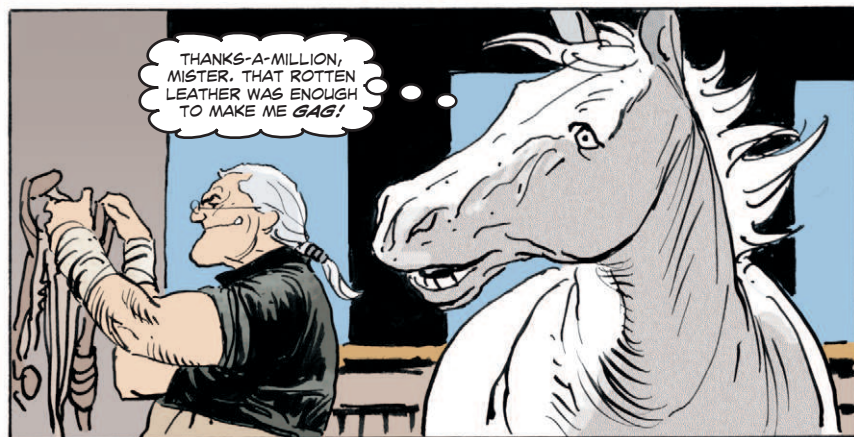
PROPRIETOR:  
WILBUR SMITH

THE  
HORSE  
**MUST** BE  
READY BY  
NIGHT-  
FALL.

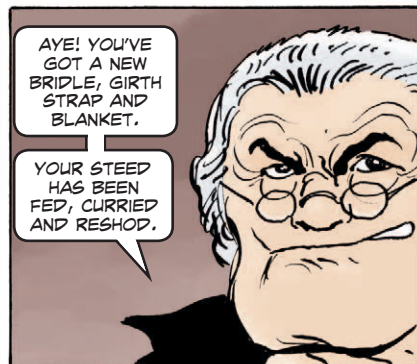
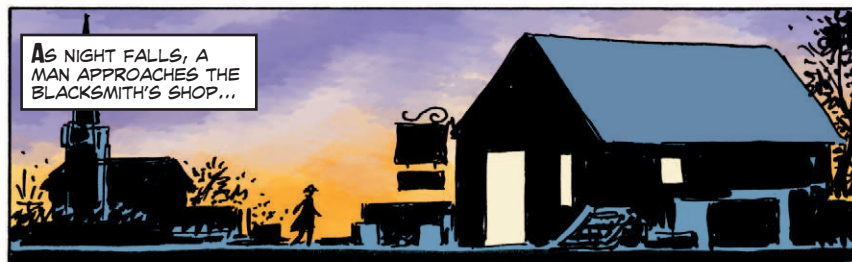
AYE, MR.  
REVERE.  
I'LL  
LOOK HIM  
OVER AND  
GET HIM  
READY.

HMM... THAT SILVERSMITH  
IS GOING TO DO SOME  
HARD RIDING. THIS  
**STIRRUP** NEEDS WORK!

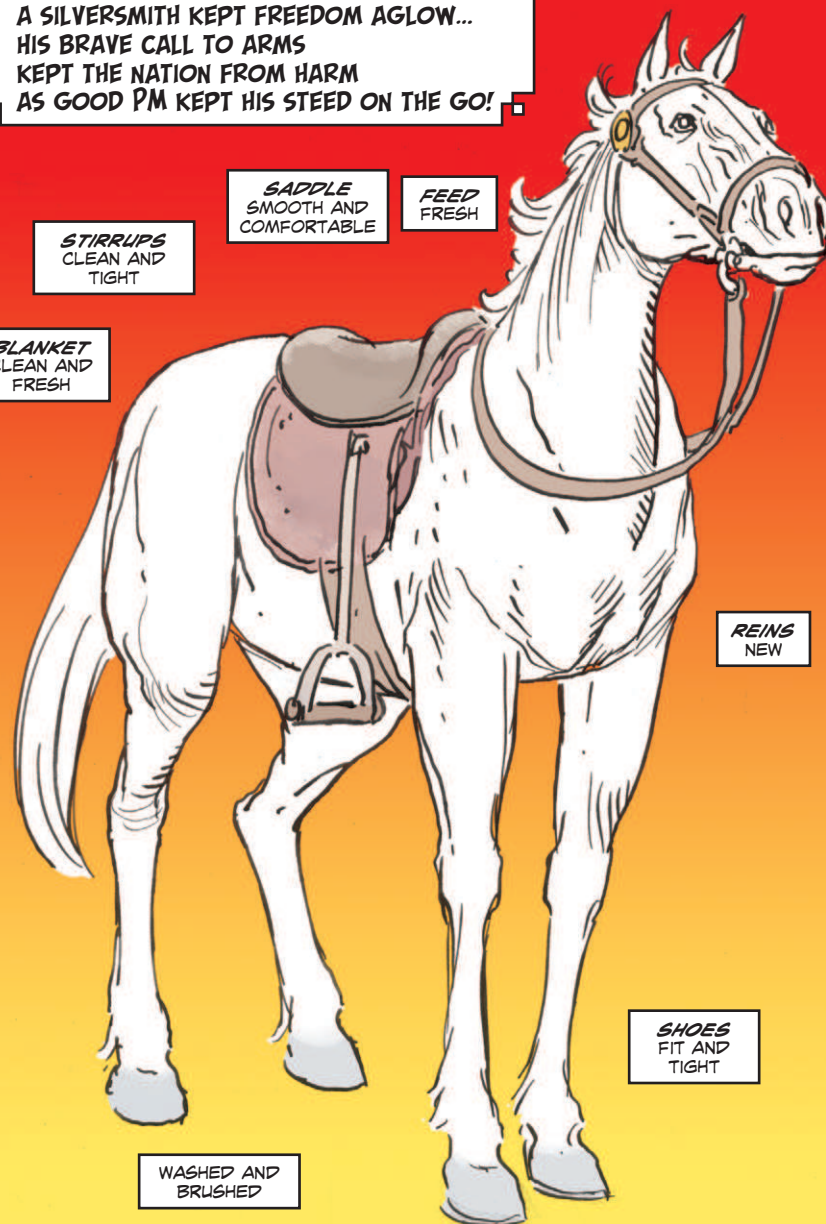




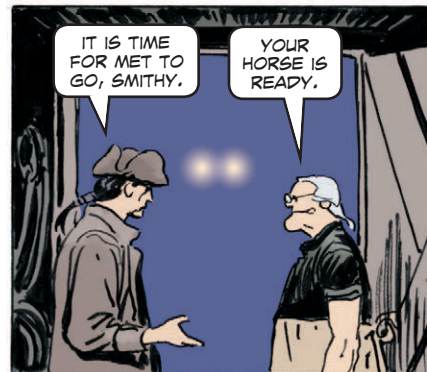
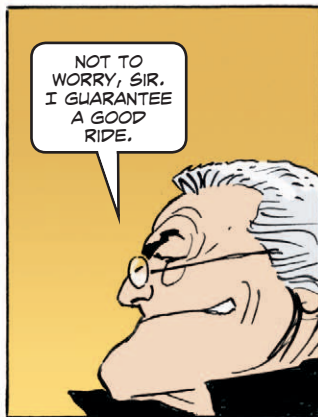




ON A DARK NIGHT SO LONG, LONG AGO, A SILVERSMITH KEPT FREEDOM AGLOW... HIS BRAVE CALL TO ARMS KEPT THE NATION FROM HARM AS GOOD PM KEPT HIS STEED ON THE GO!









*TO ARMS!  
TO ARMS!*

HOPE OUR  
MINUTEMEN  
GAVE HOURS  
TO PM!



ANVIS...

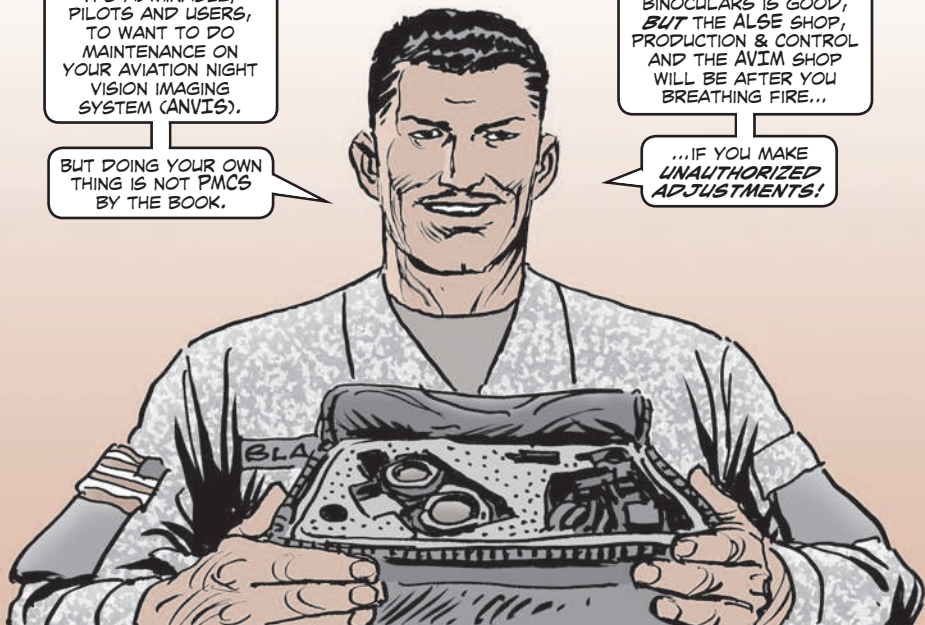
# STOP DOIN' YOUR OWN THING

IT'S ADMIRABLE,  
PILOTS AND USERS,  
TO WANT TO DO  
MAINTENANCE ON  
YOUR AVIATION NIGHT  
VISION IMAGING  
SYSTEM (ANVIS).

PMCS ON YOUR ANVIS  
BINOCULARS IS GOOD,  
*BUT* THE ALSE SHOP,  
PRODUCTION & CONTROL  
AND THE AVIM SHOP  
WILL BE AFTER YOU  
BREATHING FIRE...

BUT DOING YOUR OWN  
THING IS NOT PMCS  
BY THE BOOK.

...IF YOU MAKE  
*UNAUTHORIZED*  
ADJUSTMENTS!



MADE  
ADJUST-  
MENTS,  
DIDN'T  
YOU?

YES,  
I  
DID!

HEY,  
CHARLIE!  
WE GOT US  
ANOTHER  
ONE!

GET  
'IM!

I'VE  
MADE A  
*HUGE*  
MISTAKE!





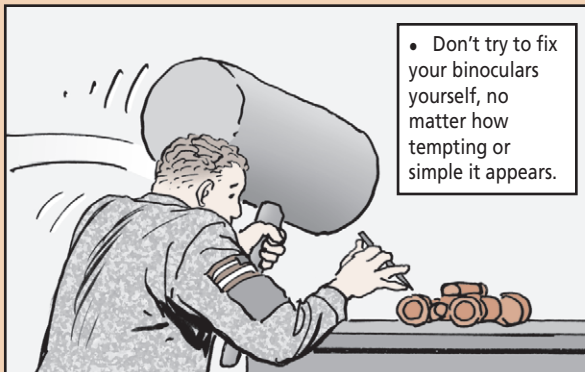
THERE ARE SOME THINGS YOU SHOULD **NEVER** DO WITH YOUR ANVIS BINOCULARS.



## Things **Not** to Do



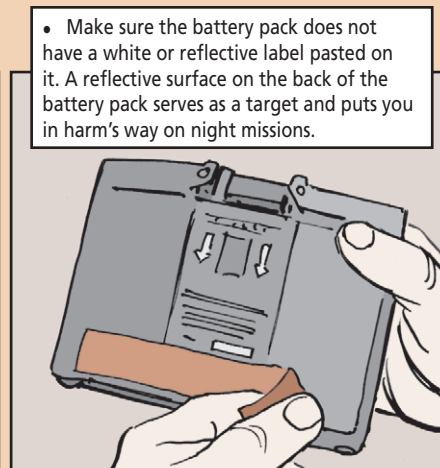
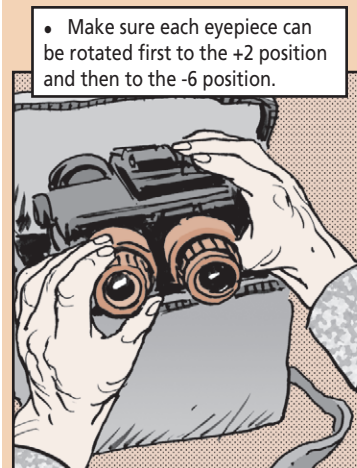
- Don't pack the binoculars any way you want—it only causes problems. Always adjust the eye span knob(s) midway before inserting the objective lenses first into the foam inserts of the carrying case. Refer to the "Preparation for Movement" paragraph in the operator's manual for complete details. For the (V)1 and (V)1A binoculars, follow TM 11-5855-263-10. For the (V)3 binocular, follow TM 11-5855-313-10.
- Don't mess with the tamper mark on the binoculars once it's added after the first six-month service. That's off limits to you.
- Don't swap binocular parts because once the binocular assembly has been opened, it must be purged before it can be used.
- Don't accept the ANVIS if you can't see through the binoculars properly. AVIM will have to fix the problem. Don't do your own thing.



## Things to Do



- Perform the operator's checks listed in Table 2-2 of the operator's manual.
- Check for deep cracks in the binoculars. Surface cracks that do not affect performance are acceptable.
- Make sure each objective lens turns freely through its full range of travel.
- Make sure you don't use the objective lens assembly, PN A3279595, NSN 5855-01-476-1481, on aircraft equipped with the ANVIS display symbology system (ADSS), such as the OH-58D Kiowa Warrior.
- Make sure everything in the ANVIS carrying case is inspected before and after each mission in accordance with Table 2-2 of the operator's manual.
- When the six-month service is due, make sure you turn in a completed green tag, DA Form 1577-2, along with the carrying case that contains all of the components of end item as described in Appendix B of the operator's manual.



AH-64D...

# COVER THOSE HOLES!

SGT BLADE, I'M ALL FINISHED REMOVING THE CAMERA.

DID YOU USE THE HOLE HARDWARE?

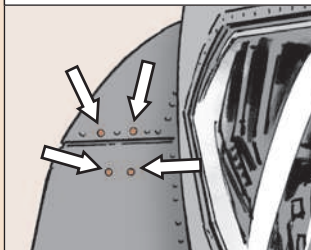
**M**echanics, when you remove the universal tracking device (UTD) camera, NSN 6210-01-348-8252, from the AH-64D left extended forward avionics bay (EFAB) and put it back into the vibration analysis kit, NSN 6625-01-282-3746, **don't** leave the four holes in the left EFAB cowlung uncovered.

Before you park your bird outside, make sure the holes are covered after rotor track and balance. Use hole hardware, NSN 5306-01-328-9219, and not the UTD camera attachment hardware.

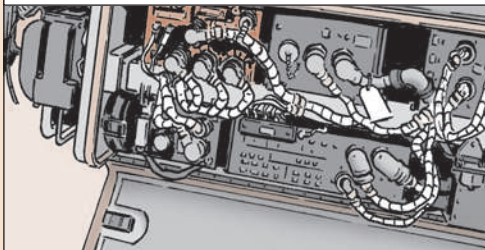
If the four holes are not covered and the bird sits outside in rainy weather, that's not good. Rain leaks through the holes where the UTD camera sits and into the open vent on top of the target acquisition designation sight (TADS) electronic unit, NSN 1680-01-452-9900.

That water can short out the TADS and make your bird NMC.

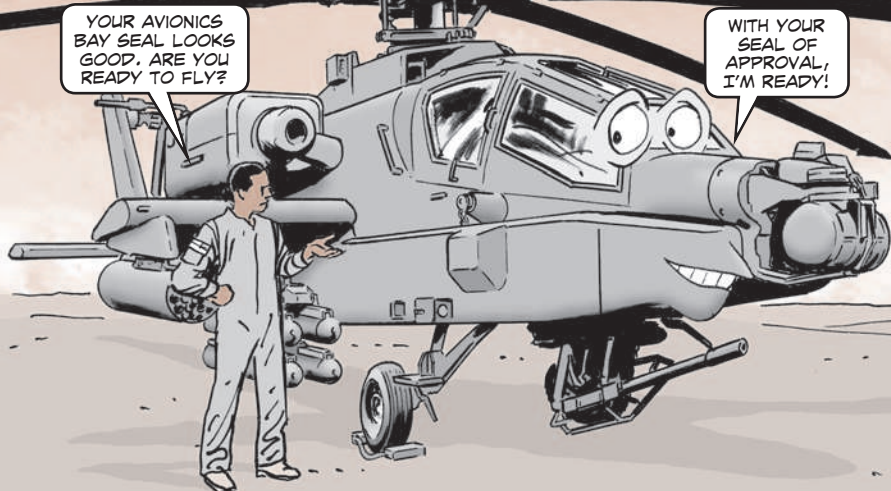
When camera is removed, put correct hardware in holes



Make sure hardware does not make contact with TADS electronic unit



# SEAL OUT WATER

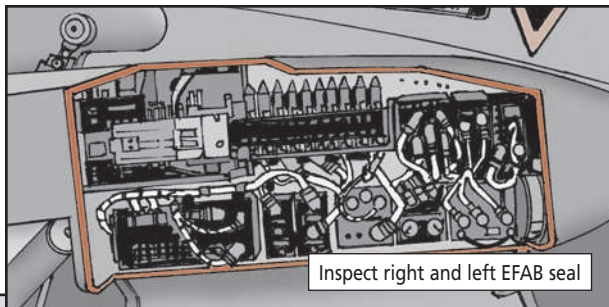


**M**echanics, during your next AH-64A/D 25-hour/14-day inspection of the right and left extended forward avionics bay (EFAB), check the seal gaskets for wear.

Over time the gaskets harden and lose their seal, leaving components vulnerable to water seeping into the bay in flight or when the bird's outside on the flight line.

Water can cause havoc and knock out many of the electronic components in the left or right EFAB.

If you've got a bad seal gasket, replace it like it says in TM 1-1520-Longbow Apache IETM RPSTL and TM 1-1520-238-23P for the A model.



So pre-flight your bird to make sure you have good gaskets, and you'll have a good flight.



# PM Smarts and Needed Parts

Okay, we know on the Top Ten list of glamorous PM jobs posted on your commo shop wall, 26-pair cable maintenance doesn't even rate an honorable mention. But somebody has to do it! And if you're that somebody, here are a few words of wisdom to get the job done right and quickly so you can move on to do PM on those sexy SINGARS and satellites sets.

## Cable Care

Heavy vehicles running over cables break the insulation and mash internal wiring. If the cable insulation is cut or cracked, use electrical tape, NSN 5970-00-685-9059, to patch it.

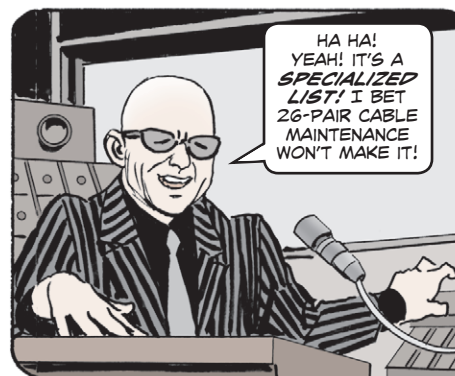
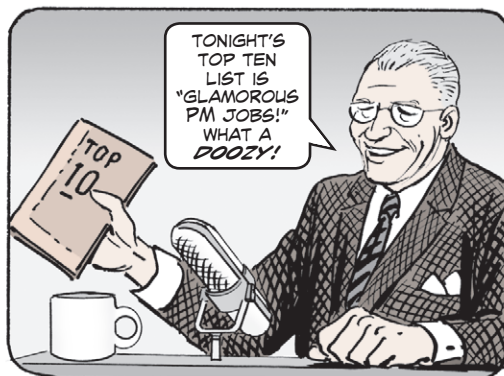
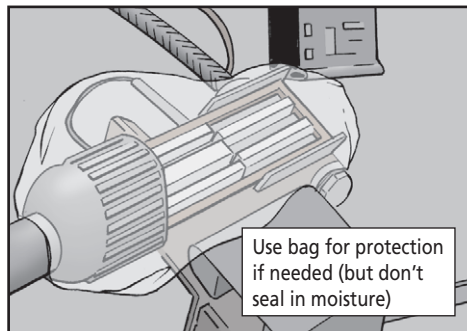
The rubber boot that helps hold the cable to the hock may need a wrap or two of tape, too. If it's badly cracked or torn, NSN 5975-00-874-3541 will get you a new rubber boot.

## Connector Care

A connector on a reeled-up cable should never be left hanging loose. It will bang around or get stepped on. Tie the connector to the inside of the reel rim with field wire or string.

Sometimes, you may need to bag a connector to give it extra protection against the elements. Be careful, though, if using plastic bags, not to seal in moisture or to allow condensation to form inside the bag.

An alternative to bagging that also offers some banging protection is wrapping the connector with heavy paper barrier material.



## Contact Care

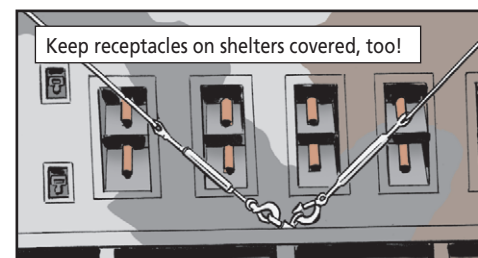
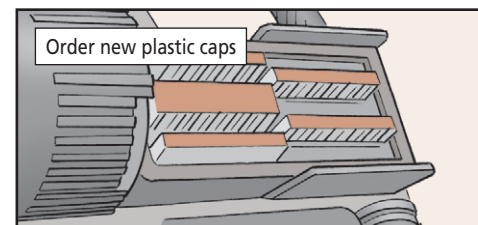
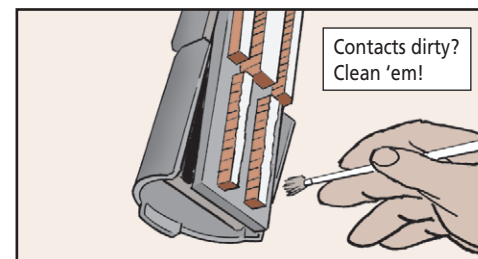
Take a good look at the contacts. If they're dirty, clean them. If they're bent, straighten them. If they're missing, chipped or broken, replace them. Order a new electrical contact assembly with NSN 5935-01-142-9742.

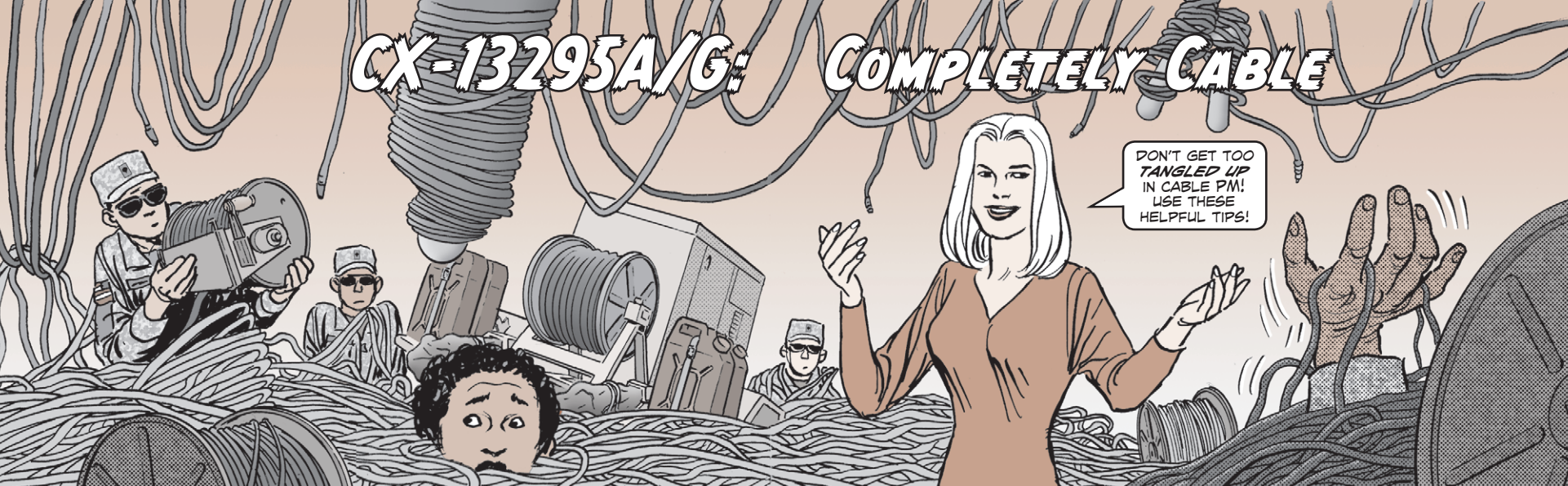
If the plastic caps that protect the contacts are missing or broken, replace them, too. Order a replacement kit for the caps with NSN 5999-01-073-5507. The kit will do a complete coverup job on 10 connectors.

To keep the contacts in good shape and to keep dirt and moisture out, you must use the receptacle covers when the cable is not in use. You can replace lost or damaged covers with NSN 5935-00-883-4265.

Make sure the new cover stays with the cable by connecting it with wire rope, NSN 1640-01-308-5097, and a swaging sleeve, NSN 4030-00-431-5536.

While you're inspecting or replacing a cover, check the hock gasket, too. It needs to be cut free and intact to do a good sealing job. If it's not, NSN 5330-01-130-7340 brings you a new hock gasket.





Fiber optic cable assembly, CX-13295A/G, is a high-use, high-volume item in the Army communications arsenal. It must be maintained by the user to ensure peak performance at the most demanding times.

Here are some things you need to know about this cable assembly:

### You've Gotta Have Parts

In the maintenance business, stock numbers are gold.

Here are some important stock numbers for the CX-13295 cable, its parts and associated items:

Item	NSN
CX-13295A/G (1 meter)	6020-01-315-9906
CX-13295A/G (300 meters)	6020-01-220-5435
CX-13295A/G (1000 meters)	6020-01-208-1147
Marline	4020-00-240-2185
MK-2495/G cable repair kit	6080-01-208-1817
RC-453B/G cable reel	8130-01-147-4858
RL-207 reeling machine	3895-00-892-4583
RL-31 reel unit	3895-00-252-6896
TS-4117/G test set	6625-01-189-8155

Here are some stock numbers just for Direct Support:

Item	NSN
Dust cap	5340-01-362-6138
Lanyard assembly	4010-01-378-3871
Machine screw	5305-00-770-2533
Thread locking compound	8030-01-014-5869
Crimping tool	5120-00-278-2423
TK-105/G tool kit	5180-01-460-9328
RC-435/G cable reel	8130-00-656-1090
TS-4335/G test set	6625-01-316-2753
TS-4336/G test set	6625-01-316-2752

### Cleaning with Meaning

Next to abuse, dirt is the greatest enemy of optical cable. But it's an enemy that can be defeated with just a little cleaning effort on your part.



Item	NSN
Cleaning cloth	7920-00-634-2408
Lint-free cloth	8305-00-267-3015
Isopropyl alcohol	6505-00-205-6513
Wood toothpicks	7350-00-838-3919
Foam swabs	7045-01-482-4037
Thread locking compound	8030-01-014-5869

Use the cleaning cloth to clean the outer surfaces of the cable, the connectors and the dust cover. Dampen the cleaning cloth with water for dirt and use the lint-free cloth dampened with isopropyl alcohol for grease, mildew or mold. Don't use any other solvents!

Remove stubborn dirt or mud by rinsing the cable in a container of clean water, but keep the connectors dry.

When the cable is clean, wipe it dry with the cleaning cloth.

Use the lint-free cloth dampened with alcohol to clean the surfaces of plugs. Use the foam-tipped applicator with alcohol to gently clean around hard-to-reach areas.

Additional cleaning and preservation using compressed air, grease and locking compound can be done at direct support.



## Take Safety to Heart

“It ain’t heavy” is not a phrase that applies to cables and their reels. CX-13295/G cable on an RC-435/U reel is a two-person lift. It weighs around 50 pounds. CX-13295/G cable on an RC-453B/G reel is a four-person lift. It’s more than 100 pounds. Try to lift either by yourself and it’s hello sick call.

Fiber optical cables emit a few things that can damage your eyes, such as high- and low-level infrared signals and optical radiation. When you’re disconnecting optical connectors, don’t look directly into the optic cables and avoid exposure to the optic beam. When working with this cable, it’s best to wear industrial-UV spectacles. There are more than 100 industrial spectacles in the defense inventory under the 4240 supply class. Find the ones with UV protection that work best for you.



## The Art of Connecting

To protect yourself and the cable and to ensure the best possible communications, connect fiber optic cable assemblies correctly. Follow these steps:

1. Hold the fiber optic connector of one cable section in one hand and grasp the dust cover sleeve nut with the other hand. Turn the dust cover sleeve nut counterclockwise to unscrew and release the dust cover. Set this connector aside and repeat the action with the other cable section.
2. Now back the sleeve nut on one of the connectors all the way to the rear by turning it clockwise. Only one sleeve nut is needed to couple the two connectors.
3. Hold the two fiber optic connectors so that the faces are aligned. Gently—force is not needed—push the two connectors together and screw the sleeve nut of the one connector onto the other connector until it is tight.
4. To lower loss of light between the two connectors, the two cable assemblies must be accurately aligned with the minimum possible gap between the connectors. The unused sleeve nut may be screwed forward as a jam nut to lock the two connectors in place.
5. Now, connect the two dust covers by backing one dust cover sleeve nut all the way to the rear flange on the dust cover, aligning the two faces and turning the sleeve nut to tighten them together.
6. Don’t forget to maintain slack in the cable to relieve pressure from the connection. Use the marline to make the slack.

When it’s time to disconnect, pull the connectors straight apart. Don’t twist ‘em, rock ‘em, or jiggle them or you’ll damage a connector insert.

## PM, of Course

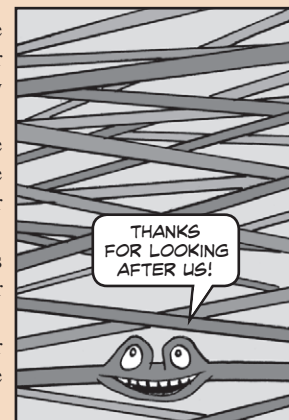
Putting a sharp, but protected eye, on your cable is the preventive maintenance you can do at the unit level.

Look at the connectors for excessive oil, grease or dirt. Check them for cracks, corrosion or other damage. See if there is any damage to the main body or the sleeve nut.

Other areas to check are the alignment bosses, the sleeve retainer, and the bi-conic plug. Look for loose or missing screws or locking sleeves. Check the wear and tear on gaskets and bellows seals.

Make sure you have all the dust covers and lanyards in place and that none are damaged. The bend limiter needs to be in good shape and well seated.

Last, but not least, give the entire cable outer jacket a once over and try to spot potential trouble areas before they bring down communications.



## You Can’t Beat a Good Book

TECHNICAL MANUALS FOR ITEMS LIKE CABLE—WHICH SEEM TO BE EASY TO USE AND EASY TO MAINTAIN—ARE OFTEN **NOT READ**. AND SOMETIMES ARE NOT AROUND TO BE READ.

HERE ARE THE MANUALS NEEDED IN YOUR UNIT AND DIRECT SUPPORT SHOP FOR THE HANDLING AND MAINTENANCE OF THE CX-13295A/G CABLE ASSEMBLY...



**TM 11-6020-200-10**, *Operator's Manual, Fiber Optic Cable Assembly, CX-13295A/G*

**TM 11-6020-200-23&P**, *Direct Support Maintenance Manual (Including Repair Parts and Special Tools List), Fiber Optic Cable Assembly, CX-13295A/G*

**TM 11-5985-202-13**, *Operator, Organization, and Direct Support Maintenance Manual: Reel Units RL-31*

**TM 11-3895-209-14**, *Operator's, Organizational, Direct Support, and General Support Maintenance Manual: Reeling Machines, Cable, Engine Driven RL-207/G*

**TM 11-6625-3227-13&P**, *Operator's, Unit, and Direct Support Maintenance Manual*

*(Including Repair Parts and Special Tools List): Optical Communications Test Set TS-4117/G*

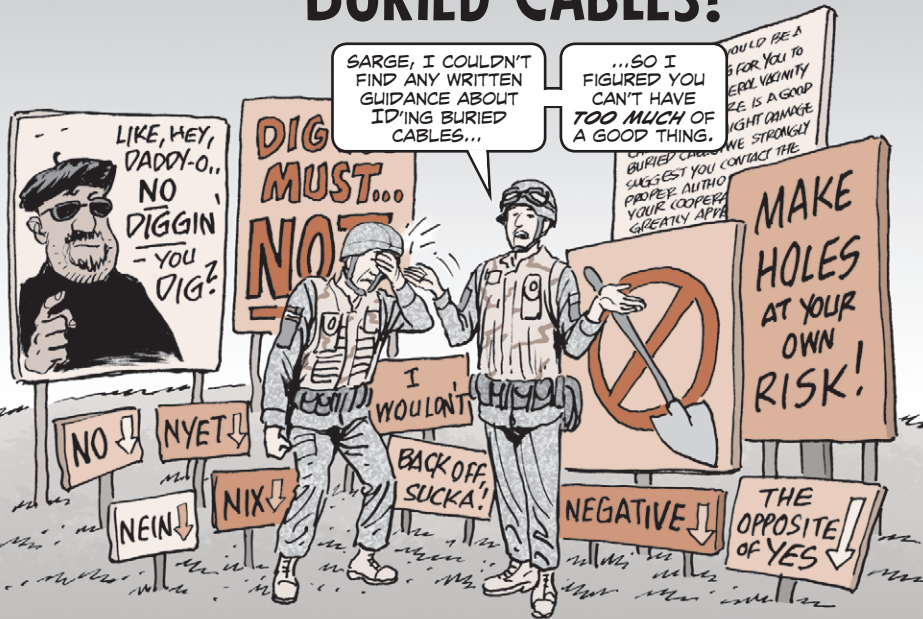
**TM 11-6625-3252-12&P**, *Operator's and Unit Maintenance Manual (Including Repair Parts and Special Tools List): Optical Fiber Test Set TS-4335/G*

**TM 11-6625-3253-12&P**, *Operator's and Unit Maintenance Manual (Including Repair Parts and Special Tools List): Fiber Optic Cable Test Set TS-4336/G.*

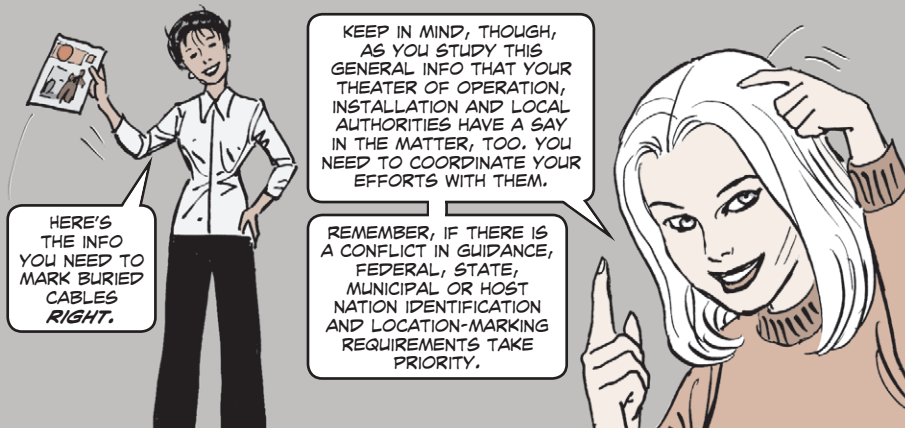




# How Do You Mark Buried Cables?



Guidance on identification and location marking of buried cables is as scattered as a buckshot blast from a sawed-off shotgun. To help, we have pulled the pellets from various sources and put them in this one shell.



## Cable-Route Markers

In general, there are two types of cable-route markers: stake- or post-mounted and surface-mounted.

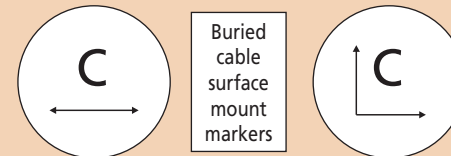
Post-mounted markers provide higher visibility and have more room for you to provided detailed information about the buried cable.

Surface-mounted markers provide a lower profile and are good when post-mounted markers are unpractical or objectionable.

The posts for post-mounted markers should be made from 24-gauge steel, aluminum or fiberglass. The thickness of the aluminum or fiberglass should be determined by how much will be needed to withstand high winds.

Surface-mounted cable route markers are made of concrete with a cap made of brass or some other durable metal. Lead was once frequently used for this cap, but is no longer allowed because of environmental concerns.

Surface-mounted markers will have the needed information impressed or cast into the metal cap. The metal cap should have a directional arrow, too, and stamped with a "C" or "D" to indicate that a cable or duct line is buried in the area.



These concrete markers will be round or square. They are 18 inches in length and 6 inches in diameter. On a paved surface, the marker will be flush mounted. In a mowed-grass area, the marker must be kept at a height at least  $\frac{1}{2}$  inch above the ground surface. In a graveled area, the marker must be at least one inch higher than the ground surface. In an uncultivated area, the marker must be at least four inches higher than the surface of the ground.



## Marker Placement

How many markers you need along your cable route is your unit's call. The word for guidance is the word sufficient. You need to use the number of markers that is sufficient to meet the need for cable recognition. In high traffic areas where construction workers, repairmen, maintenance personnel and others may be frequently working, more markers will be needed.

As a minimum, markers need to be located in areas where the cable runs along roads, railroads, pipelines, streams, irrigation or drainage ditches and any other location where excavations may take place.

Also, locate them at the beginning and the end of all cable runs, at each cable joint or splice, and wherever the cable changes direction.

Space the markers every 250 to 500 feet along a cable run depending on the activity in the area.

Markers must be visible from either direction along the cable route. Place them within two feet of the buried cable with a directional arrow pointing in both directions of the cable run. Surface markers will be placed two feet to the right of the buried cable.

## Color Codes

All buried utilities have a color assigned to them so that everyone can know what is buried. On post-mounted markers, a colored decal should be on the marker. The color of the decal should be recognizable from at least 20-feet away. Surface-mounted markers do not use color codes.

HERE ARE THE ASSIGNED COLORS FOR CABLES...

**Red**—electrical power lines, conduit systems and lighting cables  
**Orange**—communications cables, television cables, alarm or signal cables  
**White**—proposed subsurface line

OTHER NON-CABLE COLORS ARE...

**Yellow**—gas, oil, steam, petroleum or dangerous materials  
**Blue**—water, irrigation and slurry lines  
**Green**—sewer and drain lines  
**Pink**—temporary construction project site survey markings

Also, post-mounted markers should be yellow with black lettering. The lettering should be visible from at least 20 feet away.

## What the Marker Should Say

EVERY POST-MOUNTED MARKER FOR BURIED CABLE SHOULD HAVE THE FOLLOWING INFORMATION ON IT...

- Warning: Buried Cable
- a POC to contact and a phone number to call before digging in the area
- a color-coded decal indicating the type of cable or duct
- Markers in foreign countries need to be written both in English and the language of the country.



IS IT TRUE? THERE'S EVEN MORE TO LEARN ABOUT CABLES?

OH, YEAH! THIS ARTICLE HAS BARELY SCRATCHED THE SURFACE CONCERNING THE MARKING OF BURIED CABLES.

## Who to Contact

FOR FURTHER INFORMATION CONTACT  
OLIVER WHITE  
NETCOM, G-4  
ATTN: NETC-LOX  
SUPPLY AND  
MAINTENANCE  
DIVISION,  
FT HUACHUCA,  
AZ 85613

CALL HIM AT DSN  
879-6613 OR  
(520) 538-6613.  
OR EMAIL:  
oliver.white@  
netcom.army.mil

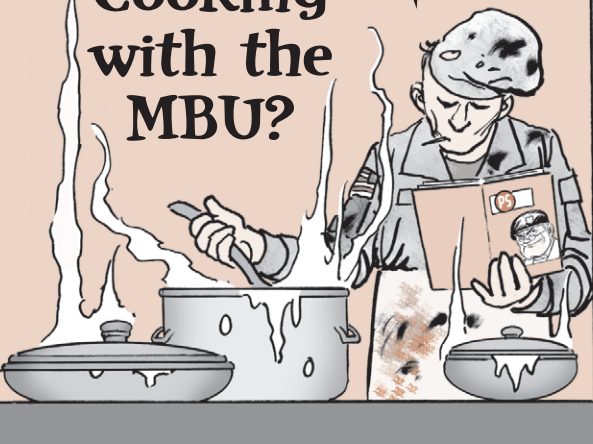


PS  
END



Modern Burner Unit...

# What's Cooking with the MBU?



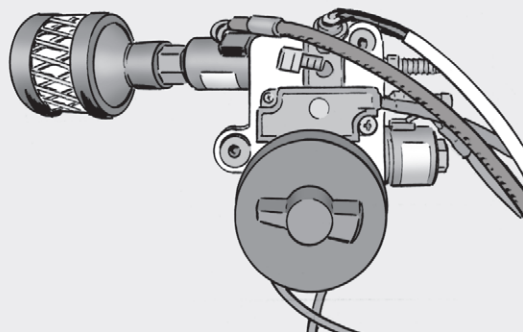
Chances are, you're using the modern burner unit (MBU) as the heat source for the griddles, ranges or cooking racks in your field kitchen. So, before you flip another burger or barbeque another chicken leg, take a look at the MBU's data plate. If the NSN is 7310-01-452-8137 and the model number is MBU100, you're cooking with an outdated model.

You need the contractor-applied modification work order (MWO) 10-7310-281-55-1 for your MBU. The MWO removes the fuel delivery block and replaces it with an upgraded one.

If model number is MBU100, the MBU's outdated

MODERN BURNER UNIT											
JAN		NSN:.....7310-01-452-8137								JUL	
		Model No.:..... <b>MBU100</b>									
		Teleflex Part No.:...MS0001								SEP	
MAY		Serial No.:...90-01020								OCT	
JUN		U.S. Patent #.....5,527,180								NOV	
		Manufactured by								DEC	
		99 00 01 02 03 04									

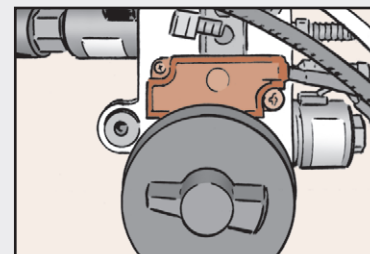
MWO upgrades fuel delivery block



Why upgrade the fuel delivery block? Because the current block in the MBU100 model supports an adjustable heat output ranging from 22,000 to 47,000 BTUs per hour. When you use the MBU100 on a serving line to keep food warm, it burns too hot—even at its lowest setting. Food gets scorched.

The upgraded fuel delivery block supports a heat output with a wider range, from 11,000 to 53,500 BTUs per hour. That means you can adjust the MBU for lower heat and not burn your food.

The upgraded block will keep the same NSN, 7310-01-462-4905. The block includes an upgraded flame sensor that can operate at higher temperatures.



PS 643



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JUNE 06

PS MORE

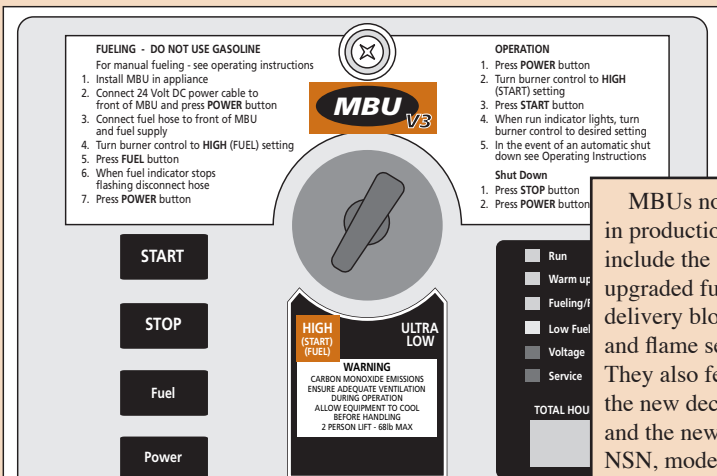


After the contractor applies the MWO, the MBU will get a new NSN, model number and part number. The data plate will reflect those changes. Here are the new numbers:

## MODERN BURNER UNIT

NSN:.....7310-01-507-9310  
MODEL No:.....MBU103  
TELEFLEX PART No:.....MS0003

The contractor will also change the decals on the control panel. One decal will identify the equipment as the MBU V3. Another decal underneath the control knob will indicate the setting for refueling.



MBUs now in production include the upgraded fuel delivery block and flame sensor. They also feature the new decals and the new NSN, model number and part number.

HERE'S WHAT THE MBU USER NEEDS TO KNOW ABOUT GETTING THE MWO APPLIED...



A contractor will apply the MWO at military installations. The U.S. Army Tank-automotive and Armaments Command (TACOM) MWO office will notify users, through your base or facility command, when the contractor is coming to your area.

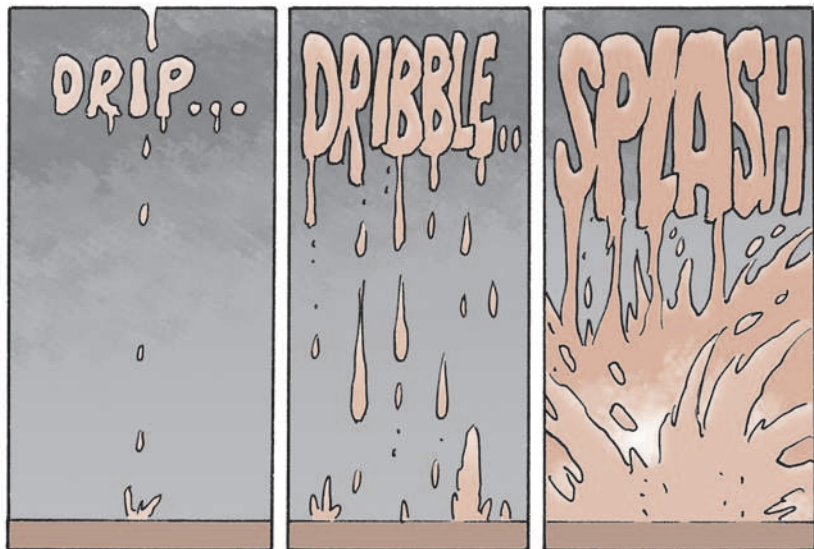
The contractor has completed more than 14,000 upgrades, and the effort should be completed by the end of 2006.

If you don't hear from your command, or if you suspect you've missed the contractor's visit, contact your unit MWO coordinator. If you don't have an MWO coordinator, contact the MBU project officer, Jude Jordan by email:

[jude.jordan@us.army.mil](mailto:jude.jordan@us.army.mil)

or by phone DSN 256-4841, (508) 233-4841.





**M**ake a mess and you get to clean it up. Clean-up is especially important if you work around hazardous materials. Fuel, oil, solvent and other HAZMAT spills must be controlled and sopped up quickly and safely to protect both you and the environment.

You need the help of spill kits. The Army stocks a variety. You'll find socks to contain large spills and small pads to use in place of drip pans. Pads are especially useful in the field because they don't have to be on level ground.

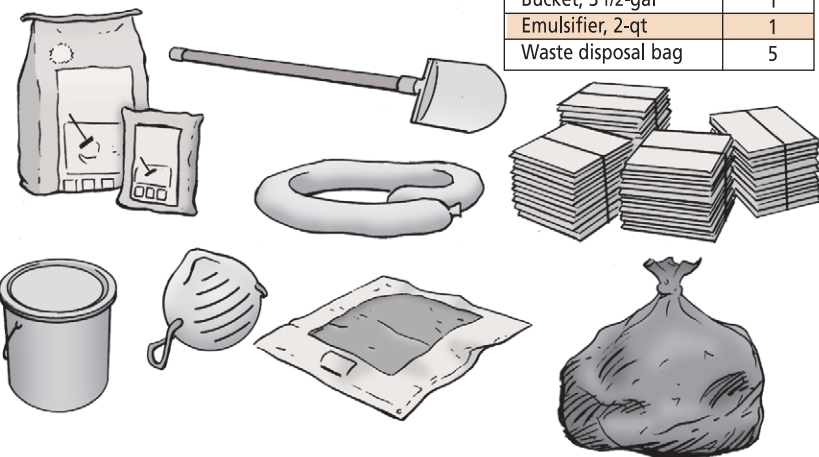
**THERE ARE SEVERAL SPILL KITS IN THE SYSTEM.**

**TAKE YOUR PICK...**

**Tote Bag Spill Clean-up Kit, NSN 4235-01-432-7909**

Contents	Qty
Tote bag, water-resistant nylon	1
Pad, 18x18x3-in	4
Sock, 2-in x 5-ft	2
Absorbent, peat moss, 3/4 cubic foot bag	1
Waste disposal bag	2

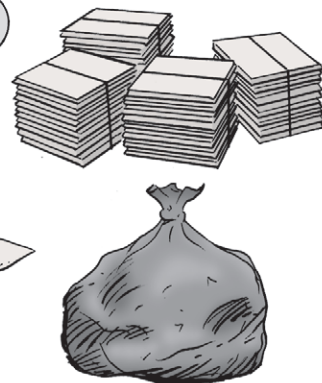
Spill Clean-Up Kit (25-gal drum), NSN 4235-01-432-7912		
Contents	Qty	
Pads, 18x18x3-in	7	
Sock, 4-in x 8-ft	1	
Sock, 4-in x 4-ft	2	
Absorbent, peat moss, 3/4 cubic foot bag	1	
Tyvek protective suit	2	
Nitrile gloves	2 pairs	
Safety goggles	1 pair	
Waste disposal bag	3	



Spill Clean-up Kit (55-gal drum), NSN 4235-01-423-7214		
Contents	Qty	
Pillow, filled with 2 lbs of peat moss	3	
Pads, 18x18x3-in	15	
Sock, 4-in x 8-ft	2	
Sock, 4-in x 4-ft	2	
Absorbent, peat moss, 3/4 cubic foot bag	3	
Tyvek protective suit	3	
Nitrile gloves	3 pairs	
Safety goggles	3 pairs	
Waste disposal bag	5	



Spill Clean-Up Kit (55-gal drum), NSN 4235-01-423-7221		
Contents	Qty	
Pillow, filled with 2 lbs of peat moss	3	
Pads, 18x18x3-in	10	
Sock, 2-in x 10-ft	5	
Absorbent, peat moss, 3/4 cubic foot bag	5	
Tyvek protective suit	2	
Nitrile gloves	2 pairs	
Safety goggles	2 pairs	
Shovel, non-sparking	1	
Bucket, 3 1/2-gal	1	
Emulsifier, 2-qt	1	
Waste disposal bag	5	



Spill Clean-up Kit (55-gal drum), NSN 4235-01-391-3110		
Contents	Qty	
Sock, 4-in x 4-ft	6	
Absorbent, peat moss, 18-lb bag	2	
Rubber gloves, chemical resistant	2 pairs	
Dust mask, disposable	6	
Shovel, non-sparking	1	
Pushbroom	1	
Waste disposal bag, 55-gal	4	
Hazardous label, blank	1	

SPILL KITS COST PLENTY. ONCE YOU'VE GOT ONE, SAVE BUCKS BY USING THIS LIST TO ORDER THE REPLACEMENT ITEMS...



Item	NSN	Qty
Pad, 18x18x3-in	4235-01-423-1463	30
Sock, 4-in x 8-ft	4235-01-423-1465	10
Sock, 4-in x 4-ft	4235-01-416-9008	20
Sock, 2-in x 10-ft	4235-01-423-1467	20
Sock, 2-in x 5-ft	4235-01-416-8997	40
Absorbent, peat moss, 2 cubic feet	4235-01-423-0711	3
Shovel, spark-free	5120-01-332-9954*	1
Pushbroom, handle	7920-01-460-8614*	1
Pushbroom, head, 18-in wide	7920-00-292-2367	1
Safety goggles	4240-01-292-2818	1
Nitrile gloves, small	8415-01-492-0176*	100
Nitrile gloves, medium	8415-01-492-0179*	100
Nitrile gloves, large	8415-01-492-0178*	100
Nitrile gloves, x-large	8415-01-492-0180*	100
Dust mask	4240-01-463-5449*	20
Bucket, 3 1/2-gal	7240-00-160-0455	1
Waste disposal bag, 57-gal	8105-01-183-9764	100



\*Order on a DD Form 1348-6 and put "NSN not on AMDF" in the REMARKS block.

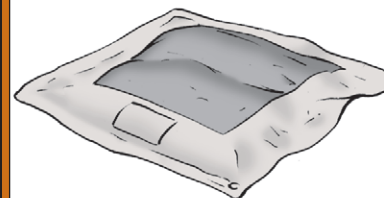
## Some New Products

The Army now stocks some drip pillow berms you can use instead of drip pans. Each drip pillow berm consists of a jacket with a replaceable absorbent pillow inside. You can drive over these berms without damaging them. They're weighted down to withstand more than 40 mph winds, and they will not tip or splash. They won't absorb water, so you can leave them out in the rain. Each berm comes with a grommet for tie down or retrieval.

Here's what's available:

Item	NSN 4235-01-505-	Size in inches	Qty per box	Replacement pillow, NSN 4235-01-510-	Qty per box
Drip pillow berm	1709	22 x 22	5	1292	10
Drip pillow berm	2550	24 x 36	5	1300	10

Drip pillow berm, 22 x 22

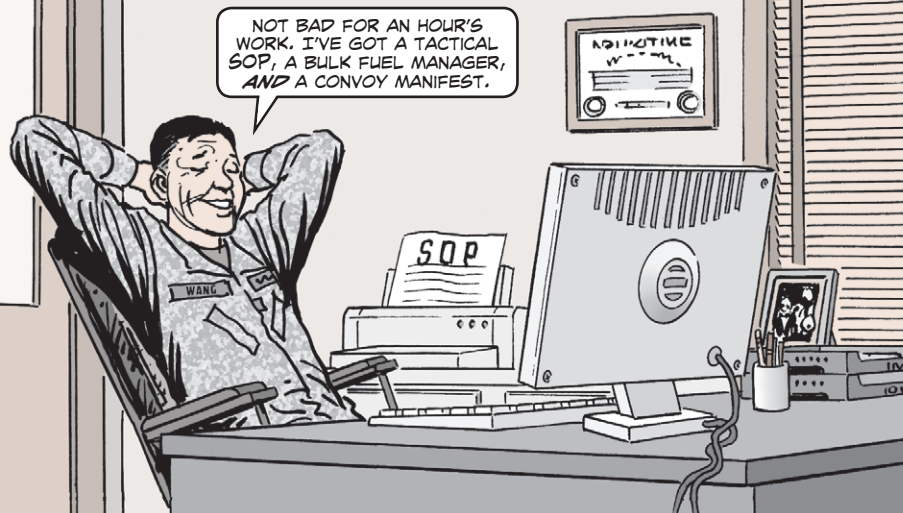


Drip pillow berm, 24 x 36





# LOGNet, Your Online Tool Room



Dear Editor:

We have received many requests for tactical SOPs (TACSOPs) for the new modular logistics units of the brigade combat team (BCT). Courtesy of the 4th Inf Div, the Logistics Network (LOGNet) now offers TACSOPs on-line:

BCT Support Bn (BSB)  
BCT BSB Distribution Company  
BCT BSB Field Maintenance Company  
BCT Combat Bn Forward Support Company

To get the TACSOPs go to the TACSOP URL:

[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=13611\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=13611_201&ID2=DO_TOPIC)

In the Features box (center of the page) click on the TACSOP you want.

## Submissions Wanted

LOGNet welcomes similar TACSOPs for the new sustainment brigade and the new combat support battalions (CSB). If you have one in a Microsoft Word format, upload it to the TACSOP section by following SOP Library submission procedures.

Thanks for keeping your readers informed!

Sincerely,  
Mr Bob Dalton,  
LOGNet

*Editor's note: A growing strength of our Army is the ability of soldiers to share info among professionals, regardless of rank. LOGNet is a living library of knowledge and ideas. Here's more info on LOGNet.*

## The SOP Library and Topic Areas

Common to most pages in LOGNet is the Explorer column shown below. Four major communities and nine topic folders are found in the Explorer column. The communities include: Ordnance, Transportation, Quartermaster, and Battle Staff, Multifunctional and Automation. Clicking on any of the communities or topic folders will take you to a list of available topics in that area.

The following list of topics is representative of what's available.

**Quartermaster—An Army Combat Uniform topic sponsored by PEO Soldier:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=13833\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=13833_201&ID2=DO_TOPIC)

**Ordnance—A topic area devoted to Field Maintenance Issues:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=12183\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=12183_201&ID2=DO_TOPIC)

**Quartermaster—A Rapid Fielding Initiative (RFI) Information topic sponsored by PEO Soldier:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=9436\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=9436_201&ID2=DO_TOPIC)

**Official LOGNet Tools—The official LOGNet Tools topic:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=10278\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=10278_201&ID2=DO_TOPIC)

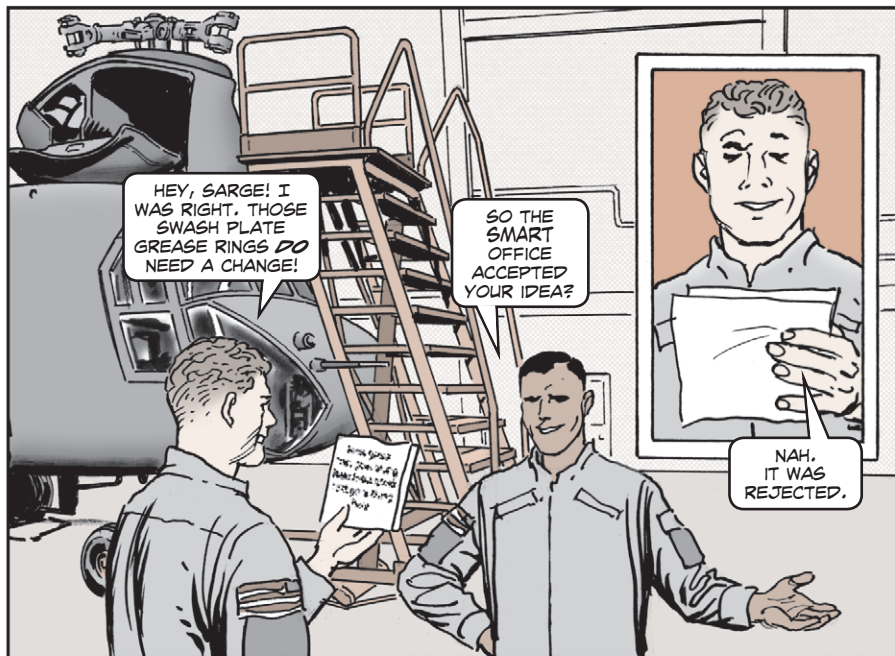
**Battle Staff, Multifunctional and Automation—A topic on CFLCC C4 Theater Property Book Operation:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=12690\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=12690_201&ID2=DO_TOPIC)

**Logistics Training Development—The Logistics Training Development topic sponsored by CASCOM:**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=14289\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=14289_201&ID2=DO_TOPIC)

**SOP LIBRARY—A Logistics SOP Library (more than 90 SOPs/TACSOPs):**  
[https://lognet.bcks.army.mil/lognet/ev\\_en.php?ID=13603\\_201&ID2=DO\\_TOPIC](https://lognet.bcks.army.mil/lognet/ev_en.php?ID=13603_201&ID2=DO_TOPIC)



# WHEN SMART



**I**t's inevitable that some suggestions for equipment improvement will be turned down in the SMART program. Sometimes those rejections recognize the soldier has correctly identified a problem but that another solution has already been adopted.

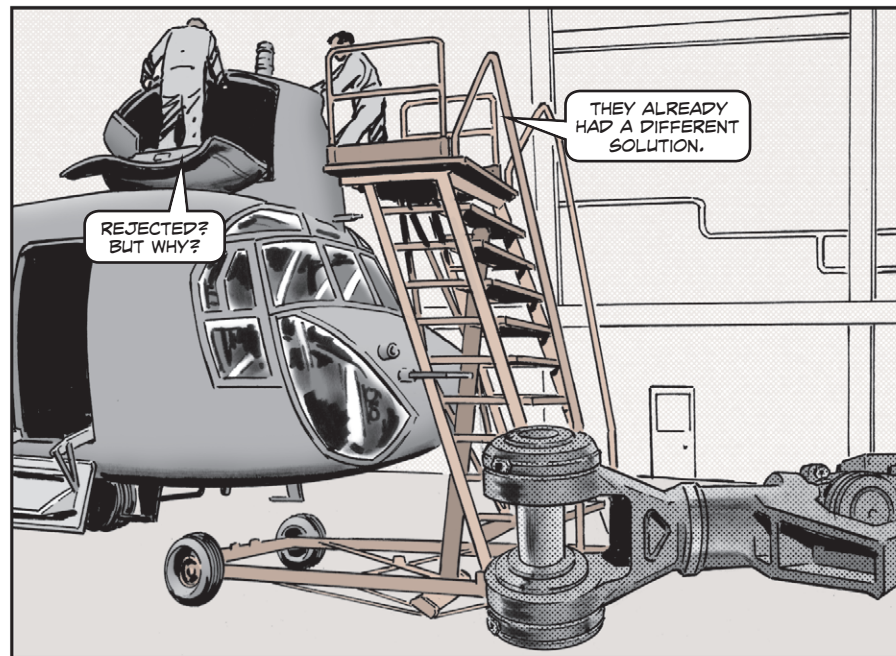
An example is the grease seal, NSN 5330-00-849-4366, for the CH-47, shown in Fig 182-2, TM 55-1520-240-23-P.

A soldier noted in his suggestion that the grease seal comes as a single piece. The seal is removed every 100 hours in order to inspect the swash plate bearings. Unfortunately, the seal can be damaged during removal. Replacement requires removal of blades, rotor head and rain shield.

The soldier's solution was to cut the replacement grease seal in half. The two equal parts could be installed with less effort at the unit.

The SMART program evaluated and rejected the idea because the problem had already been addressed by Research, Development & Engineering Command (RDECOM) personnel. They have been developing a procedure for removing the one-piece swash plate grease seal since 2004.

# REJECTIONS HELP



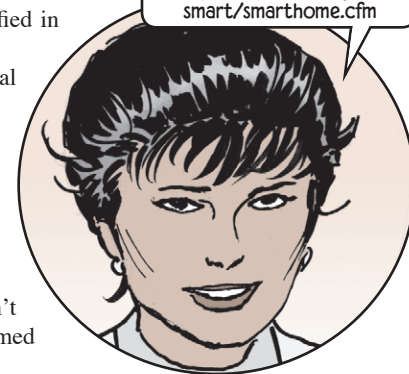
The RDECOM solution allows the cutting of the grease seal in one place. A special tool has already been designed to allow the proper cut to be made and to ensure that each seal modified is modified in the same manner.

Flight testing of this modified grease seal will begin this year.

However, the modified seal is a temporary fix. Past problems associated with both the forward and aft swash plate are driving development of new swash plates. The new swash plates will use a three-piece grease seal.

So, while the soldier's suggestion wasn't implemented, he was nonetheless informed about both an interim and a final fix.

MORE INFORMATION ABOUT SMART IS AVAILABLE ON THEIR WEBSITE...  
<http://aepps.ria.army.mil/smart/smarthome.cfm>







## MWO Regulation Updated

AR 750-10, *The Army Modification Program*, was revised 24 Feb 06. It updates the emergency modification work order (MWO) process, changes maximum completion time of routine MWOs from 4 to 5 years, and sets the correct path for generating a materiel change number in the modification management information system.

## M1114 Turret Handle Update

TM 9-2320-387-24P gives you parts stock numbers for your M1114 HMMWV, with at least one exception! Now you can order either the aluminum turret crank handle with setscrews or just the setscrews separately. NSN 5340-01-536-0999 gets you the replacement handle with setscrews. If you only need the setscrews, use part number 6431807-118, CAGE code 6W728, to place an order using DD Form 1348-6 through DLA at:

[esoc@dscc.dla.mil](mailto:esoc@dscc.dla.mil)

Contact Richard Fuller, DSN 850-1038, or [richard.fuller@dla.mil](mailto:richard.fuller@dla.mil) for more information.

## COMBAT VEHICLE EVALUATION TEAM

So your combat vehicle is damaged, but you're not sure if it's bad enough to warrant depot overhaul or repair. The Combat Vehicle Evaluation (CVE) team can help. Authorized by AR 750-1, the CVE team will come to your unit to assess damaged or defective vehicle hulls and turrets to determine whether they need depot-level repair. Vehicles with high mileage, repeated downtime, and accident or fire damage are all candidates for the program. For more details, email the CVE team at:

[cve@tacom.army.mil](mailto:cve@tacom.army.mil)

## SOLAR SHADE SYSTEMS

Need replacement tent pins for your Type I or Type II solar shade system? NSN 8340-00-985-7461 brings an 18-in steel pin. NSN 8340-00-823-7451 brings a 12-in steel pin. If you plan to mix the pin sizes when you pitch the solar system, use the 18-in pins for the guy ropes and corners. Use the 12-in pins through the foot loops along the edge of the cover.

## SOLAR SHADE NSNs

Scorching sun? Extreme heat? No shade? You need solar shades to protect you, your shelters, munitions, vehicles and other equipment from the sun. The shades block out 60 percent of the sunlight. Here are the NSNs:

Solar Shade	Size in feet	NSN 5410-01-519-
Type I	35 x 35	7041
Type II	50 x 50	7185

Each NSN brings a fly, poles, stakes, rope and repair kit.

## USE CORRECT JAVELIN SHIPPING CONTAINER

The only container the Javelin weapon system's command launch unit (CLU) should be shipped in is the approved CLU shipping and storage container, PN 13307073-001, CAGE 094PZ. It was specifically designed to protect the CLU. If you use other containers, you risk expensive damage to the CLU.

For info on properly shipping the CLU, see WP 0012 00 in TM 9-1425-688-12.

If you have questions about shipping, contact the Close Combat Weapon Systems Project Office at DSN 645-7430/(256) 955-7430 or email:

[steven.potts@us.army.mil](mailto:steven.potts@us.army.mil)

## ARMY ONLINE SAFETY TRAINING

The US Army Combat Readiness Center offers a number of safety courses through its Combat Readiness University (CRU). The CRU website provides links to the courses:

<https://safetylms.army.mil/librix/loginhtml2.asp?v=usasc>

## FMTV Engine Warranty

Tell your buddies in support to look at this website: <http://www.tvsonlinesupport.com>

That's where they'll find procedures for warranty claims from SWA on FMTV vehicles with CAT engines.

## Correct Tire Pressure Vital for Up-armored HMMWVs

Riding around on just any tire pressure is sure death for your up-armored HMMWV's radial tires.

Pay attention to the correct tire pressure as shown in this chart, and remember that "unloaded" means no sandbags or other added items for protection:

Vehicle	Front PSI	Rear PSI
Unloaded* M1113, M1151, M1152 M1114, M1151P1	20 35	20 45
Loaded (gross vehicle weight) M1113, M1151, M1152 M1114, M1151P1	40 40	50 50
Mud, sand and snow (30 mph max speed)	20	30

\*Includes driver plus one passenger

Note that this information is different from that shown in Change 3 to TM 9-2320-387-10 on Page 1-12. Make a note until the TM is updated.

## No Repair for HMMWV Starter

When starter, NSN 2920-01-507-7423, fails, do not try to repair it. It is not cost-effective to repair this starter because it's more reliable and costs less than the old starter, NSN 2920-01-168-7891. The SMR code for the new starter is PAOZZ, not PAOFF as currently shown on FED LOG.

## ARMY OFFERS NO-COST FOREIGN LANGUAGE TRAINING

Free Rosetta Stone foreign-language training is available for all active Army, National Guard, Reservists, and Department of Army civilian personnel. The training, including a course on Arabic, can be found on Army Knowledge Online (AKO). Logon to AKO, click MY EDUCATION, and choose the ARMY E-LEARNING PORTAL PAGE link:

<https://www.us.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?