

Issue 673

**PS**

December  
2008

**THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY**

TB 43-PS-673

Approved for  
Public Release;  
Distribution is  
Unlimited

**THE RESULTS OF  
NO PM ARE ALWAYS  
THE SAME...**



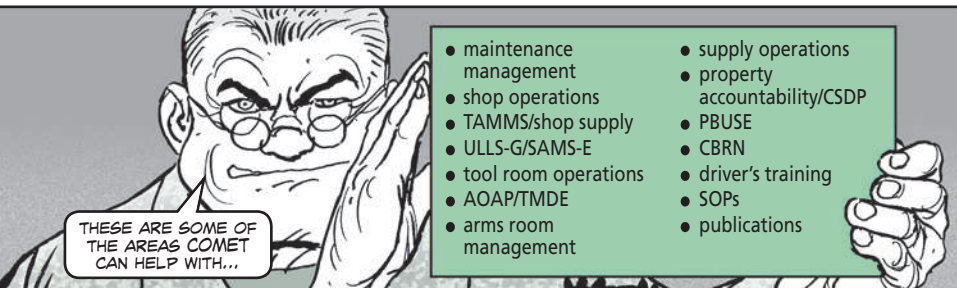
***A TANGLED MESS!***

# GOT PROBLEMS? *CALL COMET*



**I**f your unit is having trouble with property accountability or figuring out what technical publications you need or managing your arms room, it's time to call COMET.

COMET stands for command maintenance evaluation and training team. A COMET's whole purpose is to help you solve through both assistance and training your unit's logistical problems. Since teams are composed of retired warrant officers and NCOs, they know what they're doing. Their work is confidential—they won't be making trouble for you.



The Army has COMETs at Forts McPherson, Bragg, Stewart, Drum, Campbell, Hood, and Lewis. You can contact them through your division or brigade's G-4 or S-4 or through the COMET program manager listed below.

If you're not located at one of these posts, don't despair. The COMET program supports other posts and the Guard and Reserve. To arrange a COMET visit, contact COMET Program Manager Al Rounds at DSN 367-7114, (404) 464-7114, or email:

[al.rounds@us.army.mil](mailto:al.rounds@us.army.mil)

TB 43-PS-673, 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.

## ISSUE 673 DECEMBER 2008



### COMBAT VEHICLES

Stryker Starting Procedures  
M1-Series Tank Towing Deflector  
M2/M3-Series Bradley Road Arm Bearings  
M88A1 Recovery Vehicle Engine Grilles  
M992A2 Ammo Carrier Commander's Seat



### WHEELED VEHICLES

HMMWV Headliner Adhesive  
FMTVs and Lunette Trailer Safety Chains  
FMTV Batteries  
2 1/2-, 5-Ton FMTV Cargo Cover Kit Parts  
2 1/2-, 5-Ton Truck Torque Rod Check  
HMMWV Seat Clamp Replacement  
Publications Assistance



### SMALL ARMS

CCMCK Training Rounds  
FN 303 Launcher Cautions  
Gage Storage and Transportation



### COMBAT ENGINEERING

AN/PSS-14 Mine Detector Training Program  
SEE Steering Pump Filter Checks  
IHME Cold Weather PM  
IHME Starting Tips  
Automated Integrated Surveying Instrument  
Bridge Boat Cold Weather PM

2



### AVIATION

35

2-4 Shadow Unmanned Aircraft System Maintenance 35-37  
5 M260/M261 Rocket Launcher Desert Firing 38-39  
6-7 Hellfire Missile System Launcher Rail Wear 40  
8 AH-64D Engine Flushing, IPAS 41  
9 CH-47D Rotor Hub Oil Reservoir Filling 42  
OH-58D .50-Cal Gun Umbilical Cable 43



### COMMUNICATIONS

44

10 AN/VAS-5A Driver Vision Enhancer 44-45  
11-13 Generator Acoustic Suppression Kits 46-47  
14 AN/TPX-56(V)2 & (V)3 Interrogator Set 48  
15 AN/TMQ-41/41A Radiosonde Sets 49  
16 AN/TSC-85C & D-93C & D Satellite Commo 50  
17



### LOGISTICS MANAGEMENT

51

18 Source, Maintenance and Recoverability Codes 51-53  
18-19 HAZMAT Packaging Help 54-55  
20  
21



### SOLDIER SUPPORT

56

Army Combat Uniform Knockoffs 56-57



### CBRN

58

M17-Series Decon Desert PM 58-59  
M40A1/M42A2 Mask Gaskets 60

You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems and questions or comments on material published in PS.

Just write to:

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

Or email to:

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

Internet address:

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

By order of the Secretary of the Army:

**GEORGE W. CASEY, JR.**

General, United States Army Chief of Staff

Official:

*Joyce E. Morrow*  
**JOYCE E. MORROW**

Administrative Assistant to the Secretary of the Army

0826702

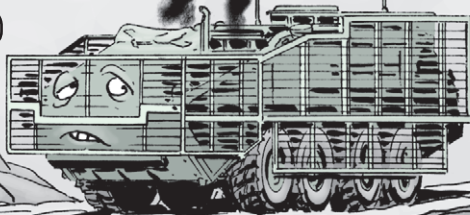
PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898-5000. Periodical postage is paid at the Huntsville, AL post office and at additional mailing offices.

Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, USAMC LOGSA (AMXLS-AM), 5307 Sparkman Circle, Redstone Arsenal, AL 35898-5000.



# GETTING OFF TO A GOOD START

OH, MAN!



WHAT A TERRIBLE PLACE TO BREAK DOWN!

DINNER...

IS...

SERVED!

PROPER STARTUP MIGHT'VE KEPT THIS FROM HAPPENING!!

DRIVERS, WP 0030 IN TM 9-2355-311-10-1-1 (NOV 06) TELLS YOU THE **RIGHT WAY** TO START UP YOUR STRYKER.

TRY TO START IT THE WRONG WAY AND YOU COULD END UP WITH PROBLEMS.

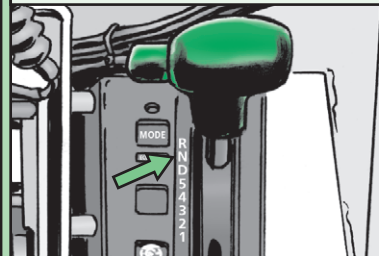
HERE'S THE RIGHT WAY TO HANDLE YOUR VEHICLE DURING AND JUST AFTER START-UP...



## During Start-up

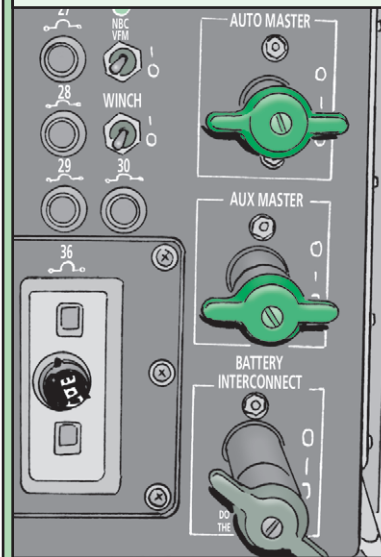
1. Apply the parking brake.

2. Check the gear selector. It should be in neutral.

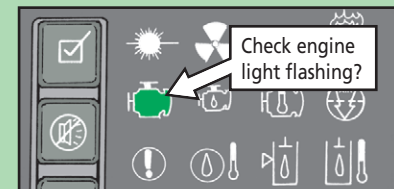


3. Ensure all communication and electrical equipment switches are **off**. Leaving the radios or lights on during start-up will damage the radios and drain the batteries.

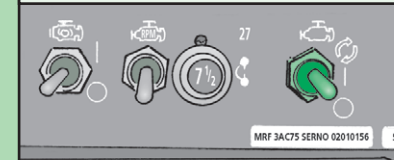
4. Set the AUTO MASTER and AUX MASTER switches to the on position.



5. Eyeball the check engine/diagnostics indicator light. It should flash when the AUTO MASTER and AUX MASTER switches are toggled on. If the light fails to flash or continues to flash after startup, call your mechanic.



6. Set the three-position ignition switch to the middle position.



7. Wait until the engine preheat light goes out.



8. Toggle the ignition switch to the up position and release it when the engine starts. Never engage the ignition switch for longer than 15 seconds at a time and allow at least two minutes between start attempts so the starter can cool down. Be careful not to engage the ignition switch while the engine is running or you'll damage the starter.

PS MORE



Also, **do not** push down or hold the accelerator pedal while cranking the engine. The right amount of fuel for start-up is automatically provided.

If the engine does not start after three tries, refer to the troubleshooting procedures in your operator's manual.

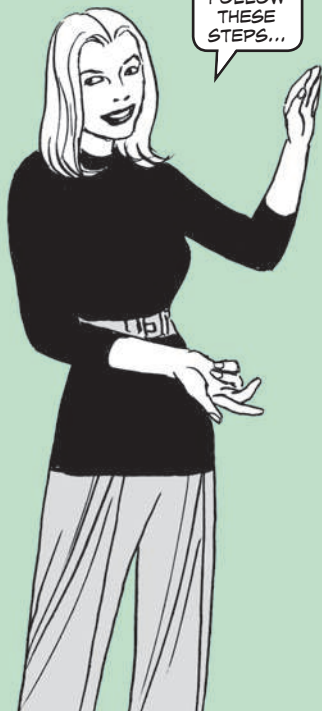
If the engine fails to reach 100 rpm or fires intermittently after 15 seconds of cranking, stop and call in your mechanic.

## After Start-up

AFTER YOU'VE STARTED YOUR STRYKER, ALLOW THE ENGINE TO IDLE ON ITS OWN FOR AT LEAST 30 SECONDS.

THAT ALLOWS ENOUGH OIL TO CIRCULATE TO THE TURBOCHARGER BEARINGS TO PREVENT DAMAGE.

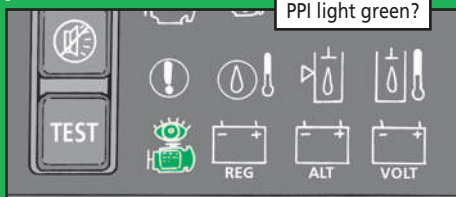
THEN FOLLOW THESE STEPS...



**1. Watch the oil pressure gauge. The needle should begin to rise 15 seconds after start-up. If it doesn't, shut down the vehicle immediately and call your mechanic.**



**2. Check the power pack interface (PPI) light. It should be green. If it's yellow or amber, tell your mechanic.**



**3. Eyeball the check engine/diagnostic indicator lamp on the driver's instrument panel. If it lights up or starts to flash, call your mechanic.**

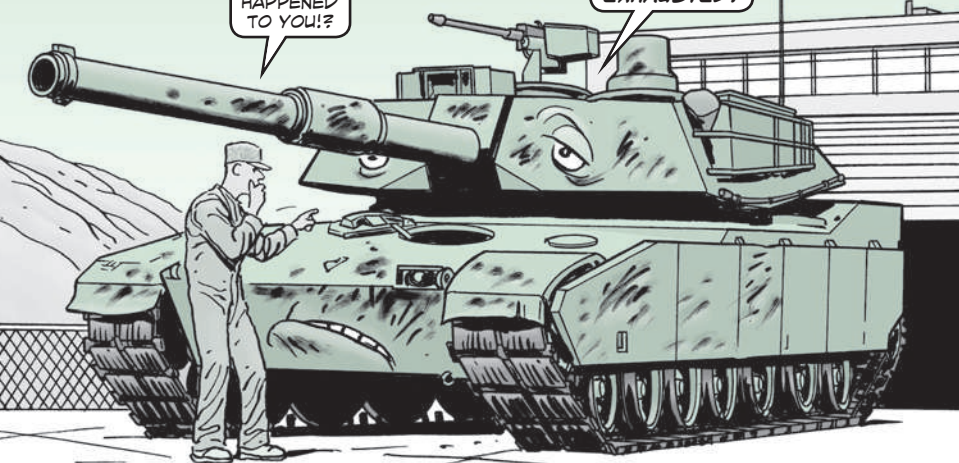
**4. Allow the oil and air pressure gauges to reach normal operating range before driving the vehicle.**

**5. Check the engine idle speed. It should be approximately 700 rpm for about the first 10 minutes after start-up. Then, automatic high-idle begins and will boost engine speed to around 1,200 rpm.**

M1-Series Tanks...

WHAT  
HAPPENED  
TO YOU!?

I GOT  
EXHAUSTED!

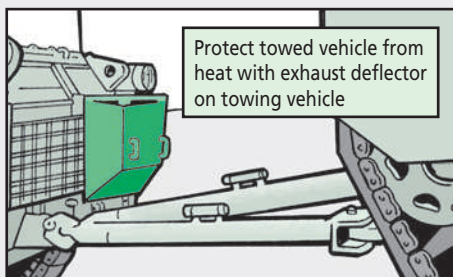


## DEFLECT HEAT PROBLEMS



AN ENGINE EXHAUST DEFLECTOR  
IS A MUST IF YOU WANT TO AVOID  
A FIRE HAZARD WHEN TOWING  
ONE TANK WITH A SECOND ONE.

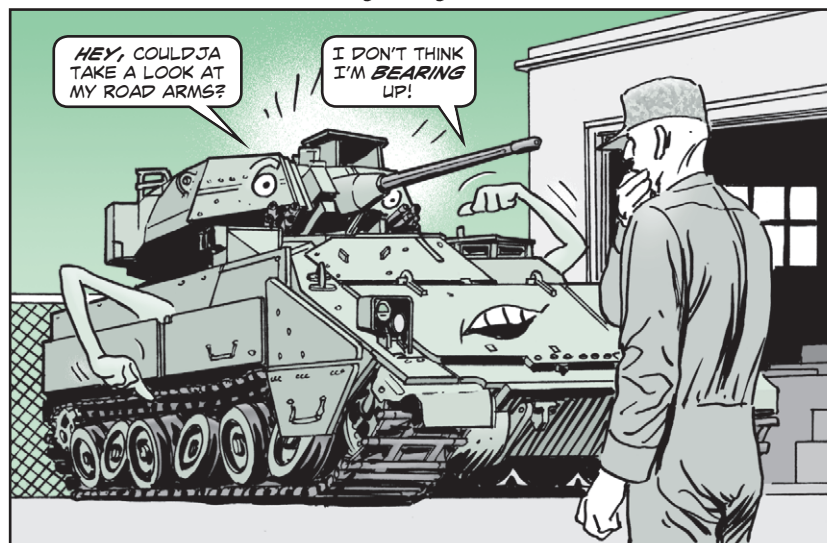
A deflector directs the hot exhaust from the towing tank upward and away from the disabled tank. Without it, the exhaust can damage the disabled tank's vision blocks, hatch covers, precleaner, and even the vulcanized rubber on the scavenger shaft. That means even more repairs will have to be made.



Exhaust deflectors aren't in the supply system, so you'll have to make one. The plans are in Fig 7 of Appendix D in the -20-1-5 TMs. Then consult your -10-2 TM for proper towing procedures.

If you have trouble mounting the deflector to the exhaust grate of the towing tank, try grinding down the deflector's lower hook a bit to help it fit.

# Wrasslin' With the Road Arms

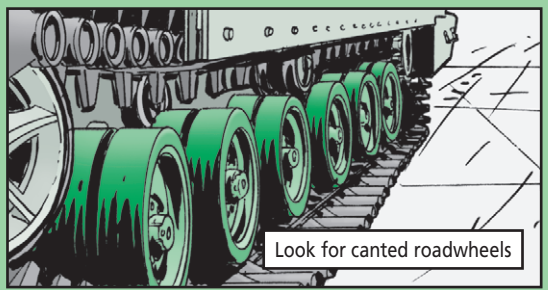


**M**echanics, the road arm bearings, NSN 3120-01-102-4700 (outer) and NSN 3120-01-102-4701 (inner), on some Bradleys have been failing. Soft bearings are part of the problem, but lack of lubrication is also a culprit. The added weight of belly armor and reactive armor tiles just compounds the problem.

THAT'S WHY TACOM RECOMMENDS YOU PERFORM AN INSPECTION OF ALL BRADLEY ROAD ARMS AS SOON AS IT'S CONVENIENT, BUT NO LATER THAN THE NEXT SEMIANNUAL OR 1,500 MILE SERVICE.



1. Perform a visual inspection. Are any of the road arm seals leaking or protruding? Are any of the road arms out of alignment relative to the hull and in comparison with other road arms? Are any of the road arms canted at an angle?

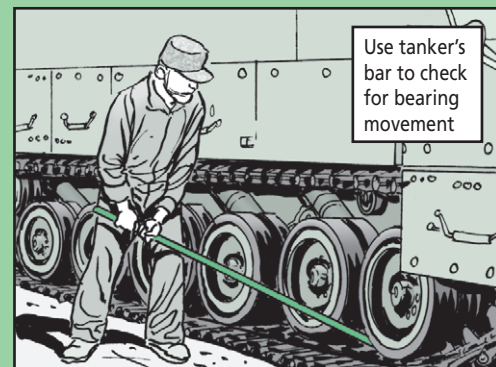


2. Use a tanker's bar to pry the roadwheel up from the track. This is a quick check for a broken torsion bar, but you can also use it to watch and feel for movement in the road arm that signals free play in the bearings.

3. Put the tanker's bar between the double roadwheels and try to move the roadwheels on the spindle. Movement indicates bearing problems.

If any of these three tests lead you to believe there's a problem, lift the suspect roadwheels with the dogbone tool, NSN 4910-01-118-7711. With the roadwheels in the air and no longer supporting the vehicle's weight, use the tanker's bar to test for movement again. If the roadwheels move, you need to disassemble and repair the bearings.

If the bearings show a lack of lube when disassembled, you should assume that **all** of the road arms on that vehicle lack proper lubrication. It's strongly advised that you go ahead and inspect and lubricate all of that vehicle's road arms.



## Lubrication Update

Proper lubrication and service info is not in the -10 or -20 level TMs. Until those TMs can be updated, make sure the road arms and housing assemblies are lubed with GAA semiannually or every 1,500 miles, whichever comes first.

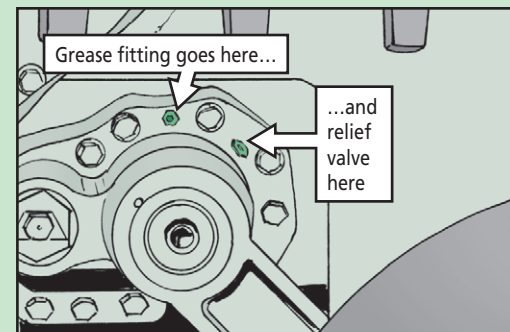
To lube a road arm that's mounted on the vehicle, remove the two plugs, NSN 4730-00-278-2965, at the top of the road arm housing.

Install a grease fitting, NSN 4730-00-050-4208, into the top hole and a pressure relief valve, NSN 4820-00-542-5683, into the side, angled hole.

Add GAA to the grease fitting until you see clean grease coming out of the relief valve. Wipe away the excess grease, then replace the fittings with the plugs.

You'll find the complete scoop on the road arm bearings in TACOM MAM 08-030:

[https://aeaps2.ria.army.mil/commodity/mam/tacom\\_wn/08/mam08-030.html](https://aeaps2.ria.army.mil/commodity/mam/tacom_wn/08/mam08-030.html)



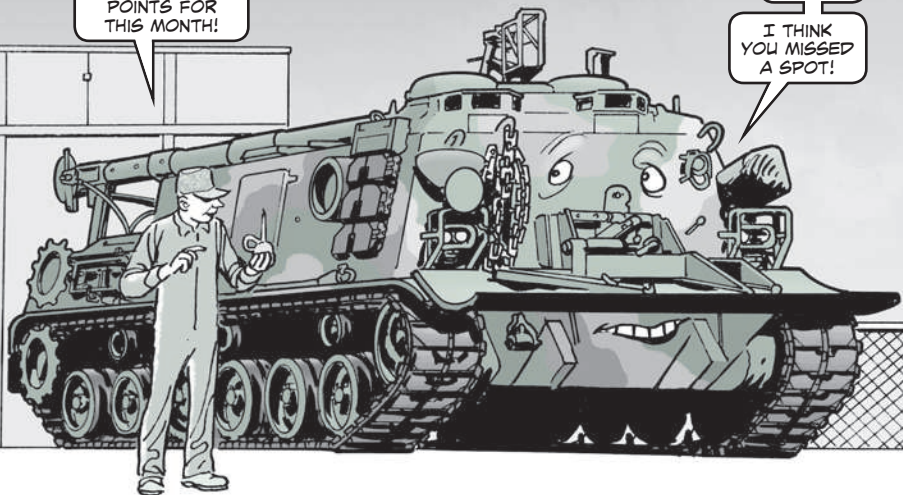


# HINGES NEED LUBE, TOO

WELL, THAT  
TAKES CARE OF  
YOUR OIL CAN  
POINTS FOR  
THIS MONTH!

ARE YOU  
SURE?

I THINK  
YOU MISSED  
A SPOT!

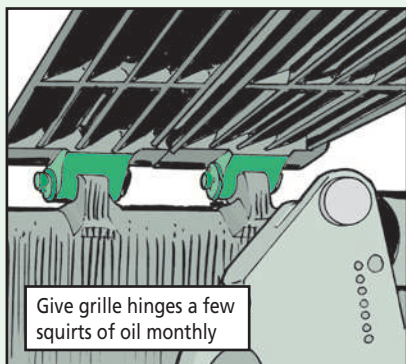


Dear Half-Mast,

I've found that when many crewmen lube their M88A1 recovery vehicles, the engine deck grilles are often forgotten. The retaining bolts that hold the grilles in place usually get a shot or two of oil, but the hinges are left to rust.

Those grilles are pretty heavy. And a rusty hinge makes them just that much harder to raise when you need to. A couple squirts of oil once a month will keep them moving and make your job a little easier.

SSG G.J.K.



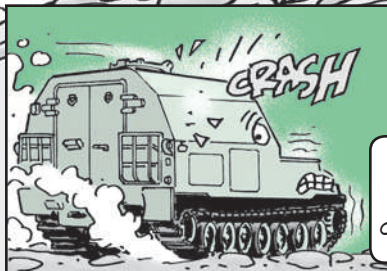
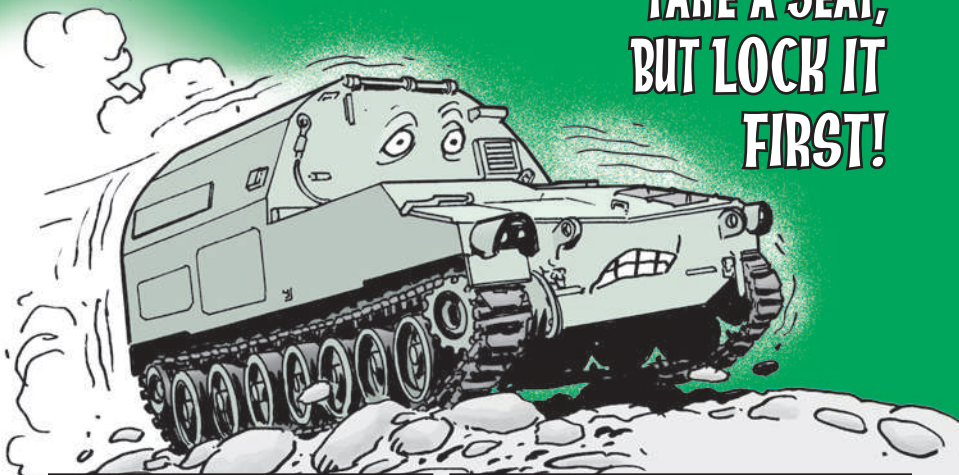
Give grille hinges a few  
squirts of oil monthly

Dear Sergeant G.J.K.,

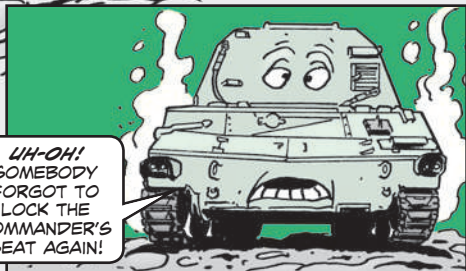
As they say, "Oil's well that ends well!" Mechanics, while you have that oil can out, don't forget to give the engine deck grille hinges a squirt.

*Half-Mast*

# TAKE A SEAT, BUT LOCK IT FIRST!



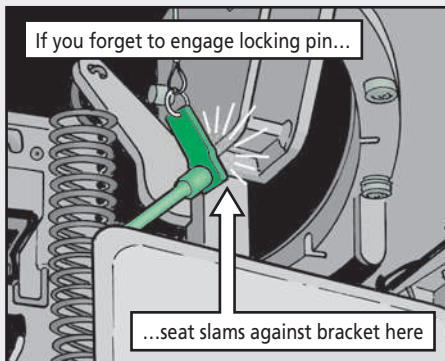
**UH-OH!**  
SOMEBODY  
FORGOT TO  
LOCK THE  
COMMANDER'S  
SEAT AGAIN!



Crewmen, when your ammo carrier's on the move, there's an important step to remember before planting your rear end on the commander's seat.

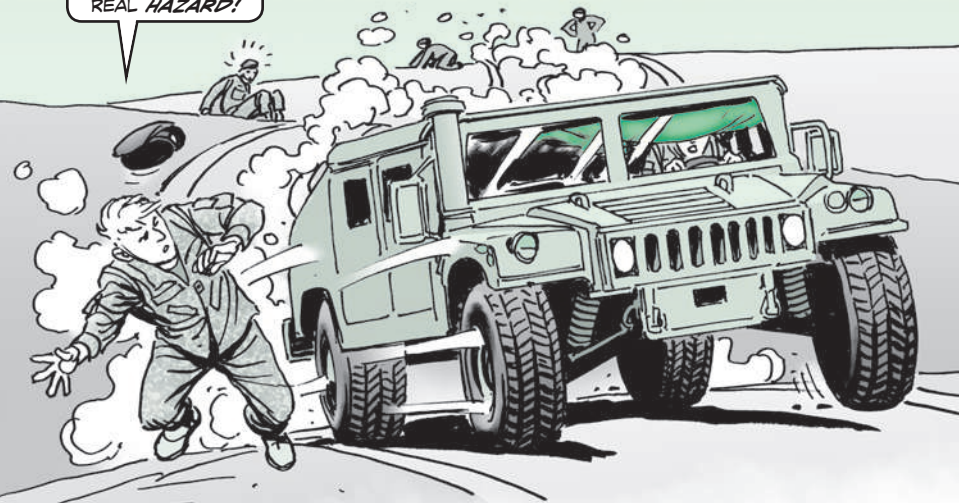
If you forget to engage the locking pin, the seat will swing back and forth against the stop bracket. If it hits hard enough, the seat rail can bend or even snap off. You could be seriously hurt if the seat breaks loose during operation.

So, whenever you lower the commander's seat to take a load off, make sure you remember to slide the locking pin in place. If it's missing, get a new locking pin with NSN 5315-00-904-6876.



# STICKY SITUATION

YIKES! THAT  
DROOPY LINER'S A  
REAL HAZARD!



Dear Half-Mast,

We need your help. My unit has M1025 HMMWVs with sagging headliners. How do we seal them back in place? And what can we use to remove the sticky, old adhesive from the roof?

SSG D.L.

Dear Sergeant D.L.,

It's a sticky situation when your HMMWV's insulation liner loses its sticking power. The self-stick backing on the headliner turns loose and the liner droops.

Fix this by first eyeballing the inside roof of your hardshell HMMWV to see if the liner has any loose spots. Then glue loose spots back in place using primer adhesive, NSN 8040-00-826-3535. You may have to peel back the liner to give yourself room to apply the adhesive. Hold the liner against the roof for about three minutes while the adhesive dries.

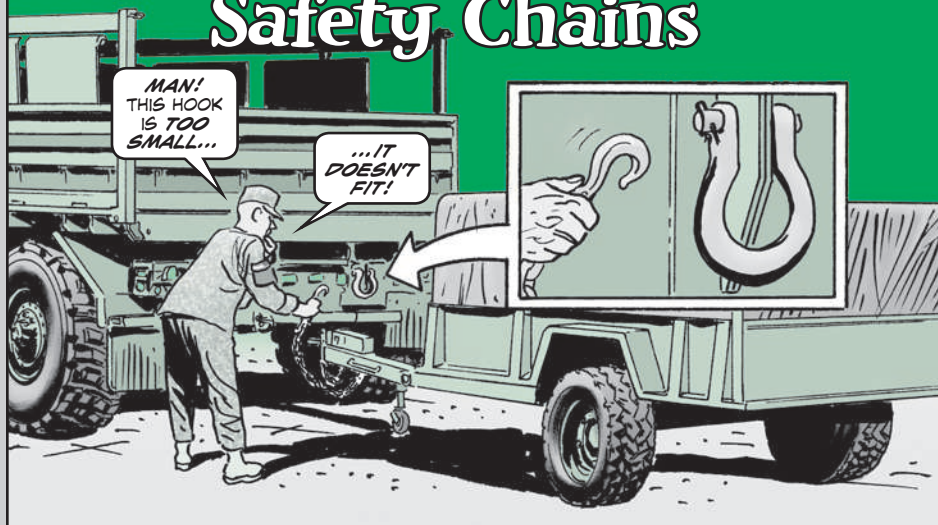
When you've gotta replace the entire liner, get rid of the old adhesive using dry cleaning solvent, NSN 6850-00-110-4498. Then apply the primer adhesive to the roof to make sure the liner stays put.

By the way, this solution will work for sagging liners in any basic HMMWV with a hard roof.

*Half-Mast*



# Rightsizing Trailer Safety Chains



Dear Editor,

We've received a lot of phone calls and email messages concerning safety chain connection issues with the FMTV tow vehicle and lunette trailers and dolly sets. The FMTV manufacturer increased the size of the FMTV's tow shackles. When they did this, the FMTV tow shackles fit the size and weight of the FMTV trailer. But, unfortunately, they don't fit the smaller hook size of the lunette trailers that must be towed.

We have developed a solution for the field. Here's what users should keep in mind when figuring out the correct length of lunette trailer safety chains:

FMTV trucks use tow shackles that are thicker and larger than the tow shackles on older 2 1/2- and 5-ton trucks. The safety chain hooks currently used on 1 1/2-ton and larger lunette trailers and dolly sets are not large enough to attach to the FMTV tow shackles. Therefore, you will need to use a larger safety chain hook that will attach to the FMTV tow shackles.

A second problem is that current production FMTV trucks now have the pintle extended eight inches to the rear from where the earlier FMTV pintles were mounted in relationship to the tow shackles. The safety chains will be too short, so you'll need to make them longer.

PS MORE

These steps will ensure that the trailer safety chains are the right size:

1. Remove the current hook and connecting link from the forward end of the trailer safety chains.

2. Couple the trailer to the FMTV at a 45-degree angle.

3. Attach the new safety chain hook to the FMTV tow shackle opposite the trailer angle.

4. Cross the safety chain under the trailer tongue. Then pull the end of the chain and eye or clevis end of the new hook toward each other.

5. Measure the distance between the eye or clevis of the hook and the end of the safety chain. Add the length of one more chain link. That will be the cut-length for the extension chain.

6. The connecting link joining the  $\frac{3}{8}$ -in extended chain to the original  $\frac{3}{8}$ -in chain will add the correct amount of slack to the safety chain without its being too long or too short. The same thing applies to the  $\frac{1}{2}$ -in hook, two connecting links and extension chains.

If your towing vehicle is an FMTV and your lunette trailer or dolly set has a  $\frac{3}{8}$ -in safety chain, use these materials:



Hook, NSN 4030-01-501-6946



Chain, NSN 4010-00-286-5645

Length of chain extension to be determined by user



Alternate  $\frac{3}{8}$ -in connecting link,  
NSN 4010-01-379-0918



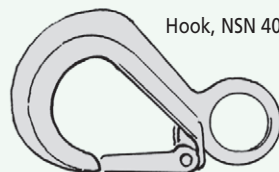
Existing chain



$\frac{3}{8}$ -in connecting link,  
NSN 4010-01-041-9751

Note that if you have an M105A3, M101A2 or -A3, or a lunette trailer with a surge brake device, you have to adjust the length of the breakaway cable/chain. Make it a bit shorter than the safety chains. Then if the trailer disconnects from the tow pintle, the breakaway cable/chain will fully actuate the trailer brakes before the slack in the safety chains is taken up.

If your towing vehicle is an FMTV and your lunette trailer or dolly set has a  $\frac{1}{2}$ -in safety chain, use these materials:



Hook, NSN 4030-01-531-2978



$\frac{1}{2}$ -in connecting link,  
NSN 4010-01-344-9148



Chain, NSN 4010-00-149-5584

Length of chain extension to be determined by user



Alternate  $\frac{1}{2}$ -in connecting link,  
NSN 4010-00-165-5607



Existing chain



$\frac{1}{2}$ -in connecting link,  
NSN 4010-01-344-9148

Note that when attaching to a truck that does not have the extended pintle, you will need to shorten the trailer safety chains so that they are not too long and drag or get caught on underbrush, commo wire or other hazards. One way is to twist the chain several times to take up the slack.

By the way, all but one model lunette trailer and dolly set have  $\frac{3}{8}$ -in safety chains. Only the M345 model has  $\frac{1}{2}$ -in safety chains.

All material listed in our solution have load limits that are as good as the original equipment safety chains. We've confirmed that both listed hooks fit the current FMTV tow shackles. Plus, all listed materials are available through the Army's supply system. Engineering, safety and the FMTV team have all approved this solution.

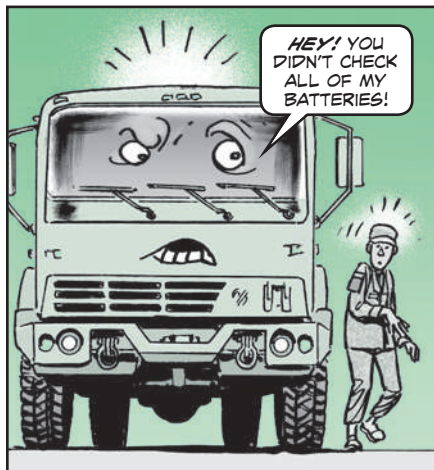
Note that all other guidance and previous PS Magazine articles related to lunette trailer safety chain length and hook size while FMTVs are the towing vehicle don't apply now. Disregard them and follow this guidance instead.

Gary Mitchell  
Trailer Equipment Specialist  
TACOM-Warren

*Editor's note: You've just hooked our readers up with some good information. Thanks, Gary.*



# Mirror Makes it Easy



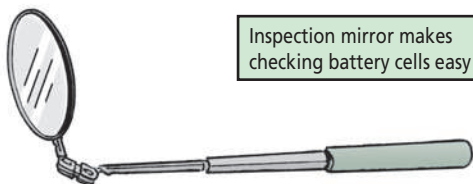
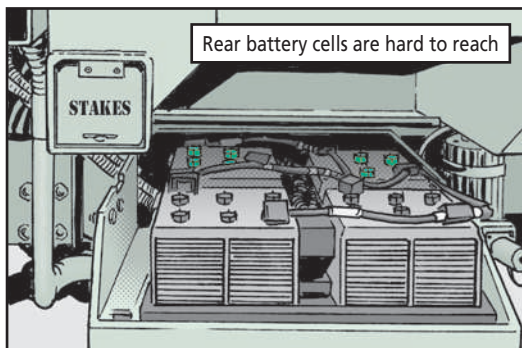
Checking the batteries on your FMTV is easy—until you get to the rear ones.

The overhang of the truck bed makes those older kind of batteries hard to reach. And when it comes to checking electrolyte levels, it's darn near impossible!

As a result, those rear battery cells are going unchecked. Pretty soon, they're dry as a bone and completely powerless.

Keep those batteries in business by investing \$4 in a small inspection mirror, NSN 5120-01-278-8257. The mirror handle telescopes up to 15 inches and includes a 2 1/2-in mirror that swivels in any direction.

Add a flashlight and checking those battery cells suddenly becomes easy. You can also use the mirror to check for battery cracks and leaks.

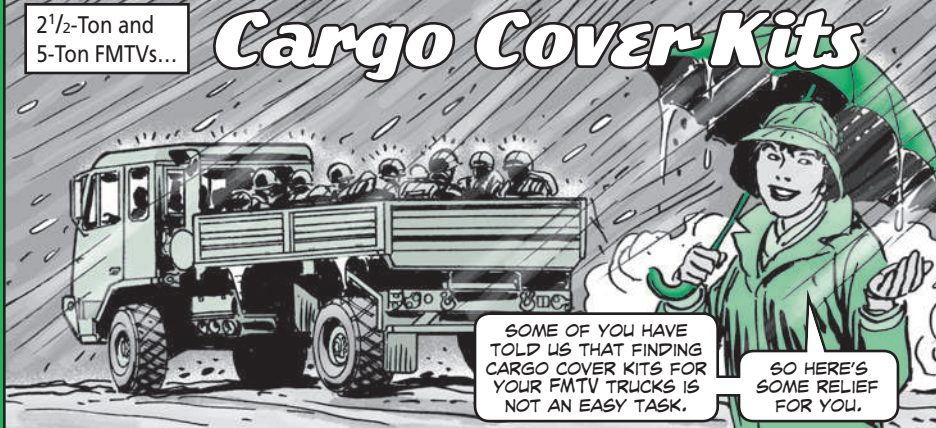


Inspection mirror makes checking battery cells easy



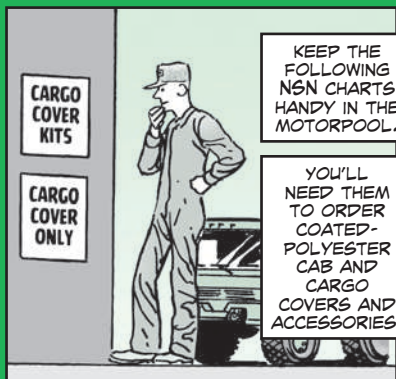
2½-Ton and  
5-Ton FMTVs...

# Cargo Cover Kits



SOME OF YOU HAVE  
TOLD US THAT FINDING  
CARGO COVER KITS FOR  
YOUR FMTV TRUCKS IS  
NOT AN EASY TASK.

SO HERE'S  
SOME RELIEF  
FOR YOU.



KEEP THE  
FOLLOWING  
NSN CHARTS  
HANDY IN THE  
MOTORPOOL.

YOU'LL  
NEED THEM  
TO ORDER  
COATED-  
POLYESTER  
CAB AND  
CARGO  
COVERS AND  
ACCESSORIES.



HERE ARE THE  
NEW LIGHTWEIGHT  
COVER KITS, WITH  
ALL HARDWARE  
INCLUDED...

Cargo Cover Kits		
Vehicle	NSN 2540-01	Color
2½-Ton	-539-3903	Arctic
	-539-3626	Woodland Camo
	-539-3936	Tan
5-Ton	-539-3915	Arctic
	-539-3647	Woodland Camo
	-539-3946	Tan
5-Ton (LWB)	-539-3909	Arctic
	-539-3946	Woodland Camo
	-539-3588	Tan
5-Ton (Dump)	-539-3631	Woodland Camo
	-539-3638	Tan

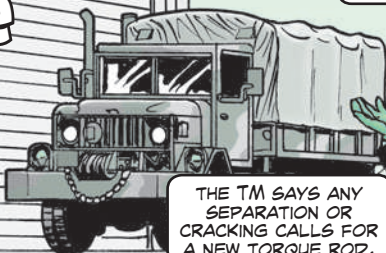
Cargo Cover Only		
Vehicle	NSN 2540-01	Color
2½-Ton	-460-3487	Arctic
	-387-3987	Woodland Camo
	-460-2337	Tan
5-Ton	-460-0898	Arctic
	-472-5091	Woodland Camo
	-460-1075	Tan
5-Ton (LWB)	-460-0428	Arctic
	-393-0950	Woodland Camo
	-479-5022	Tan
5-Ton (Dump)	PN 12420313-006	Woodland Camo
	-479-5026	Tan

2 1/2-, 5-ton Trucks...

LONGER LASTING PARTS  
MAKE OUR LIVES EASIER.

THAT GOES FOR THE TORQUE  
RODS ON YOUR 2 1/2- AND  
5-TON TRUCKS, TOO.

# Torque Rod Check



THE TM SAYS ANY  
SEPARATION OR  
CRACKING CALLS FOR  
A NEW TORQUE ROD.

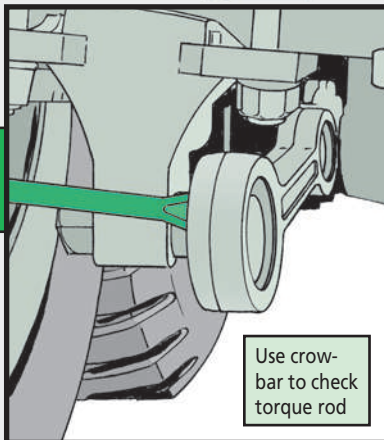
BUT IT'S NOT HOW  
THE ROD LOOKS, IT'S  
HOW IT WORKS.



HERE'S HOW TO  
TELL IF A ROD IS  
GOOD TO GO...

- Place the flat end of a 3-ft crowbar or pinch bar between the torque rod and the mounting bracket.

- Push the bar sideways so that the hook end moves four to six inches.
- Release the pressure on the crowbar or pinch bar.
- If the torque rod returns to its original position, keep using it. If it doesn't, replace it.



Use crow-  
bar to check  
torque rod

HMMWVs...

## Replacement Seat Clamp Found

Dear Half-Mast,

My Army National Guard unit has a few HMMWVs with broken rear seat clamps. I tried to order replacements using NSN 5340-01-197-1294, but FED LOG shows that item as discontinued. What's a good replacement?

SGT N.G.

Dear Sergeant N.G.,

Glad to help. The NSN you used to get the rear seat clamp has been replaced with NSN 5340-01-408-8508. You should see this NSN in a future TM update. Make a note until that happens.

*Half-Mast*

# HOLE HASSLE

YOU MEAN  
I'VE GOT  
PUNCH NEW  
HOLES IN *ALL*  
OF THESE?



Dear Half-Mast,

My unit recently received logbook-sized HMMWV operator's manuals, TM 9-2320-280-10, with only three holes punched. In the past, logbook-sized TMs were punched with five holes.

With five holes, the TMs could be placed in a binder made for logbooks or in one for full-sized manuals. Logbooks with only three holes won't fit in the logbook-sized binders.

We had two solutions to fix this problem. We could either take our TM apart and punch the missing holes to make it fit the log binder, a time issue. Or we could buy new binders that fit the logbooks with three holes, a money issue.

To avoid having to do this in the future, can we just get the TMs with five holes punched?

SGT T.K.D.

Dear Sergeant T.K.D.,

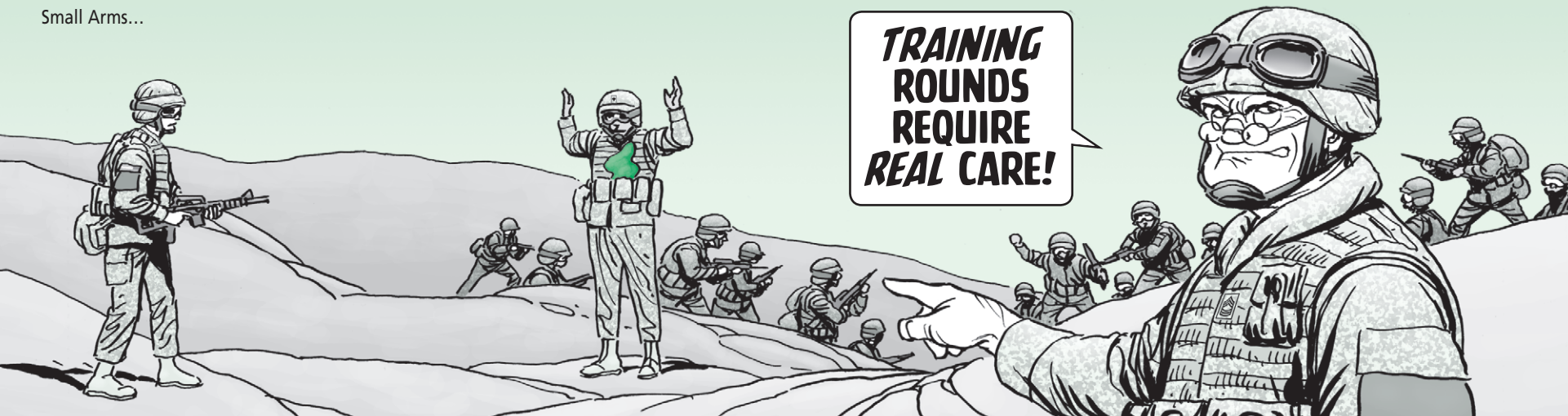
It's possible. What you experienced happened because the Army decided to save money by punching only three holes in your TMs.

A unit can't order a TM with five holes, but the managing command can request more holes on their DA Form 260, Request for Publishing. The Army Publishing Directorate will honor their request. But this won't happen automatically.

Submit a DA Form 2028, Recommended Changes to Publications and Blank Forms, requesting the five holes that you need in your TM and changes. Then the command can request those extra two holes for future prints.

*Half-Mast*





**I**n order to help soldiers train as realistically as possible, the Army is developing the close combat mission capability kit (CCMCK).

The CCMCK uses man-marker munitions that are filled with wax. When the munition hits a target, the wax splatters. You know instantly if your aim has been true or if you yourself have been hit.

If your unit has been training with off-the-shelf CCMCKs, there are a few things you need to remember.

Just because the CCMCK rounds are for training doesn't mean they don't require real care. First and most important, these rounds can injure if they hit a person in the head and they're not wearing protective equipment. Soldiers training with CCMCK should wear Army-approved SWD (sand, wind and dust) goggles, their helmets, and a face mask. When the CCMCK is fielded, it will include a special face mask for additional protection.

Just like with regular rounds, you need to remember PM when firing CCMCK rounds. Before firing, thoroughly clean your weapon like it says in your -10 TM.

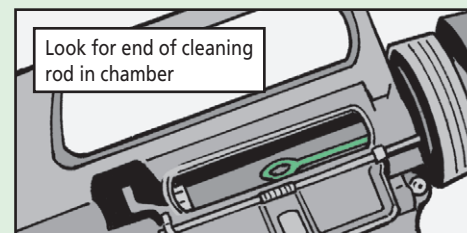
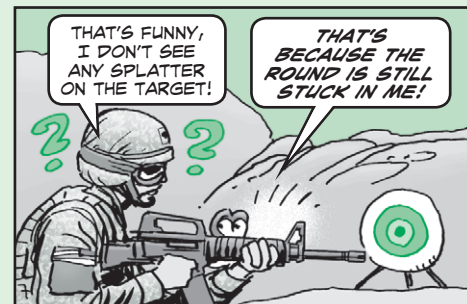


After you have fired a basic load (210 rounds), you need to thoroughly clean your weapon again, paying special attention to the chamber.

Be on the lookout for stuck rounds while firing. If you're not seeing any wax splatter when you fire at a target or if your weapon makes an unusual popping noise, you may have a stuck round.

Carefully follow the procedure in the -10 TM to check for a stuck round. Run a cleaning or clearing rod all the way from the muzzle to the chamber and look for the end of the rod in the chamber. If you don't see it, you have a stuck round.

If your weapon can't be cleared on the range, take it to your armorer. Every soldier should make sure they have no obstructions in the barrel before they turn their weapons back in to the arms room.



IF YOU HAVE ANY QUESTIONS ABOUT CCMCK, CONTACT TACOM-ROCK ISLAND'S ERNEST SEWELL AT DSN 793-0640, (309) 782-0640, OR EMAIL: [ernest.sewell@us.army.mil](mailto:ernest.sewell@us.army.mil)



# Keeping FN 303 Non- lethal

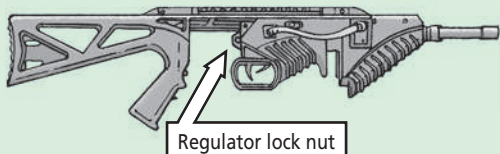


THE FN 303 LAUNCHER IS SUPPOSED TO BE A NON-LETHAL FIRING DEVICE.

BUT IT CAN BECOME LETHAL IF YOU FORGET A COUPLE OF SAFETY RULES...

**NEVER MESS WITH THE REGULATOR LOCK NUT.**

THAT CAN INCREASE THE VELOCITY OF THE FN 303'S PROJECTILE ENOUGH THAT IT CAN KILL SOMEBODY.



**NEVER AIM THE FN 303 AT SOMEBODY'S NECK OR HEAD.**

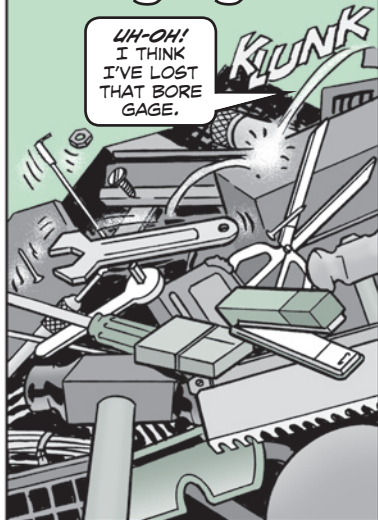
IF AN FN 303 PROJECTILE HITS A PERSON IN THE NECK OR HEAD, IT CAN INJURE AND EVEN KILL HIM.



IF YOU HAVE QUESTIONS ABOUT HOW TO USE AND MAINTAIN THE FN 303, SEE TM 9-1095-212-13&P.

IT'S ON THE ETM WEBSITE:  
<https://www.logsa.army.mil/etms/welcome.cfm>

# Gaging the Right Protection



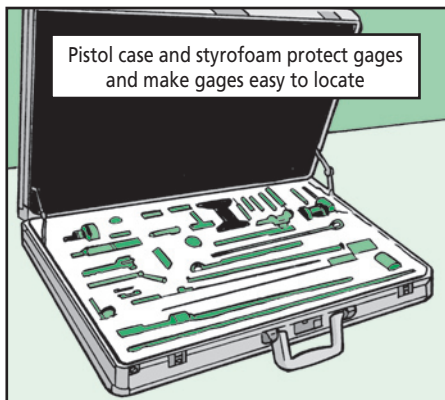
Dear Editor,

Some of the gages repairers use in their work are very precise—and very expensive. Often there is no good, ready-made way to store or transport them.

We make sure our gages stay protected with a pistol case and styrofoam. You can buy a good pistol case at most sporting goods stores for around \$40. Styrofoam is available at large discount stores.

Cut the styrofoam to fit snugly in the pistol case. Then use a hobby knife to trace slots in the styrofoam for each gage. Write the gage's name on the styrofoam below each gage.

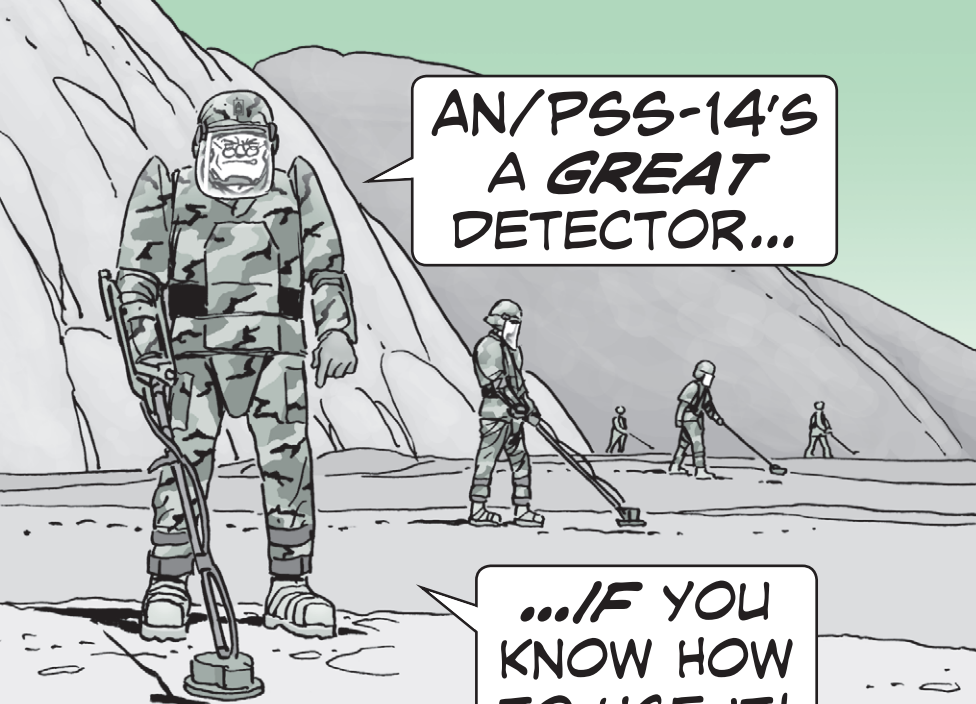
Now you'll be able to safely transport the gages and quickly find them when needed.



Jim Smith  
DOL  
Ft Carson, CO

*Editor's note: We gage your suggestion to be a good one, Jim. Thanks.*





AN/PSS-14'S  
A *GREAT*  
DETECTOR...

...IF YOU  
KNOW HOW  
TO USE IT!

THE NEW AN/PSS-14  
MINE DETECTOR IS A  
BIG JUMP UP FROM  
THE OLD AN/PSS-12.

THE -12 COULD  
ONLY DETECT  
METAL OBJECTS  
IN THE GROUND.

THE -14 CAN ACTUALLY  
TELL WHICH METAL  
OBJECTS ARE MINES.

But to safely and effectively operate the AN/PSS-14, you have to practice. Some soldiers' skills can diminish in as little as 60 days after completing the operator's course. That's why commanders need to conduct refresher training as often as possible and at a minimum check operator skills before a mine clearing mission.

To help you learn how to use the AN/PSS-14, the Army has set up a program modeled after the Unit Master Driver Program that is outlined in AR 600-55. First comes new equipment training, which is supported by the AN/PSS-14 Program Office and coordinated with the local installation force modernization officer.

Sustainment training is handled by unit master trainers (UMT). UMTs are NCOs (E5 and above) who have passed the operator course and taken the additional Unit Master Trainer Course. UMTs not only train new operators, but re-validate their skills every six months. UMTs are a commander's key to ensuring a unit's mine detecting capability.

If your unit still has the old AN/PSS-12, you will likely receive AN/PSS-14s soon. If you already have the AN/PSS-14, you need UMTs. Contact John Sullivan to set up a UMT course at a time and place convenient to your unit. Call him at (573) 563-7646, DSN 676-7646, or email [john.b.sullivan@us.army.mil](mailto:john.b.sullivan@us.army.mil)

If you've been trained as a UMT, make sure your commander knows it. When the updated AR 600-55 hits the street with its addition of the UMT program, your unit will need you to set up the AN/PSS-14 training course. If you need help doing that, contact Sullivan.

SEE...

## CLOGGED FILTERS?

OPERATORS, ONE FILTER CAN RELIEVE  
YOUR STRESS WHEN EXCAVATOR TURNS  
BECOME HARD OR ERRATIC.

TOUGH STEERING USUALLY MEANS  
MY POWER STEERING FLUID IS LOW  
OR THE STEERING PUMP'S FILTER  
ELEMENT IS CLOGGED.

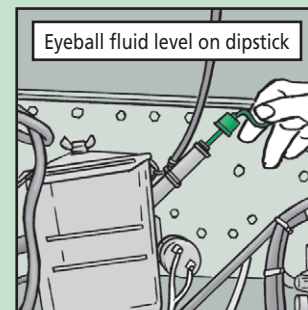


So eyeball the fluid level on the dipstick. Make sure it's between the ADD and FULL marks.

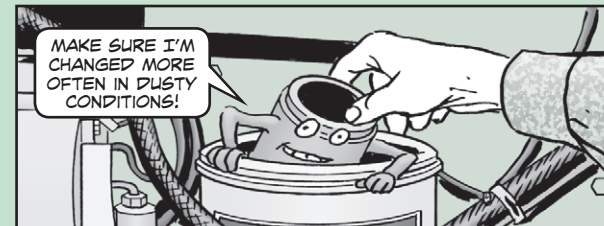
In dusty conditions, the pump's filter element can clog and starve the system for oil—which means tough steering!

Make sure your mechanic replaces the pump's filter element, NSN 2910-01-224-5509, during scheduled service. It may need changing more often in dusty conditions.

Eyeball fluid level on dipstick



MAKE SURE I'M  
CHANGED MORE  
OFTEN IN DUSTY  
CONDITIONS!



IHMEE...

# EXCAVATING IN THE COLD

HERE ARE SOME  
COLD WEATHER  
STARTING TIPS  
TO KEEP IN MIND!

Read the interim high mobility engineer excavators (IHMEE) operator's manual before the snow flies, and keep these cold weather starting tips in mind for smooth running.

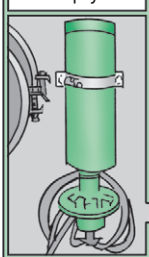
## Rough Start?

Your excavator could be hard to start when the temperature drops below freezing.

Some IHMEEs have an ether canister that automatically injects ether into the engine for cold weather starting.

If your excavator is hard to start, chances are the ether canister is empty. Have your mechanic check it out to be sure.

Ether canister  
empty?



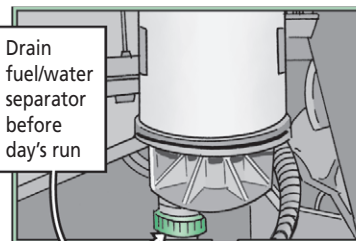
## Drain Out Water

Changes in temperature form condensation in the excavator's fuel tank. That means you have to drain the fuel/water separator before the day's run.

Not draining the separator will leave water and crud in the vehicle's fuel system. Then the engine runs rough, or not at all.

Open the separator (located on the engine's roadside) by turning its drain-cock counterclockwise. Use a clear container to catch the fuel. If the fuel is clear, close the valve and go to work. If it's cloudy, close the valve and tell your mechanic. Clean up any mess and dispose of rags properly.

Drain  
fuel/water  
separator  
before  
day's run

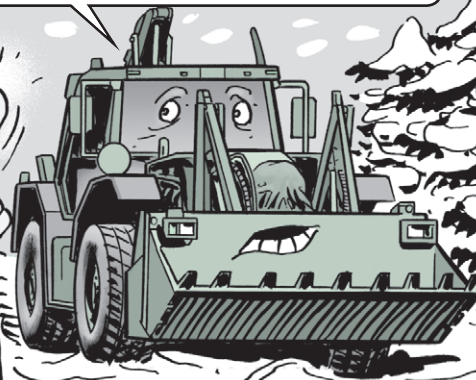


STORE DRAINED FUEL IN AN  
APPROVED HAZARDOUS WASTE  
CONTAINER. **NEVER** DUMP IT DOWN  
A DRAIN OR ON THE GROUND.



IHMEE...

**KEEP THAT HEAVY  
FINGER OFF MY  
STARTER SWITCH!**



OPERATORS, TOO MANY  
INTERIM HIGH MOBILITY  
ENGINEER EXCAVATORS  
(IHMEE) ENGINE STARTERS  
ARE ENDING UP AT SUPPORT  
FOR SERVICE AND REPAIR.

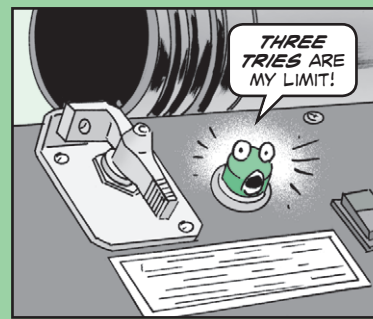
ALL IT TAKES IS ONE  
HEAVY FINGER STUCK ON  
THE STARTER SWITCH  
TO BURN OUT A GOOD  
STARTER MOTOR; PLAIN  
AND SIMPLE.

So, when you try to start your IHMEE engine, engage the starter, but after 15 seconds...

**STOP!**

Then give the starter at least two minutes to cool off before trying again.

If the IHMEE won't start after three tries, call it quits. Call in your mechanic to find out what's wrong.





## Automated Integrated Surveying Instrument...

WHY AREN'T  
YOU WORKING  
TODAY?

YOU'RE  
WAY OFF!

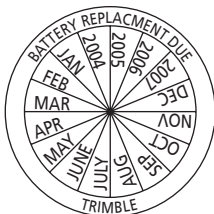
MY BATTERIES  
ARE GOING, GOING,  
ALMOST GONE.

I'M TOO WEAK  
TO SURVEY.

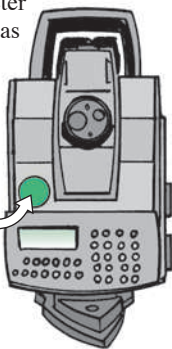
# Check Batteries Now!

**D**on't wait until you get to the field to find out if the internal batteries for your automated integrated surveying instrument (AISI) are working. Then it's too late to do anything about it. Check the batteries now. There are two ways to check:

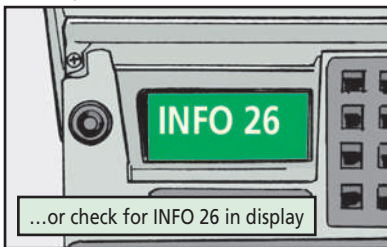
- Look at the Trimble Battery replacement due date sticker just below the distance meter head. If the due date has passed, you need new batteries.



Look at replacement due date sticker...



- If the sticker is missing, 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 memory and AISI failure.



...or check for INFO 26 in display

Unfortunately, you can't replace the batteries yourself. An authorized service center must do it.

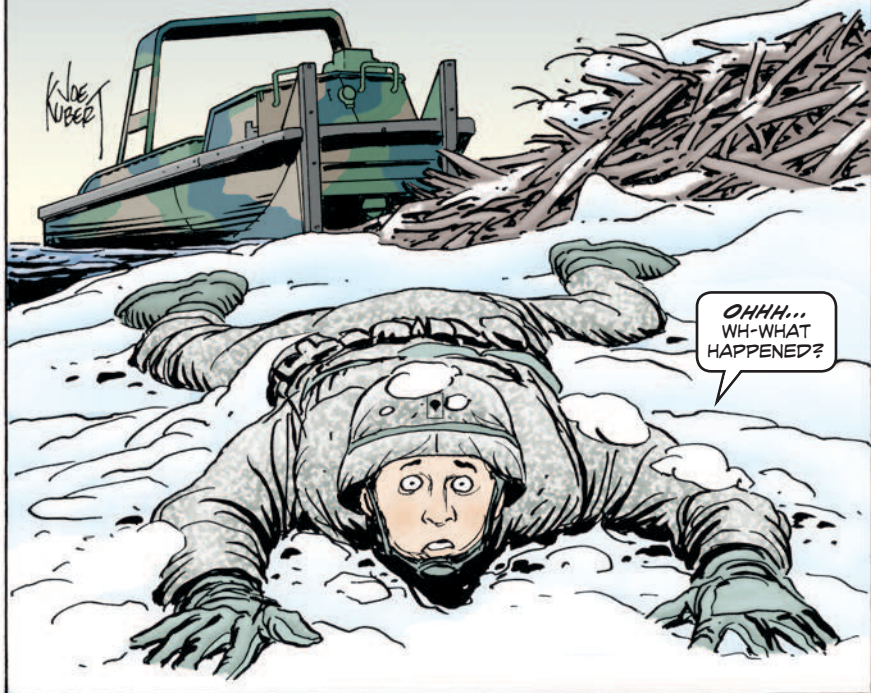
To get instructions and approval for free AISI battery replacement, contact CECOM's Danny Carter at DSN 987-5472, (732) 427-5472, or email:

[danny.carter3@us.army.mil](mailto:danny.carter3@us.army.mil)

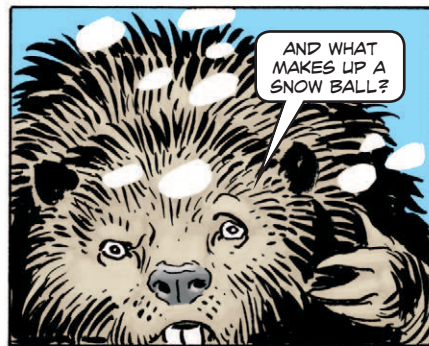
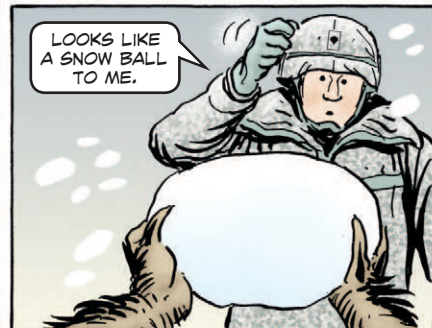
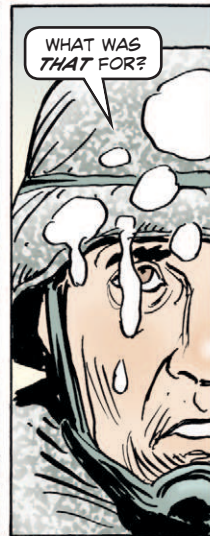
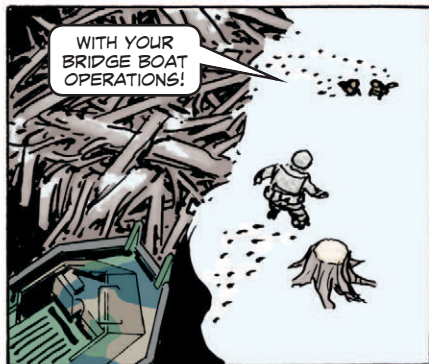
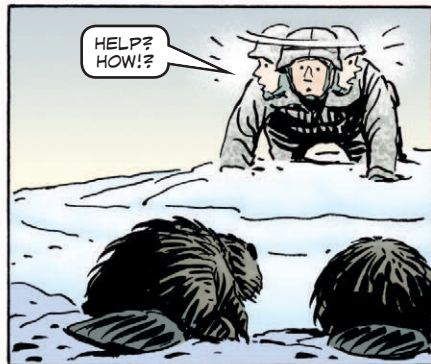
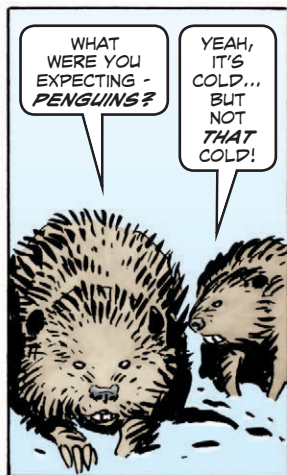
He will need the serial number of your AISI.



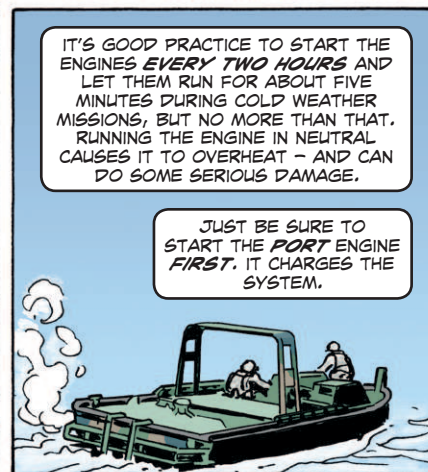
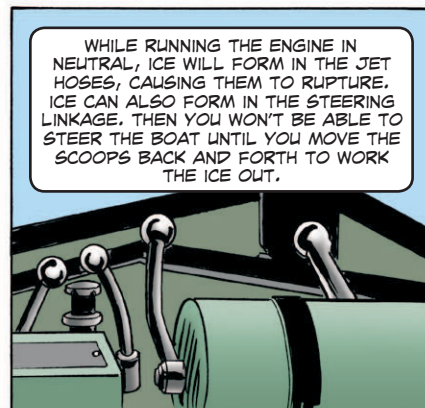
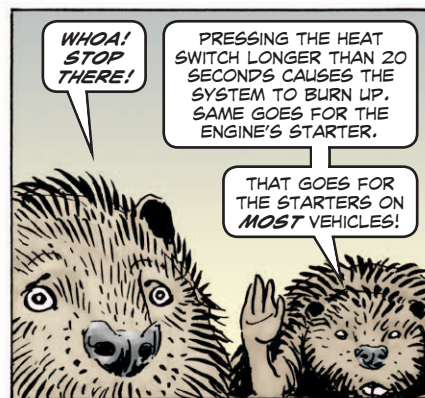
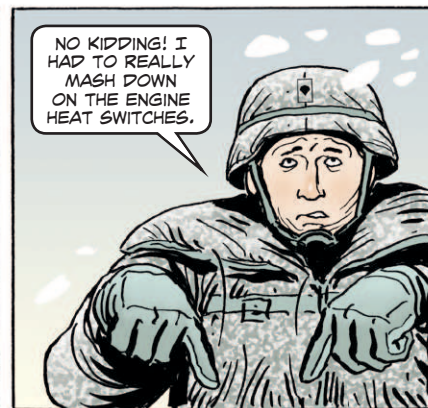
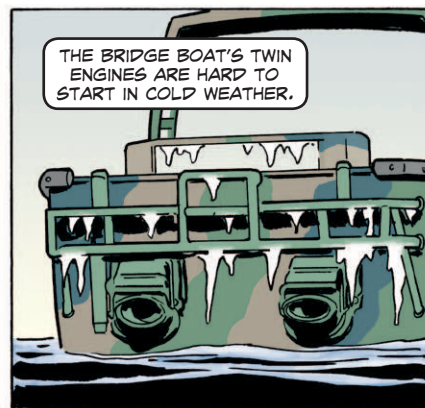
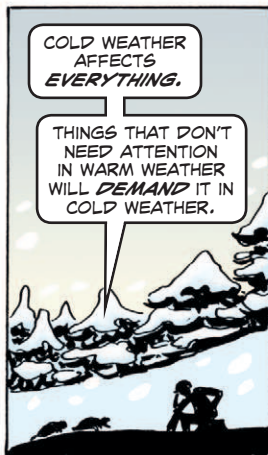
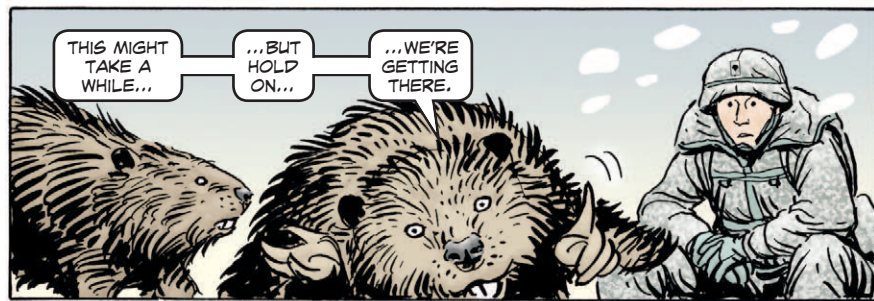
# When Conditions **CHANGE**



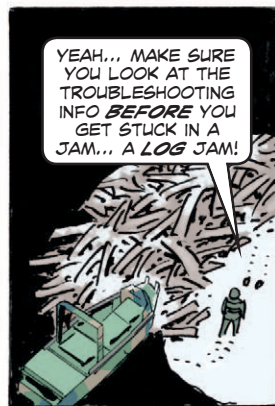
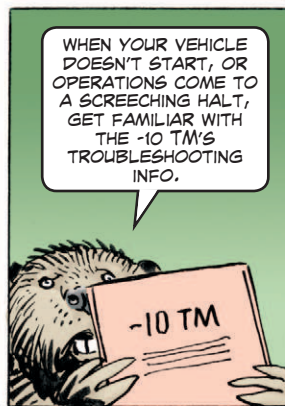
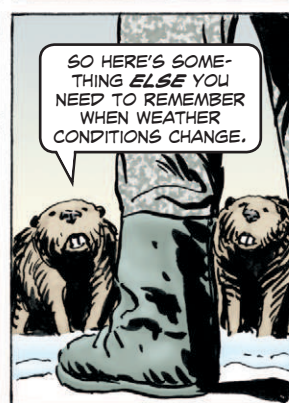
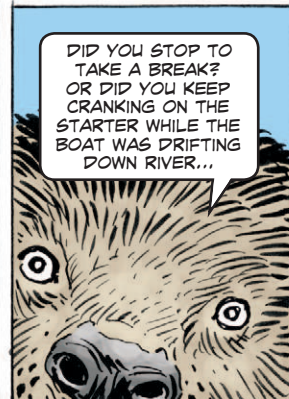
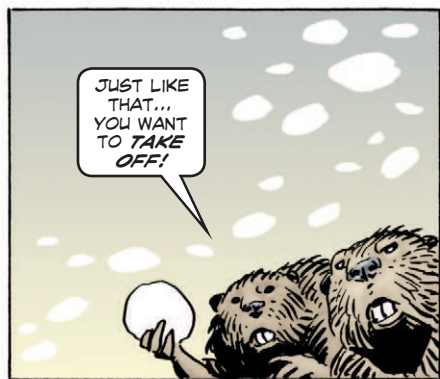
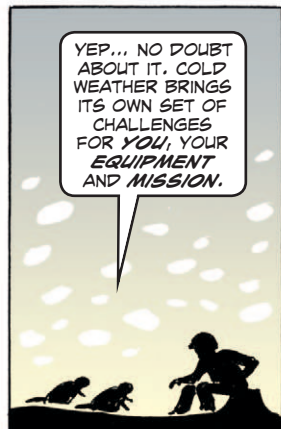
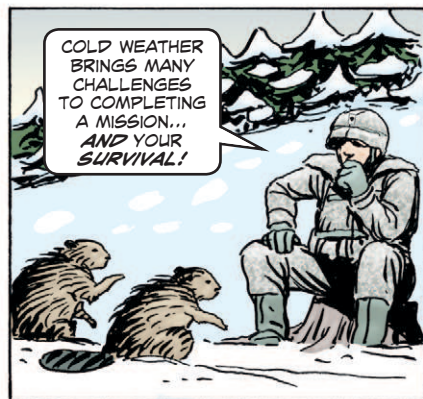
















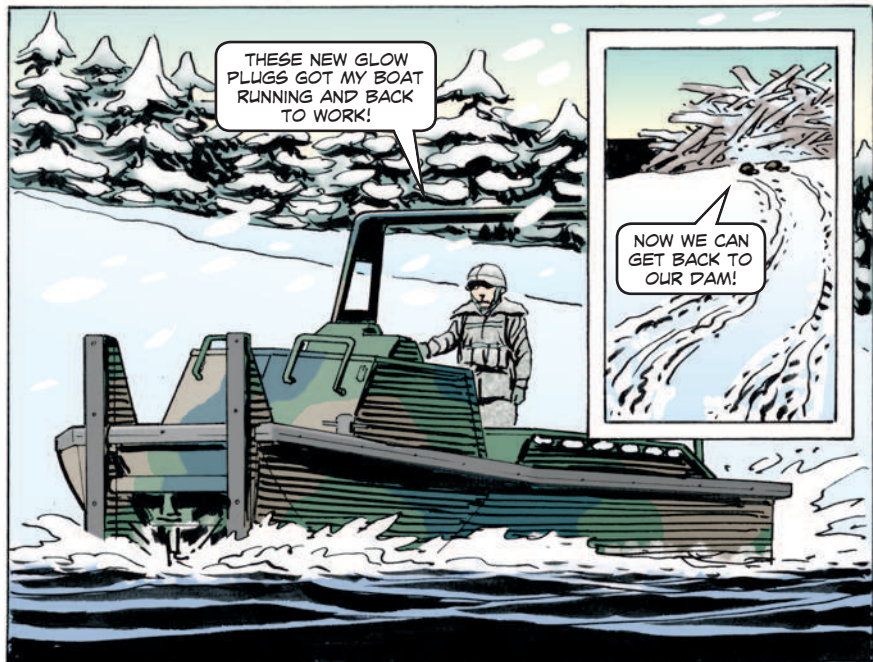
COLD WEATHER AND  
BURNED OUT GLOW  
PLUGS SEEM TO GO  
HAND-IN-HAND.



DO YOUR BRIDGE  
BOAT A FAVOR. KEEP  
EXTRA GLOW PLUGS  
HANDY. THEY'RE  
AVAILABLE WITH NSN  
2990-01-122-6328  
AND ARE SHOWN IN  
TM 5-1940-277-20P.



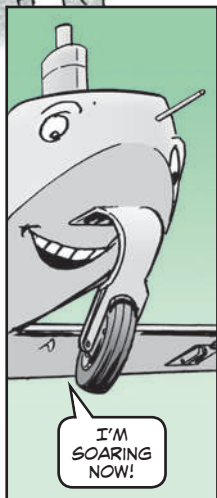
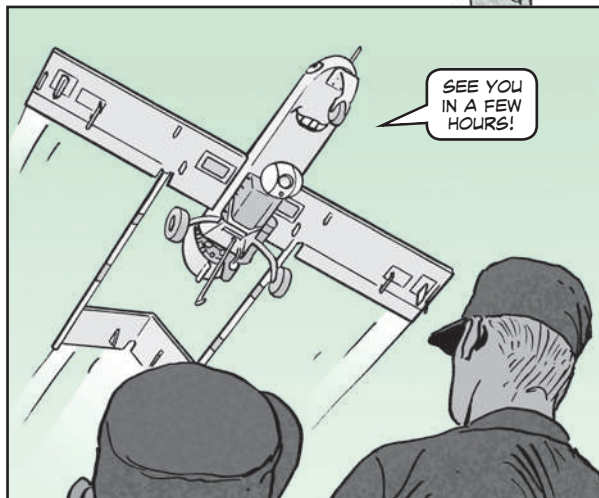
HOPE YOU'VE  
LEARNED A THING OR  
TWO TODAY. TAKE  
TIME TO SOLVE YOUR  
BOAT'S PM PROBLEMS  
***BEFORE*** ICE FORMS  
ON THE RIVER.



THESE NEW GLOW  
PLUGS GOT MY BOAT  
RUNNING AND BACK  
TO WORK!

NOW WE CAN  
GET BACK TO  
OUR DAM!

## Shadow Unmanned Aircraft System...

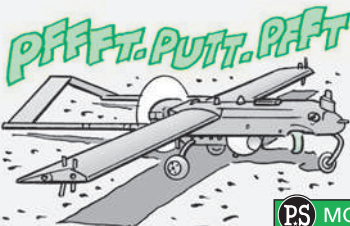


## Shadow Soars with PM

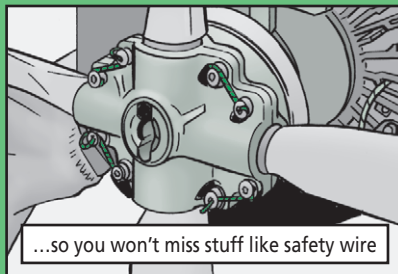
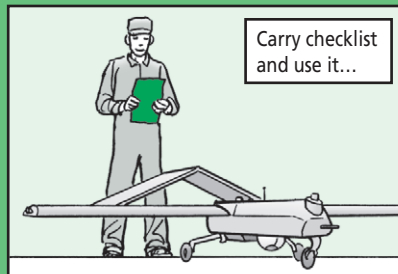
THE SHADOW UNMANNED AIRCRAFT SYSTEM WILL SOAR THROUGH ITS ASSIGNMENTS IF YOU DO YOUR PM DUTY.

OTHERWISE, THE SHADOW MAY NOT MAKE IT OFF THE GROUND.

DO YOUR DUTY WITH THESE TIPS...



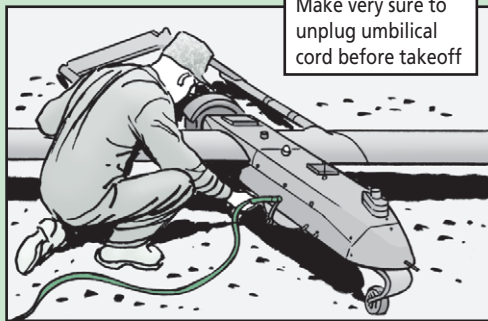
**Carry the preflight checklist and use it.** There are more than 50 different checks you need to make on the Shadow before it takes off. No matter how many times you've gone through the checklist, don't trust your memory to remember them all. It's too easy to forget to check something like torque specs or safety wire that could prove fatal in flight. Use the checklist to ensure you don't miss anything.



**Check the oil.** That's the most important of those 50 checks. The Shadow uses oil during flight and will often need oil before it flies again. Without enough oil, the Shadow may not make it back on its flight.

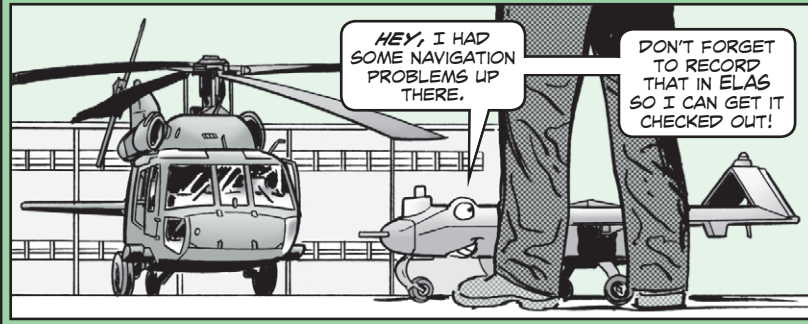


**Remember the umbilical cord.** It needs to be connected to power the Shadow for startup. But often in the hurry to launch, the umbilical cord is not disconnected after the Shadow engine is running. When the Shadow takes off, its umbilical cord connector is ripped out. So double check that the cord is disconnected before you send the Shadow down the runway.

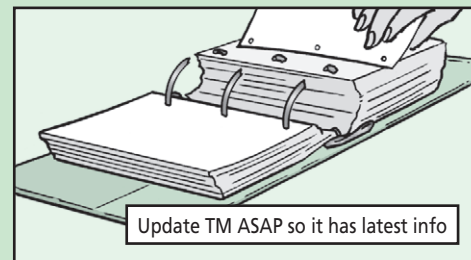


**Communicate.** The operator and maintainer need to communicate as they prepare for launch, especially since the operator is doing his job remotely, away from the plane. As the operator and maintainer go through their separate preflight checklists, they need to tell each other what they're doing. What is especially important is that the operator verifies with the maintainer that the Shadow is at full throttle for takeoff. If it's at idle, that won't be much of a takeoff.

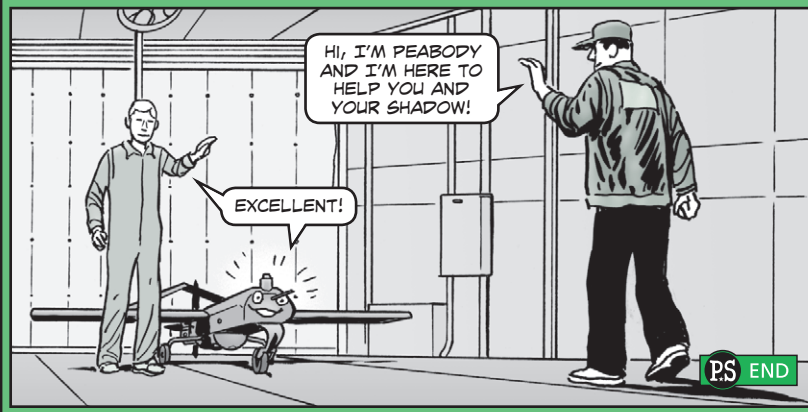
**Keep up with ELAS (Enhanced Logbook Automation System).** If you don't carefully record in the ELAS logbook items like what components were replaced or what failures occurred during flight, your maintainer doesn't find out and problems don't get checked out. Also, if inaccurate flight hours are recorded, scheduled maintenance won't be scheduled on time.



**Update TM and preflight checklist.** When you receive emails or other notices with changes to the TMs or checklist, make sure those changes are entered. The improvements those changes represent won't do any good if they're not entered in the TM and checklist.

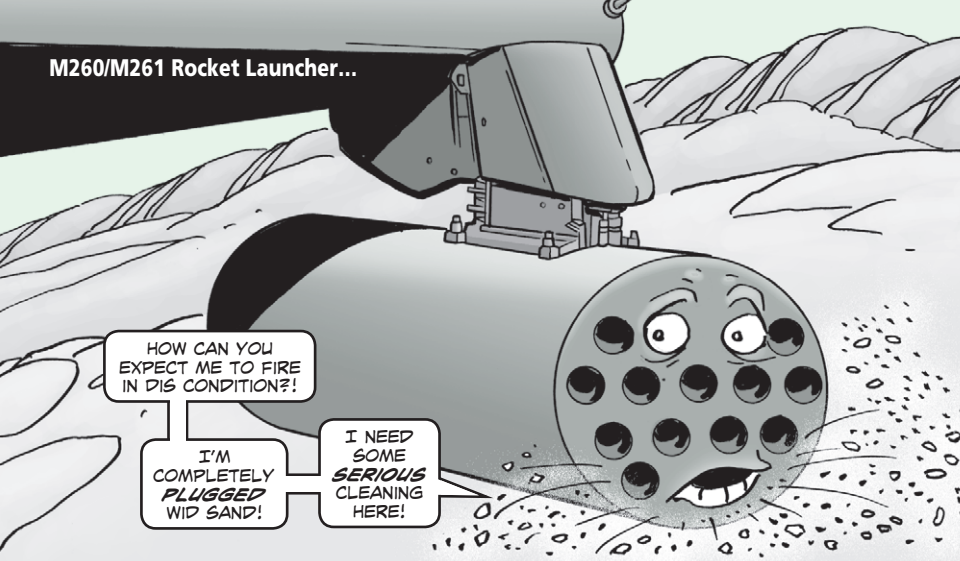


**Make friends with your field service rep.** He's the best friend you and your Shadow can have. It's his job to help you, so let him.





## M260/M261 Rocket Launcher...



## FIRING HELP IN THE DESERT

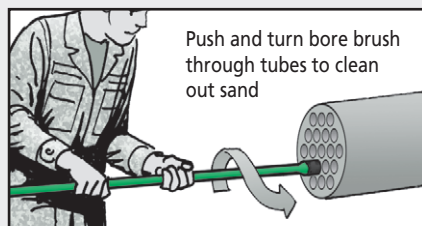
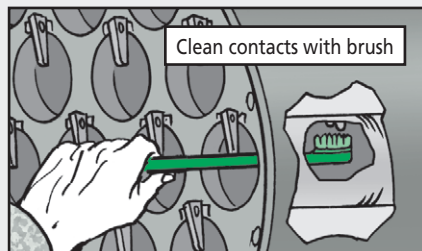
BECAUSE OF ALL THAT FINE IRAQI SAND, FIRING THE M260/M261 ROCKET LAUNCHER CAN BECOME A LAUNCH TO NOWHERE.

THE **ONLY** WAY TO PREVENT DESERT HANG-FIRES IS PM COMBINED WITH ELBOW GREASE.

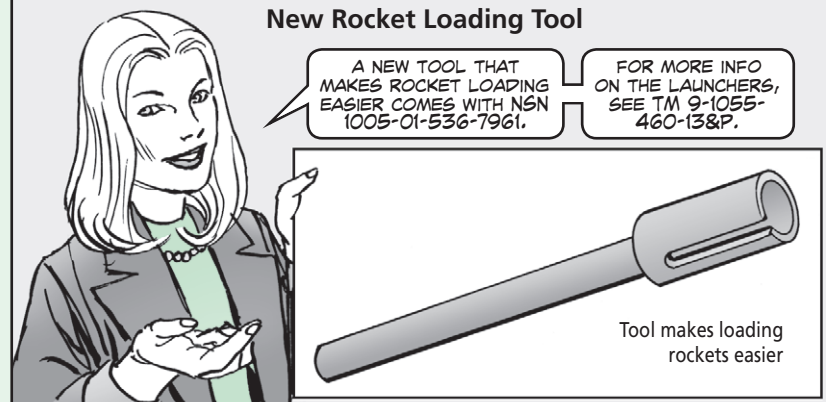
Sand fouls the launcher's electrical contacts and then the rocket doesn't have a good electrical connection. When doing PMCS, clean all firing contacts with a brush, NSN 7920-00-900-3577, to keep the electricity flowing.

Sand can plug the rocket tubes and cause the rockets to jam. During PMCS, swab out each tube with your bore brush and CLP. Low-pressure air is also good for getting the sand out of the tubes.

Use CLP sparingly on the launcher in the desert. It will attract more sand. Wipe out the inside of the tubes with a dry rag to remove CLP residue.



## New Rocket Loading Tool

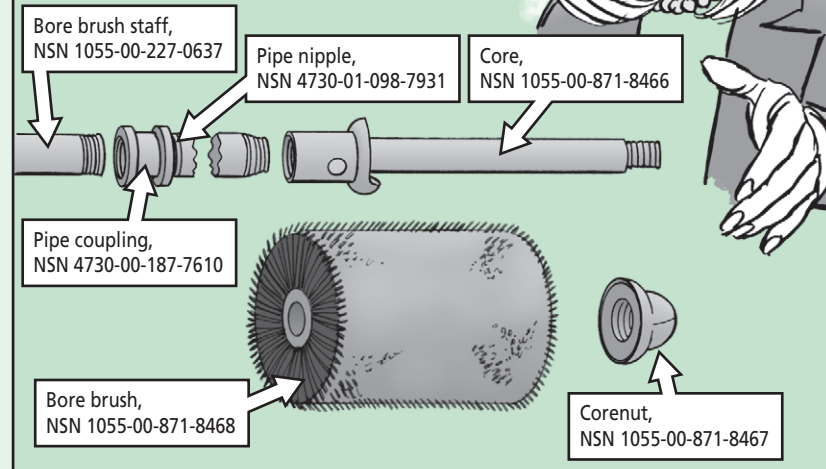


## Cleaning Kit Parts

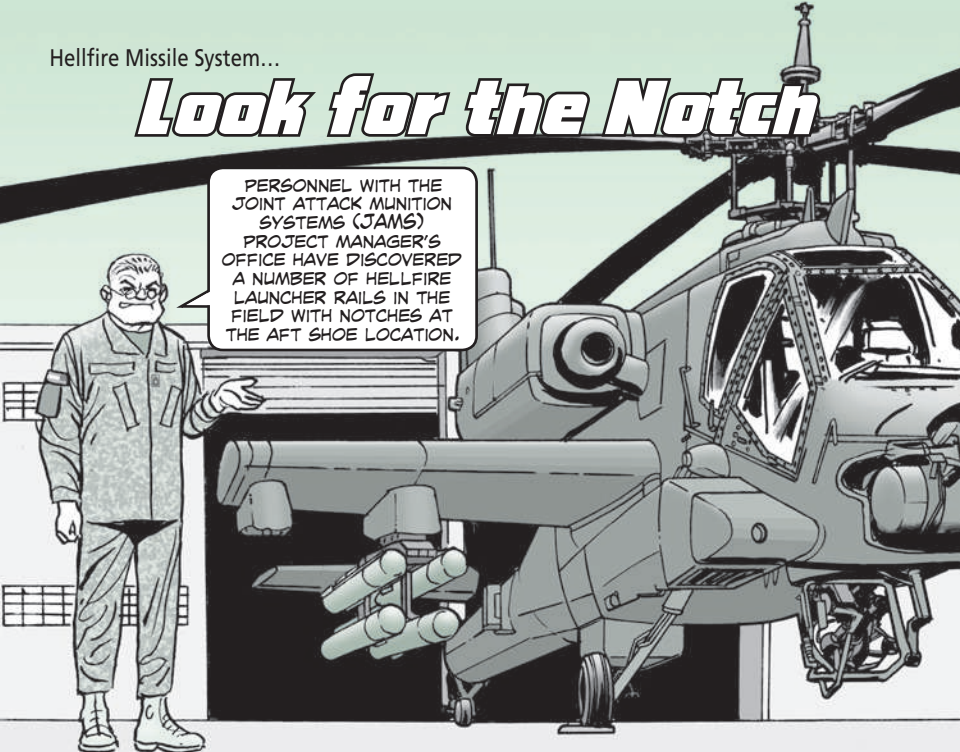
THE CLEANING KIT FOR THE M260/M261 ROCKET LAUNCHER IS NO LONGER AVAILABLE WITH NSN 1340-01-329-6839 BECAUSE THE KIT **ISN'T** A STOCKED ITEM.

BUT YOU CAN ORDER THE COMPONENTS OF THE KIT INDIVIDUALLY WITH THESE NSNs...

THESE ARE CALLED OUT IN THE SPECIAL TOOLS LIST IN FIG D-3 IN TM 9-1055-460-13&P.



# Look for the Notch



PERSONNEL WITH THE  
JOINT ATTACK MUNITION  
SYSTEMS (JAMS)  
PROJECT MANAGER'S  
OFFICE HAVE DISCOVERED  
A NUMBER OF HELLFIRE  
LAUNCHER RAILS IN THE  
FIELD WITH NOTCHES AT  
THE AFT SHOE LOCATION.

The notch is probably caused by wear from vibration and is usually the length of the aft missile shoe. It's possible the notch could cause a hangfire or loss of missile control after launch.

So Hellfire crews need to immediately check all their launcher rails for notching. Check not only the aft missile shoes area, but the entire rail for notches. If you spot any, replace the rail.

JAMS put out a safety of use message, AMCOM-08-003, on the launcher notching.

Look for notch along rails



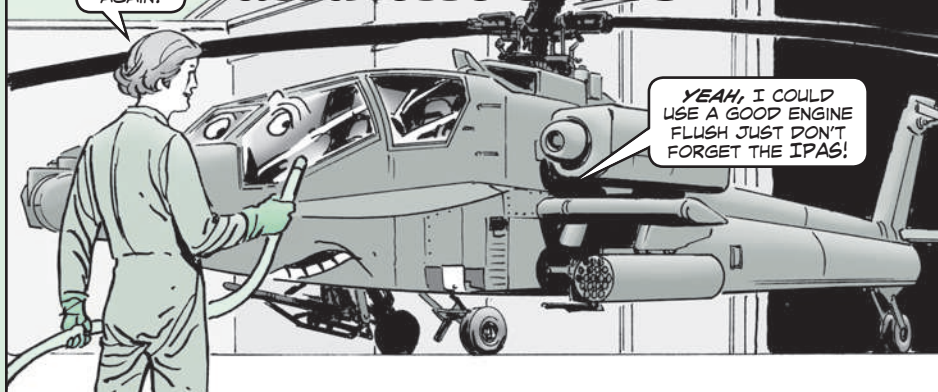
IF YOU FIND  
NOTCHED RAILS OR  
HAVE QUESTIONS,  
CONTACT PM JAMS  
WAR ROOM AT DSN  
788-0295, (256)  
842-0295,  
OR EMAIL:

[mslsjamswarroom@  
msl.army.mil](mailto:mslsjamswarroom@msl.army.mil)

# Engine Flushing and the IPAS

IT'S THAT TIME AGAIN!

YEAH, I COULD USE A GOOD ENGINE FLUSH JUST DON'T FORGET THE IPAS!



**M**echanics, you wouldn't think an engine flush could cause problems, right? But if you ignore any part of the flushing procedures spelled out in TM 1-1520-Longbow/Apache, you can experience engine and/or other problems.

An engine flush is required every 125 hours. That's good for the engine. But if you forget to disconnect the integrated pressure air system (IPAS) high pressure line from the engine before flushing, it could be a long day.

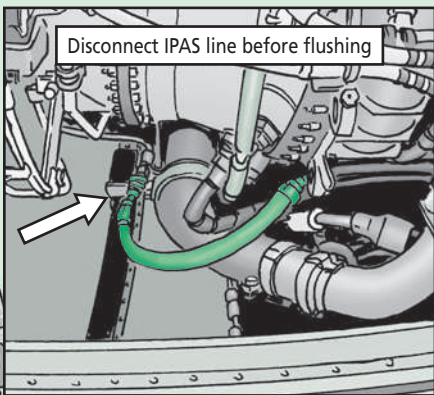
Forgetting to unhook the high pressure line could set up your IPAS system for trouble. Engine flush cleaning solvent sent through the high pressure line will drain from the engine and into the IPAS system. The engine cleaning solvent is corrosive and can cause damage to the pressure regulator, pressure relief valve, and IPAS lines. Eventually, cleaning solvent can work its way into the backside of the primary and utility manifolds. Then the hydraulic system will be in harm's way.

When the high pressure IPAS line is disconnected from the engine, the cleaning fluid is able to drain out of the engine properly.

ONCE YOU HAVE REMOVED THE HIGH PRESSURE IPAS LINE, FOLLOW THE FLUSHING PROCEDURES SPELLED OUT IN TM 1-1520-LONGBOW/APACHE OR CHAPTER 7 OF TM 1-2840-248-23.

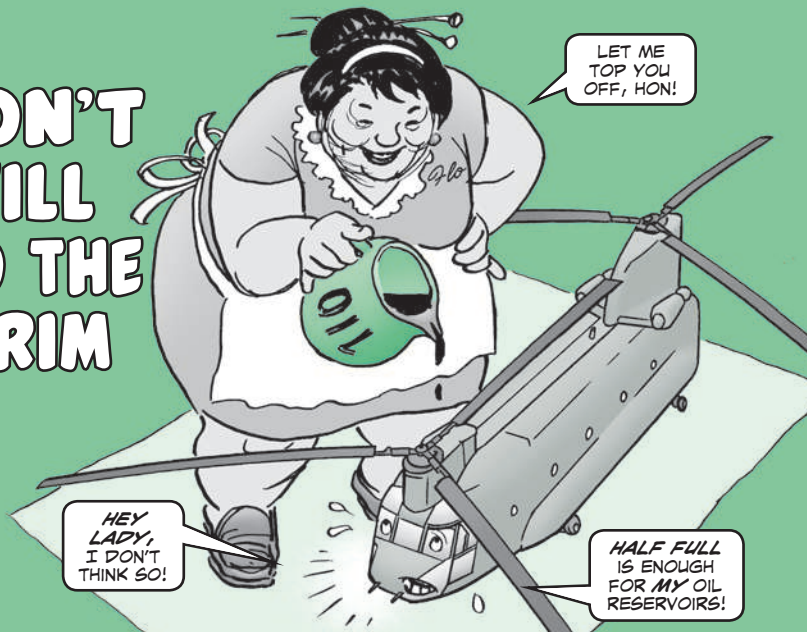


Disconnect IPAS line before flushing



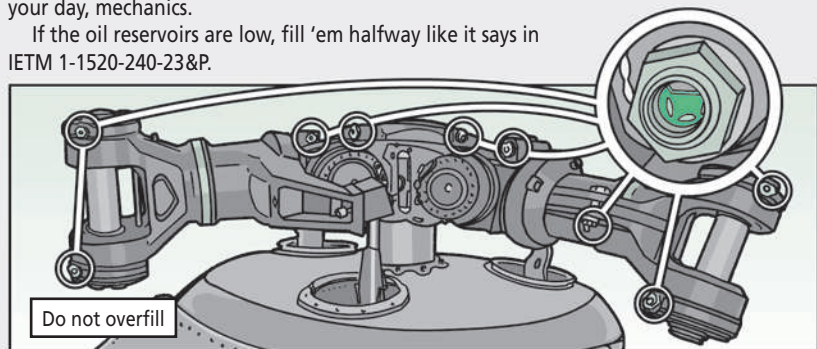


# DON'T FILL TO THE BRIM



A cup filled to the brim with good coffee may be a good start to a perfect day. But filling the forward and aft rotor head oil reservoirs to the brim on a Chinook can ruin the rest of your day, mechanics.

If the oil reservoirs are low, fill 'em halfway like it says in IETM 1-1520-240-23&P.



When aircraft broil under the hot sun on the flight line or in the desert, the oil heats up and expands. Full rotor head oil reservoirs leave no place for oil to expand.

So it blows out the rotor head oil seals. This creates an unsafe condition when flying with leaky rotor head oil seals and it also gets all over the top of your aircraft making the bird dangerously slippery for anyone topside. You also have a mess to clean up.

Before you service the rotor hub oil tank, the horizontal hinge pin oil tank or the vertical hinge pin oil tank, rotate the blades like the IETM says. Doing this levels off the oil in the sight indicators so you get the correct reading before adding oil.

*Disconnect BEFORE You Fold*

OK, WE'RE DONE FOR THE DAY, LET'S FOLD THIS OPERATION UP.

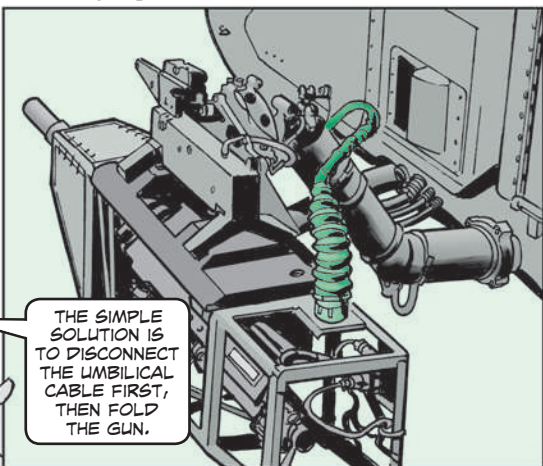
REMEMBER, DISCONNECT BEFORE YOU FOLD MY GUN.

CREW CHIEFS AND MECHANICS, SAVE YOURSELF THE TROUBLE OF GUN POD REPAIR.

DISCONNECT YOUR KIOWA WARRIOR'S .50-CAL GUN UMBILICAL CABLE **BEFORE** FOLDING THE GUN!

The cable is simply not long enough to cover the added distance needed when folding up the universal weapon's pylon. When folding the pylon, the cable can bend or snap off the bracket welded to the gun pod.

To make matters worse, the umbilical cable is usually wrapped around the pylon mounting arm to keep it out of harm's way. But that just makes the cable even shorter!

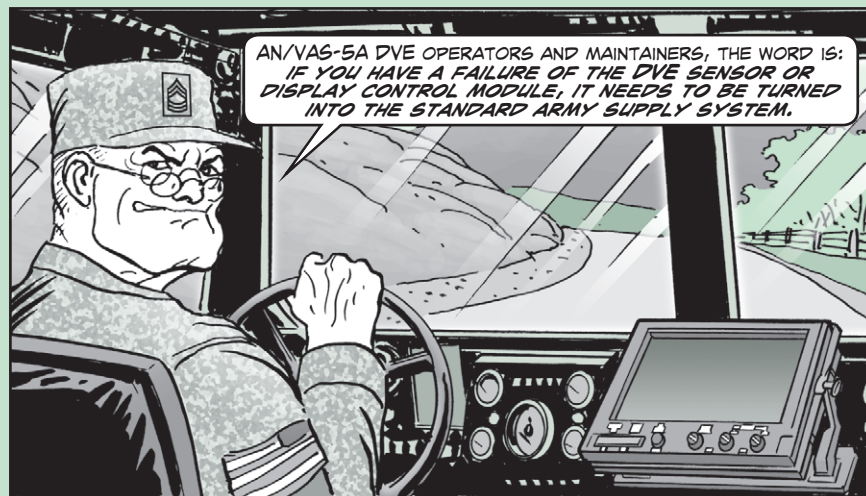


THE SIMPLE SOLUTION IS TO DISCONNECT THE UMBILICAL CABLE FIRST, THEN FOLD THE GUN.

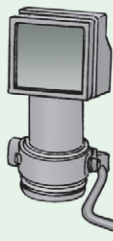




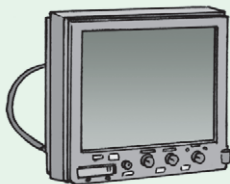
# Driver Vision Enhancer Contact Info



Failure of DVE sensor...



...or failure of display control  
module requires turn-in



UNITS NEED TO PROVIDE A  
DD FORM 1348 MILSTRIP  
REQUESTION FOR A  
REPLACEMENT.

THE CONFUSION LIES  
WITH THE DRAFT COPIES  
OF THE OPERATOR'S  
MANUAL AND PARTS TM.

THESE COPIES GAVE  
A WARRANTY TURN-IN  
PROCESS THAT WAS  
DIFFICULT TO ACHIEVE  
GIVEN THE CURRENT  
OCONUS MISSION.



SO, DISREGARD THE WARRANTY  
PROCEDURES IN THE DRAFT TM'S,  
TM 11-5855-311-12&P-1, -2 AND  
TM 8HG67-13&P-1, /2.

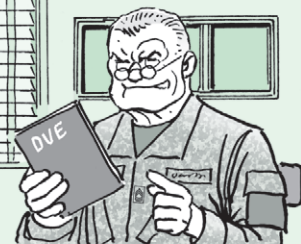


AND LOOK FOR FINAL COPIES  
OF THE CURRENT MANUALS  
AVAILABLE AS ETMS SOON.

ALSO AVAILABLE IS A DVE  
QUICK REFERENCE GUIDE  
FOR TROUBLESHOOTING.

COPIES OF THE REFERENCE GUIDE AND  
TMS CAN BE OBTAINED BY CONTACTING  
YOUR LOCAL SENSOR LAR, OR BY  
EMAILING THE ITEM MANAGER, ERIK  
SHAFFER, FOR ELECTRONIC COPIES:

[erik.shaffer1@us.army.mil](mailto:erik.shaffer1@us.army.mil)



ADDITIONALLY, INFORMATION ABOUT DVE  
SUPPORT THROUGH LARS AND FSRs IN  
IRAQ CAN BE OBTAINED BY CONTACTING  
PM/FLIR, DVE PROGRAM ILS MANAGER  
CURTIS ASHE AT DSN 654-2439 OR  
COMMERCIAL 703-704-2439.

OR EMAIL HIM:  
[curtis.ashe@us.army.mil](mailto:curtis.ashe@us.army.mil)

OR CONTACT SHAYLA  
MCCULLOUGH AT DSN 654-2724  
OR COMMERCIAL 703-704-2724.

OR EMAIL HER:  
[shayla.s.mccullough@us.army.mil](mailto:shayla.s.mccullough@us.army.mil)

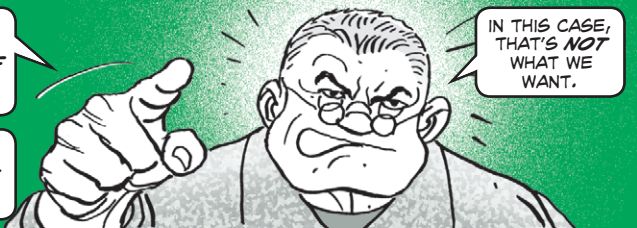


AND DON'T FORGET, IF YOU HAVE  
ANY ISSUES, ALWAYS CONTACT  
THE ITEM MANAGER FIRST, ERIK  
SHAFFER, AT DSN 992-8516 OR  
COMMERCIAL 732-532-8516.

OR EMAIL HIM  
AT THE EMAIL  
ADDRESS  
ABOVE.

ONE MORE NOTE,  
DO NOT RED  
TAG THE DCM IF  
THE SCREEN IS  
CRACKED.

DLA VIEWS RED  
TAGGED MATERIAL  
AS SCRAP  
MATERIAL.



IN THIS CASE,  
THAT'S *NOT*  
WHAT WE  
WANT.

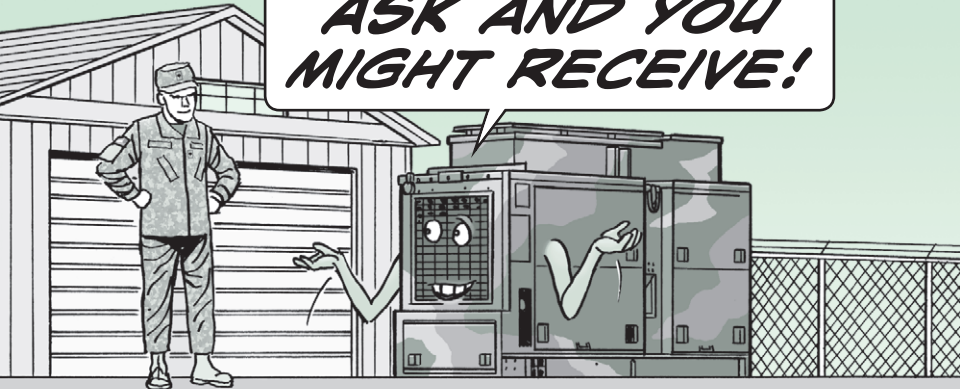
DAMAGED DCMs HAVE A NUMBER  
OF INTERNAL PARTS THE DEPOT CAN  
SALVAGE FOR FUTURE REPAIRS.

PLEASE TURN IN ALL NMC DCMs  
REGARDLESS OF CONDITION, AND  
ENSURE PACKING MATERIAL IS  
ADEQUATE TO PROTECT THE SCREENS  
FROM DAMAGE DURING SHIPMENT.





# ASK AND YOU MIGHT RECEIVE!



Dear Half-Mast,

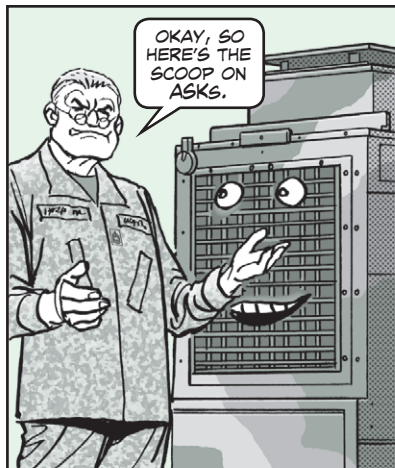
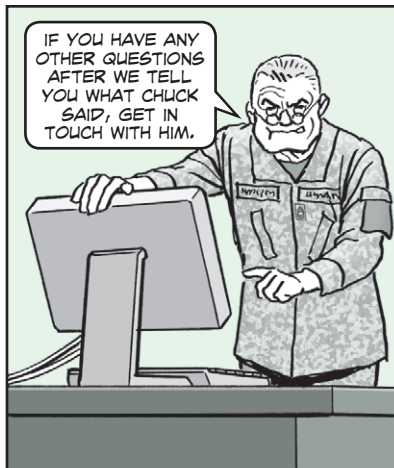
We're looking for some replacement parts for the acoustic suppression kits (ASKs) on our small Mil-Std generators. Are any parts still available?

MSG J. G.

Dear Master Sergeant J. G.,

We went to the expert on ASKs for this answer. He's Chuck Davidson. Write down his phone number, DSN 992-1390 or (732) 532-1390, and his email:

[chuck.davidson1@us.army.mil](mailto:chuck.davidson1@us.army.mil)



ASKs were bought in the 1980s as an interim fix for a field requirement to quiet existing generator sets. ASKs were used on 3-, 5-, 10-, 15- and 30-KWs. At the time, very few spare parts were planned for the ASKs because the Army expected the kits to outlast the generators.

In 1993, the first tactical quiet generators (TQGs) hit the field and were meant to replace Mil-Std generators.

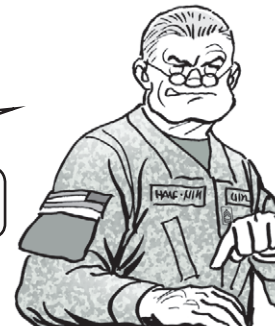
So, with the Mil-Std generators now all worn out or replaced by TQGs, there should be no call for ASK parts.

Right?

Wrong!

SO WHAT NOW?

HERE ARE THE OPTIONS BY THE NUMBERS...



1. If you have a 5- or 10-KW you may still be able to get a complete ASK. Get in touch with Chuck to find out.
2. If you have a 3-, 15-, or 30-KW, there are no more complete ASKs, but there may be some parts available. Get in touch with Chuck to find out.
3. You can remove the ASKs on the 3-, 5-, and 10-KWs and the generators will still run—just louder! (Wear that hearing protection!)
4. You can remove the ASKs on the 15- and 30-KWs, but you must replace the exterior panels. They were removed on these generators when the ASKs were installed. New panels can be fabricated. Chuck has the drawings and the installation info.
5. Finally, Mil-Std generators will be gone shortly, we think! So, make sure your repair effort is proportional to the expected short life of the generator.

Half-Mast

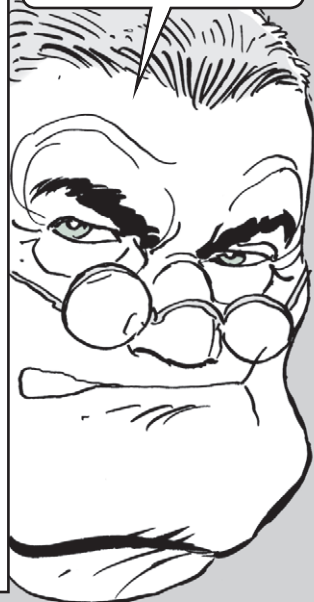
REPAIRING AN ASK?  
**USE COMMON SENSE!**  
KEEP THE PAINT IN SHAPE. MAINTAIN THE AIR SEAL OF THE PANELS. KEEP AIRFLOW SO YOUR GENERATOR STAYS COOL.

EXTERIOR PANELS ON THE 15- AND 30-KWs ARE A **MUST**. GENERATOR COMPONENTS WILL OVERHEAT WITHOUT THE PANELS DIRECTING AIRFLOW.

SOME PANELS MAY BE REPAIRED BY RIVETING OR WELDING NEW SHEET METAL OVER RUST HOLES.

STANDARD HARDWARE SHOULD DO THE JOB FOR MOST OF THE SCREWS, WASHERS AND NUTS.

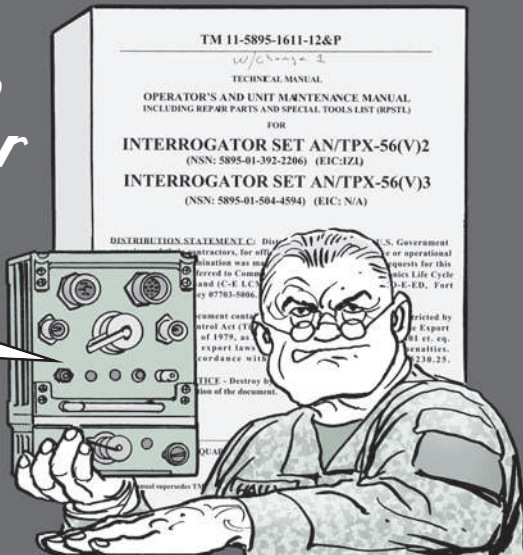
THE MEP-701 IS JUST AN MEP-01GB WITH AN ASK. THE ASK GETS IN THE WAY WHEN THE OLD ENGINE IS REPLACED WITH THE YANMAR. TAKE THE ASK OFF AND CONVERT BACK TO THE MEP-01GB.



# Correct the Interrogator Set

TM 11-5895-1611-12&P,  
THE OPERATOR AND UNIT  
MAINTENANCE MANUAL FOR  
INTERROGATOR SET,  
AN/TPX-56(V)2,  
NSN 5895-01-392-2206,  
AND AN/TPX-56(V)3,  
NSN 5895-01-504-4594,  
NEEDS A **CORRECTION**.

CHANGE 1 FOR THIS  
OCTOBER 2006 TM HAS  
JUST HIT THE FIELD AND IT  
HAS AN ERROR THAT **YOU**  
NEED TO CORRECT.



TURN TO PAGES C-13 AND  
C-14 AND CHANGE THE  
PART NUMBER AND NSN  
FOR THE MOUNTING BASE.

(1) Item No.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
	XB000	5975-01-461-0162	06845	4068705-0501	FIG. C-3 GROUP 03: MOUNTING BASE ASSEMBLY	
1	XB0ZZ	5340-01-442-5553	06845	4068706-0501	MOUNTING BASE ASSEMBLY..... (SEE FIG. C-1 FOR NHA)	REF
2	XB0ZZ	5340-01-442-5558	06845	4068889-0702	PLATE, MOUNTING BASE.....	1
3	XB0ZZ	5340-01-442-5552	06845	4044526-0701	STRAP, GROUND.....	2
				4044526-0701	BASE, MOUNTING.....	1

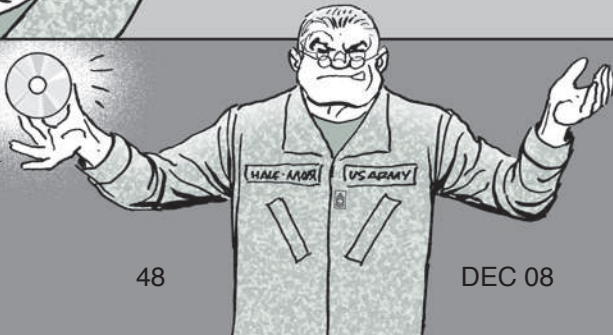
THE PART NUMBER  
SHOWN AS  
4044526-0701  
SHOULD BE  
4044526-0702.

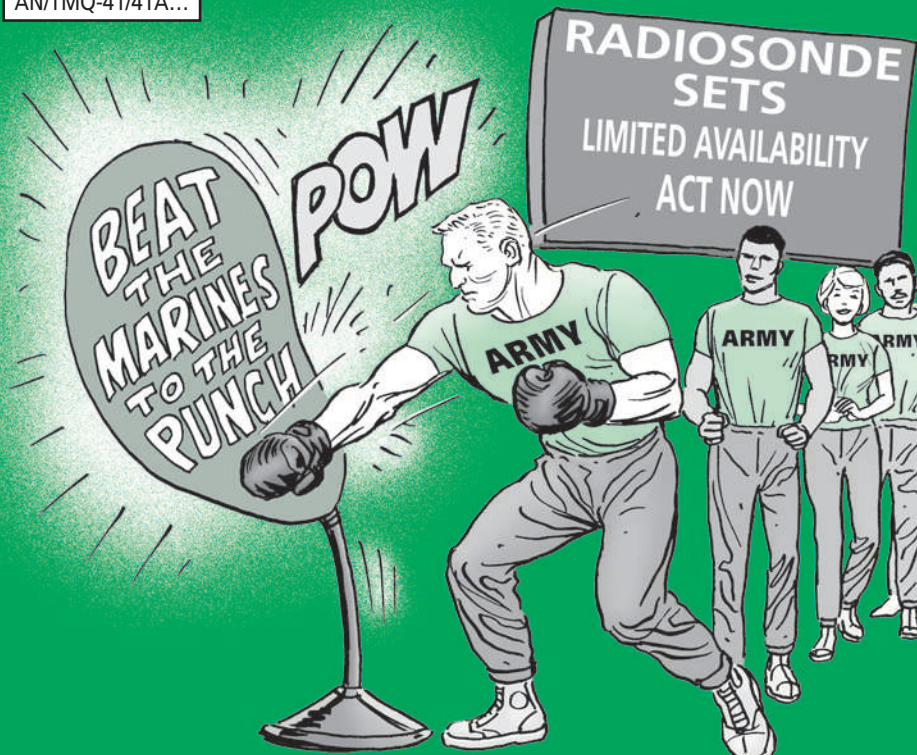
AND THE NSN SHOWN AS  
5975-01-442-5552 SHOULD  
BE 5975-01-508-4456.

## NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIGURE	ITEM
5895-01-442-5548	C-2	20
5895-01-442-7274	C-1, C-2	1, REF
5975-01-442-5553	C-3	3
5975-01-442-5558	C-3	2
5895-01-442-5549	C-2	9

IF YOU HAVE  
THE ELECTRONIC  
VERSION OF THIS  
MANUAL, MAKE  
THE CHANGE ON  
A STICKY NOTE  
AND ATTACH IT  
TO THE CD.





**M**eteorological measuring sets, AN/TMQ-41, NSN 6660-01-386-3906, and AN/TMQ-41A, NSN 6660-01-468-3306, that have not had their processors upgraded use radiosonde set, RS80-67, NSN 6660-01-353-8793.

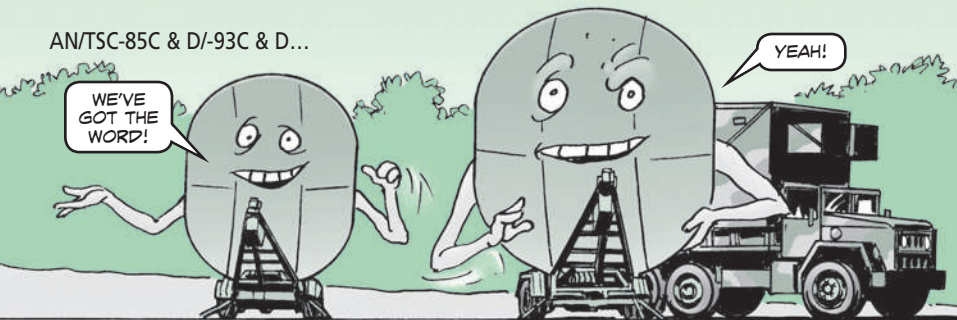
The bad news is, the manufacturer of these radiosonde sets has stopped making them. What's left on the supply shelves is what's left for you!

There's more bad news. You're in competition with the Marines for the sets that are left and the Marines are kicking butt!

So, if you have a meteorological measuring set, AN/TMQ-41 or -41A, that's required to sustain your mission to 2010 when the measuring set reaches its end of life date, you'd better anticipate the RS80-67 radiosonde sets you'll need and order them today! If you wait until you need the set, it will be too late! You'll have to go hat in hand to the Marines and beg for one. And no one wants to do that!

If you have a meteorological measuring set that has had the UPP-20 processor upgraded to the UPP-210A, you can use the newer RS92-KL, radiosonde set, NSN 6660-01-520-9069.





## SATELLITE COMMUNICATIONS TERMINAL CONTACT INFO

Dear Editor,

I need to get the word out to users of satellite communications terminals, AN/TSC-85C/D and AN/TSC-93C/D, that they need to contact the tactical multi-band branch of CECOM LCMC when their system is down.

The POCs they need to contact are myself, Wendy Camputaro, and Eddie Harris. Eddie's DSN is 992-8791 and his commercial number is 732-532-8791. He also can be emailed: [edward.harris1@us.army.mil](mailto:edward.harris1@us.army.mil)

My DSN is 992-8792 and my commercial number is 732-532-8792. I also can be emailed: [wendy.camputaro@us.army.mil](mailto:wendy.camputaro@us.army.mil)

Contact Eddie for questions about the service life enhancement program (SLEP) for the TACSAT terminals.

Contact me for questions about RESET, overhaul and rebuild of the TACSAT terminals.

Not only should soldiers contact me or Eddie when their system is down, but also if they have questions about requisitions on backorder or turn-in processes or scheduling the terminal for RESET.

So what do I need to do to get the word out?

Wendy Camputaro  
CECOM LCMC  
Ft Monmouth, NJ

MS CAMPUTARO,  
HOW ABOUT WE  
PUBLISH YOUR  
LETTER IN PS?

THAT  
SHOULD  
DO IT!

# Making the Most of Source, Maintenance and Recoverability Codes

SMR CODE CHARTS HELP USERS FIND SOURCE, MAINTENANCE AND RECOVERABILITY INFO FOR PARTS MORE QUICKLY.

THE SMR CHARTS ARE USUALLY FOUND IN THE REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) OF TECHNICAL MANUALS.



HERE'S AN EXAMPLE OF HOW SMR CODES WORK.



A bulk transfer fuel pumping assembly, NSN 4320-01-337-7538, is missing its noise enclosure. TM 10-4320-324-24P lists a CAGE Code of 36024 with PN 13220E1070. But the SMR Code is **XDOHH**.

An **X** in the first position means the part is not stocked by the Army or DoD.

The second position tells you what to do to get the part. The **D** tells users to locally purchase the part.

The third position defines the lowest level of maintenance that can **remove** or **replace** the item. The **O** means the organization/unit can replace the item.

Position 4 defines who can **repair** the item. The **H** means repair is done at the general support [sustainment] level.

In the last position the **H** means that the GS [sustainment] level determines when the part is no longer serviceable or repairable.

MOST SMR CHARTS WERE ASSIGNED WITH FOUR-LEVEL MAINTENANCE IN MIND.

THEY WILL BE REVISED AS THE ARMY MOVES TOWARD TWO-LEVEL MAINTENANCE.



KEEP THIS SMR CODE CHART HANDY FOR REFERENCE.



# KEEP THIS SMR CHART HANDY!

## JOINT SERVICE CODING REFERENCE CHART

(REF: AR 700-82/OPNAVIST4410.2/AFR66-45/MCO 4400.120/DLAR 4100.6)

SOURCE				MAINTENANCE		RECOVERABILITY		
1ST	2ND POSITION			3RD POSITION	4TH POSITION	5TH POSITION	6	
	Means of Acquiring the Item							
P (Procure)	A	ITEM: Stocked	FIELD	USE:  Lowest level authorized to remove or replace.	REPAIR:  Lowest level with capability and resources to perform complete repair.	DISPOSITION:  When unserviceable or uneconomically repairable, condemn or dispose.	SERVICE  OPTION  CODES	
	B	ITEM: Stocked, Insurance						
	C	ITEM: Stocked, Deteriorative						
	D	ITEM: Support, Initial Issue or Outfitting and Stocked only for additional Initial Issue						
	E	EQUIP: Support, Stocked, Initial Issue or Outfitting of Specified maint Activities						
	F	EQUIP: Support, Non-Stocked, Centrally Procured on demand						
	G	ITEM: Stocked, for Sustained Support, Uneconomical to Produce at Later Time						
	H	ITEM: Stocked, Contains HAZMAT. HMIS/MSDS Reporting Required						
	R	Terminal or Obsolete, Replaced						
	Z	Terminal or Obsolete, Not Replaced						
K (Kit)	D	ITEM: Deport O/H & Maintenance Kits	G	Navy Use Only	Navy Use Only	Navy Use Only		
	F	ITEM: Maintenance Kit, Place at O,F,H,L						
	B	ITEM: in both Depot Repair & Maint Kits						
M (Manufacture)	O	MFG OR FAB at Unit Level	SUSTAINMENT	H	General Support	H		General Support
	F	MFG OR FAB at DS Level						
	H	MFG OR FAB at GS Level						
	L	MFG OR FAB at Special Repair Activity (SRA)						
	G	MFG OR FAB at Both Afloat and Ashore (Navy Only)						
	D	MFG OR FAB at Depot Maintenance Level						
A (Assembled)	O	ITEM: Assembled at Unit	L	Special Repair Activity	L	Not Authorized Below Depot Level		
	F	ITEM: Assembled at DS Level						
	H	ITEM: Assembled at GS Level						
	L	ITEM: Assembled at SRA						
	G	ITEM: Assembled at Afloat and Ashore (Navy Only)						
	D	ITEM: Assembled at Depot Maintenance Level						
X (Not Stocked)	A	ITEM: Requisition Next Higher Assembly	D	Depot	Z	Nonreparable		
	B	ITEM: Not Procured or Stocked. If not available thru salvage, order using CAGE/Part Number						
	C	Order using Installation Drawing, Diagram, Instruction Sheet. Identify by Cage/Part Number						
	D	Not Stocked. Obtain via Local Purchase+C17						
			Z	Navy Use Only	B	Recondition	A	Nonreparable, needs special handling



# HAZMAT PACKAGING ARMY- STYLE



KNOWING WHERE TO FIND HAZARDOUS MATERIALS (HAZMAT) PACKAGING POLICIES AND PROCEDURES AND HAZMAT INFORMATION RESOURCES CAN GO A LONG WAY TOWARD HANDLING HAZMAT CORRECTLY.

THE ARMY MATERIEL COMMAND'S LOGISTICS SUPPORT ACTIVITY'S PACKAGING, STORAGE, AND CONTAINERIZATION CENTER (LOGSA PSCC) IS THE ARMY'S FOCAL POINT FOR HAZMAT.

DOD AND EACH SERVICE HAVE FOCAL POINTS THAT WORK TOGETHER TO ENSURE HAZMAT TRANSPORTATION IS HANDLED CONSISTENTLY.

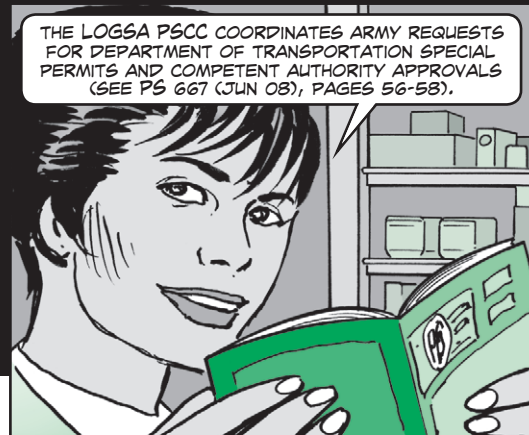


THE LOGSA PSCC COORDINATES ARMY REQUESTS FOR DEPARTMENT OF TRANSPORTATION SPECIAL PERMITS AND COMPETENT AUTHORITY APPROVALS (SEE PS 667 (JUN 08), PAGES 56-58).

IT ALSO IS THE ARMY'S PROPONENT FOR TM 38-250, PREPARING HAZARDOUS MATERIALS FOR MILITARY AIR SHIPMENT.



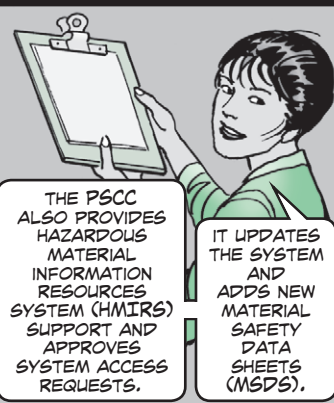
PSCC CAN PROVIDE MILITARY AIR WAIVERS TO ARMY UNITS.



THE PSCC ALSO GUIDES ARMY UNITS AND ORGANIZATIONS THROUGH HAZMAT REGULATORY REQUIREMENTS TO ENSURE THEY COMPLY WITH CURRENT LAWS AND REGULATIONS FOR EACH MODE OF TRANSPORTATION.

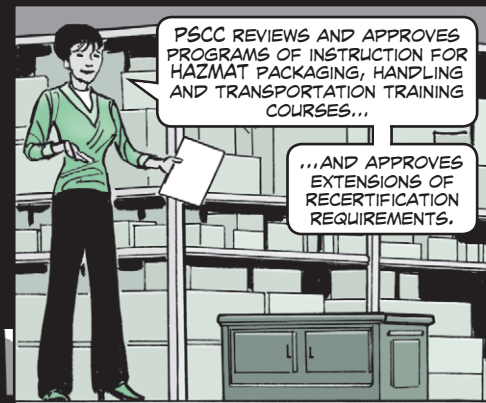


IF YOU NEED INFORMATION ABOUT HAZMAT PACKAGING, MARKING, LABELING, PLACARDING, COMPATIBILITY OR CERTIFICATION DOCUMENTS, PSCC IS YOUR SOURCE.



THE PSCC ALSO PROVIDES HAZARDOUS MATERIAL INFORMATION RESOURCES SYSTEM (HMIRS) SUPPORT AND APPROVES SYSTEM ACCESS REQUESTS.

IT UPDATES THE SYSTEM AND ADDS NEW MATERIAL SAFETY DATA SHEETS (MSDS).



PSCC REVIEWS AND APPROVES PROGRAMS OF INSTRUCTION FOR HAZMAT PACKAGING, HANDLING AND TRANSPORTATION TRAINING COURSES...

...AND APPROVES EXTENSIONS OF RECERTIFICATION REQUIREMENTS.

FOR MORE INFORMATION CONTACT CRAIG COFFMAN OR KENNETH PILLAR AT THE LOGSA PSCC, TOBYHANNA, PA.



DSN 795-7070/7685/7144  
Comm 570-895-7070/7685  
Email: [craig.coffman@us.army.mil](mailto:craig.coffman@us.army.mil)  
[kenneth.pillar@us.army.mil](mailto:kenneth.pillar@us.army.mil)  
or [toby.pt@us.army.mil](mailto:toby.pt@us.army.mil)

Army Combat Uniform...

# ARE YOU FOR REAL?

IT'S **BUYER BEWARE** WHEN YOU'RE BROWSING AROUND AN ARMY SURPLUS CLOTHING STORE.

YOU'LL SEE PLENTY OF UNIFORMS THAT LOOK LIKE THE NEW ARMY COMBAT UNIFORMS (ACU).

AT LEAST THAT'S WHAT THEY APPEAR TO BE.

BUT DON'T BE FOOLED; THEY'RE **NOT** AUTHENTIC.

"KNOCK-OFF" ACUS ARE SHOWING UP IN ARMY SURPLUS STORES ALL OVER THE COUNTRY.

**"NEARLY GENUINE!"**

THEY'RE ALSO APPEARING ON MANY WEBSITES.

**LOOK LIKE A SOLDIER!!**

THEY MAY **LOOK** LIKE THE REAL THING, BUT THEY'RE **FAKE**.

BECAUSE THEY **DON'T** MEET THE ARMY'S SPECS, THEY'RE CONSIDERED UNAUTHORIZED UNIFORMS.



SO, BEFORE YOU SPEND YOUR HARD-EARNED DOLLARS ON WHAT **LOOKS** LIKE AN ACU, CONSIDER THIS...



- The uniform may not meet appearance standards and specs set forth in AR 670-1, *Wear and Appearance of Army Uniforms and Insignia*.
- It may not meet durability and wear specs. Seams might fail. Colors might fade. Substandard fabric might tear or rip.
- ACU knock-offs are not made under government contract. When they wear out, the Army Military Clothing Sales Store (AMCSS) isn't obliged to support or exchange them.
- You'll be spending your own money on an unauthorized uniform. You'll get the real ACU issued to you at no cost if you deploy to Southwest Asia.

## How to Get the ACU

OTHER THAN THROUGH A DEPLOYMENT, HOW **DO** YOU GET THE ACU?

THE ARMY BEGAN PUTTING ACUS IN THE CLOTHING BAG IN FY 06.

AND IN JANUARY 2006 AMCSS STARTED SELLING ACUS.

AMCSS ARE THE **ONLY** STORES AUTHORIZED TO SELL AUTHENTIC ACUS, THE ONES THAT COMPLY WITH SPECS.

**DEFENSE LOGISTICS AGENCY**  
Clothing The Warfighters Logistics Combat Support Agency

**warfighter** Defense Supply Center

HOME GENERAL INFO REGISTRATION SHOP SPECIALTY SHOPS REGISTERED CUS

warfighter is Clothing & Textiles online information and ordering system. C&T is a component of the Defense Supply

THE ONLY PLACE ONLINE FOR ORDERING AUTHENTIC ACUS IS THE **WARFIGHTER** WEBSITE:  
<http://warfighter.dla.mil/newmenu/Index.jsp>

THE ACU'S UNIVERSAL CAMOUFLAGE HAS GRADUALLY REPLACED THE WOODLAND AND DESERT CAMO ON CLOTHING AND EQUIPMENT.

THE ARMY PHASED IN THE UNIVERSAL CAMO FROM MAY 2005 THROUGH MAY 2008.

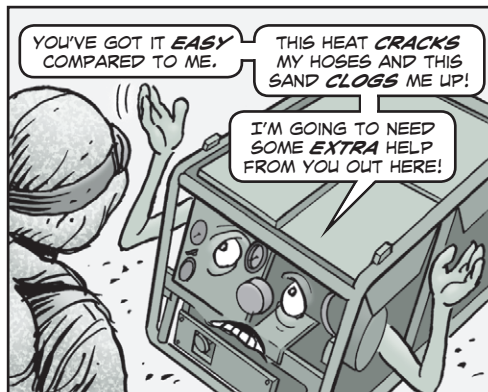
DURING THIS TIME, SOLDIERS HAD CLOTHING AND GEAR WITH A MIX OF CAMO PATTERNS.

## ACU—Real or Fake?

When you look over a uniform, here's how to tell if it's the real deal or a knock-off: Look for two tags sewn into the uniform. One tag near the collar tells the size. Another tag somewhere else on the uniform gives a government contract number, NSN and care instructions. Valid contract numbers start either with the letters SPO or with the letters and numbers W911QY.



# Decon Help in the Desert

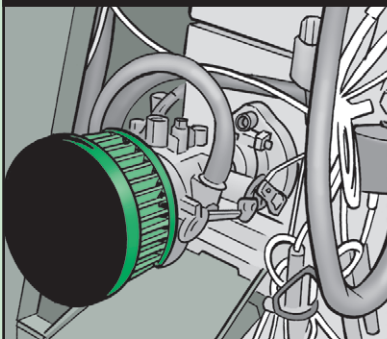


- Inspect the rubber hoses, water tank, and other rubber components weekly for wear, soft spots, and cracks.



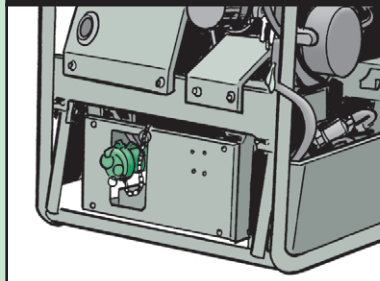
- Order extra rubber hoses, gaskets, seals, and air filters. Also order extra grease and oil. You'll need them in the desert.

- Get the new K&N air filter, NSN 2940-01-529-8953. It does a better job of filtering out fine sand. The cleaning kit for the filter comes with NSN 5895-01-512-0412.



- Keep lube off exposed parts. Lube attracts sand, which makes it harder for moving parts to move.

- To keep sand out of the M17's insides, order a quick-disconnect cap, NSN 4730-00-485-5055, for the water inlet, and a quick-disconnect cap, NSN 4730-00-929-0791, for the water outlet.



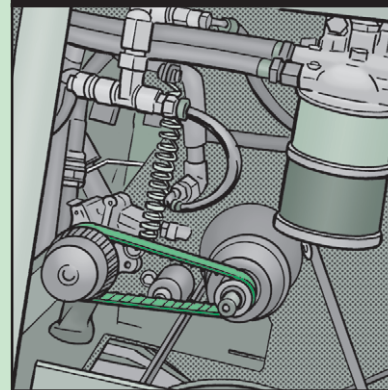
- Before doing maintenance, erect screens to block out blowing sand.



- Keep your M17 shielded from the direct sun during operations by moving it into the shade if possible.

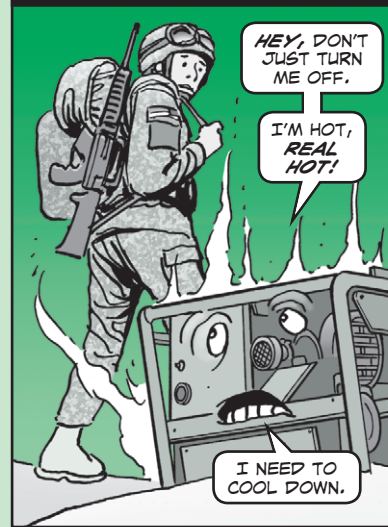


- Check the drive belt for looseness frequently during deconning. Tighten it if necessary.



- During fueling, use a cloth to cover the gap between the fuel nozzle and the fuel tank filler neck opening. That keeps sand out of the tank.

- Carefully follow the proper engine cool down and shutdown procedures. Otherwise, you risk ruining the heater coil.



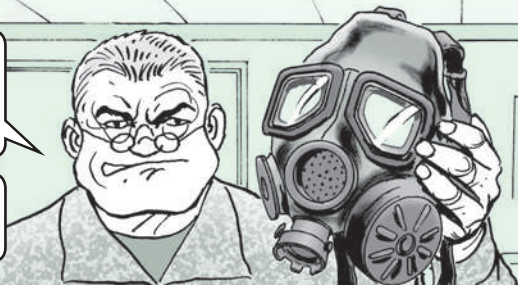


M40A1/  
M42A2  
Masks...

# WEED OUT BAD GASKETS

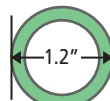
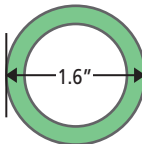
CBRN SPECIALISTS, SOME  
BAD SIDE PORT GASKETS,  
NSN 5330-01-260-8702,  
FOR THE M40A1/M42A2  
MASKS HAVE GOTTEN INTO  
THE SUPPLY SYSTEM.

THE GASKETS ARE TOO  
SMALL AND WILL HURT  
THE MASK'S SEAL IN THE  
SIDE VOICEMITTER AREA.



Immediately check your stock of side port gaskets for contract number SPM 500-03-d-0239-0130. If you're unable to ID the contract number, just check the size of the gaskets. The correct gasket has an outside diameter of 1.6 inches. The incorrect gasket's is 1.2 inches.

Correct gasket is  
1.6 inches in diameter



Bad gasket is  
1.2 inches

If you find any bad gaskets, submit a PQDR through the AEPS website:

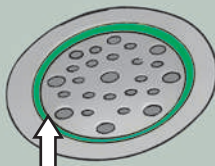
<https://aeps2.ria.army.mil/Services/Supply/amcqdr/entry.cfm>

Check for bad side port gaskets in your masks like this:

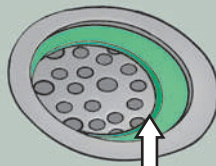
Hold the nose cup out of the way and locate the side port assembly opening (it's the opposite side of the canister port) on the inside of the facepiece assembly.

Hold the side port assembly opening under a strong enough light that you can clearly see the gasket sandwiched between the side voicemitter and the side port housing. If the correct gasket is installed, the edge of the gasket will be flush with the edges of the side port.

Correct gasket will be flush  
around the edges of side port



Correct with gasket



Wrong or NO gasket

FOR MORE INFO, SEE TACOM MAINTENANCE  
ADVISORY MESSAGE 08-026:

[https://aeps2.ria.army.mil/commodity/mam/tacom\\_wn/08/mam08-026.html](https://aeps2.ria.army.mil/commodity/mam/tacom_wn/08/mam08-026.html)



## NEW RHINO TESTING BOX

You may have noticed that new Rhino systems are coming equipped with a health and status monitor (go/no go) box that allows vehicle operators to test Rhinos during pre-combat checks. The new box, developed by Letterkenny Army Depot, shows power and operational readiness so you can make sure your Rhino is fully operational.

But units can't get the testing box for currently fielded systems just yet because supplies are limited. We'll let you know how and when you can order the box.

## AVIATION MACHINE GUNS

All Black Hawk and Chinook units should have the new M240H aviation machine gun. The M240H replaced the old M60D gun. Units that do not have the new guns should contact the TACOM-RI headshed to get them. You can call DSN 793-6303, or commercial, (309) 782-6303.

## BRADLEY FAN DRIVE PROP SHAFTS

Mechanics, some Bradleys have engine cooling fan drive propeller shaft U-joints, NSN 2530-01-151-7825, with grease fittings that require semiannual lubing. However, some newer U-joint versions are sealed and don't require servicing. You need to eyeball the U-joints to see which U-joint you have. The next update to the -20 technical manuals will show both types.

## M2 Trigger Block MWO

You can prevent accidental firing of your M2 machine gun by installing a trigger block kit, NSN 1005-01-414-9706, as called for in MWO 9-1005-213-30-1. The kit consists of a trigger block, one flat spring, two shoulder screws and safety wire. Your direct support can install the trigger block. Priority for the kits will be given to deploying units. For more information on the MWO, contact TACOM-RI's MWO Coordinator Vanya Cowser at DSN 793-1054, (309) 782-1054, or email:

[vanya.cowser@us.army.mil](mailto:vanya.cowser@us.army.mil)

For M2 questions, contact TACOM-RI's Walter Hilliard at DSN 793-2108, (309) 782-2108 or email:

[walter.hilliard@us.army.mil](mailto:walter.hilliard@us.army.mil)

## OCIE PCS Shipments

There are two ways you can ship your retained issue OCIE. You can ship it: **to arrive with your household goods shipment**, or as a **separate freight shipment to arrive before your household goods shipment**. In either case, get your clothing record from your AKO MY CLOTHING link:

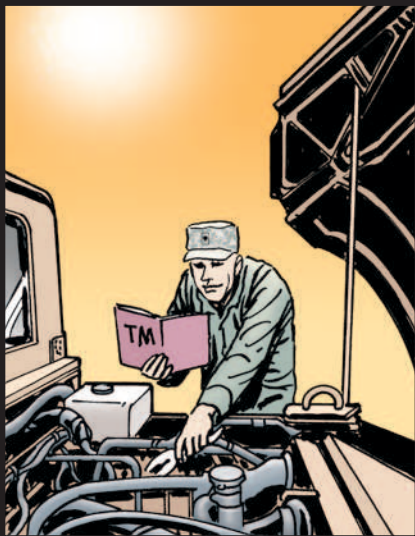
<https://www.us.army.mil/suite/page/230892>

Use the AKO clothing record as a packing list for your retained issue OCIE. Separate these items from other goods and use a lockable duffle bag or container. Make sure the transportation office and the mover know you are shipping OCIE as Professional Books, Papers, and Equipment.

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?**

# DO YOUR PM BY THE TM...



# ...OR YOU'LL WISH YOU HAD!

