

Issue 531

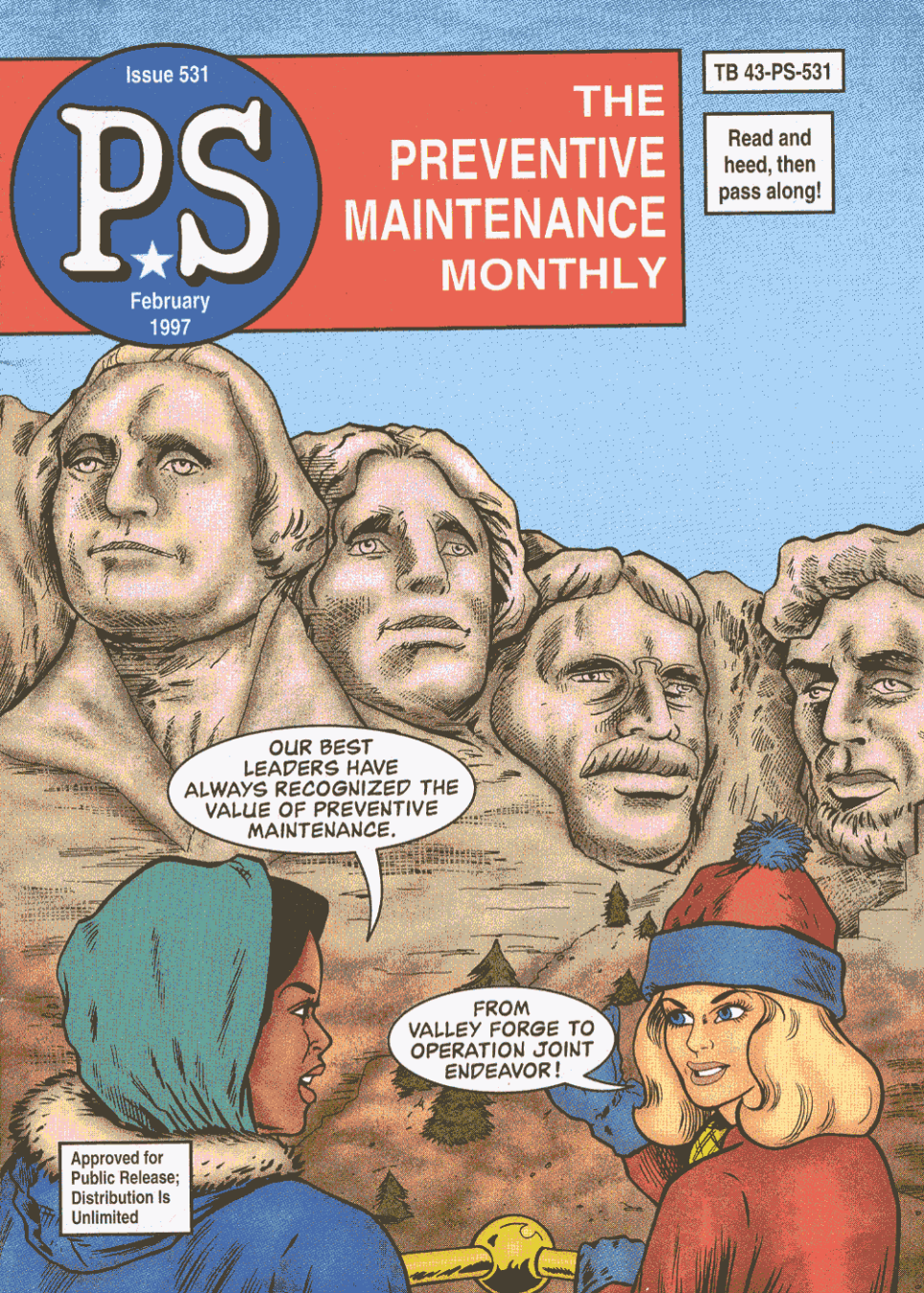
PS

February
1997

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-531

Read and
heed, then
pass along!



OUR BEST
LEADERS HAVE
ALWAYS RECOGNIZED THE
VALUE OF PREVENTIVE
MAINTENANCE.

FROM
VALLEY FORGE TO
OPERATION JOINT
ENDEAVOR!

Approved for
Public Release;
Distribution Is
Unlimited

Fit to Fight . . .

Prepare for the Worst

Soldiers have to be ready to go NOW, wherever they are needed.

Precious few soldiers have a specific mission or a specific climate to work in. Army climate is ANY climate, any weather, any place.

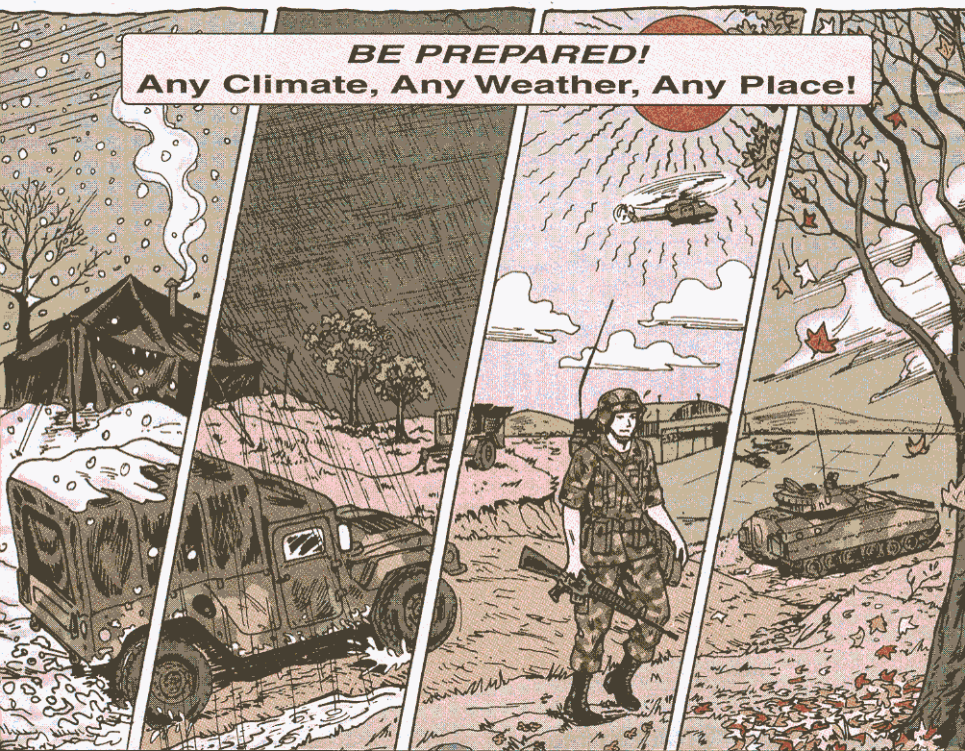
That means your equipment has to be just as ready to deploy to any climate, anywhere.

You've conditioned your body with PT for whatever it's asked to do. You have to do the same thing for your equipment. If it's cold outside, your equipment must be ready to operate in the cold. But at the same time, it has to be ready to operate in the jungle or in the desert.

The best way to make sure your equipment is as fit as you are is to exercise preventive maintenance thoroughly. Never skip a step; go by your -10 or -20 manual every time. If the manual says report a leak, report it. If the fault makes the equipment NMC, fix the fault or get it fixed.

Do PM like you do PT, and both you and your equipment will be fit for duty. To be the best, prepare for the worst.

BE PREPARED!
Any Climate, Any Weather, Any Place!





**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-531, 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.

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

MSG Half-Mast
The Preventive Maintenance Monthly
Bldg. 5307
Redstone Arsenal, AL 35898-7466

Or E-mail to:

psmag@logsa.army.mil

By Order of the Secretary of the Army:

DENNIS J. REIMER

General, United States Army Chief of Staff

Official:

Joel B. Hudson
JOEL B. HUDSON

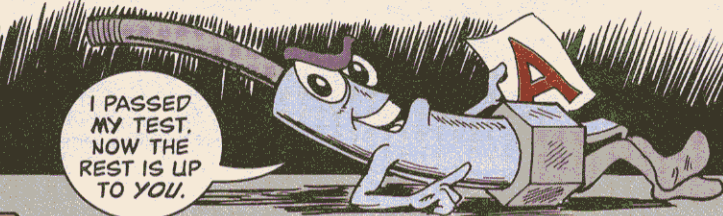
Administrative Assistant to the Secretary of the Army
02861

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HMMWV...

GLOW PLUGS TESTED & OK'D

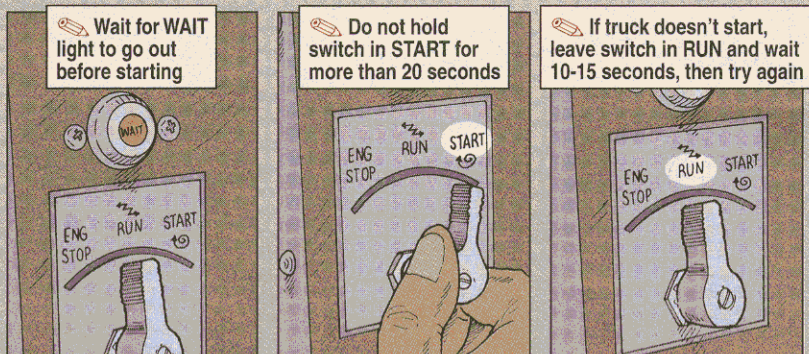


I PASSED
MY TEST.
NOW THE
REST IS UP
TO YOU.

The failure rate of HMMWV glow plugs last winter was so high that the Defense Logistics Agency and Tank-Automotive and Armaments Command ran complete tests on plug, NSN 2920-01-188-3863.

These plugs tested out as good as—or better than—the original equipment plugs, which were also tested at the same time. The plugs will work as designed if drivers start their HMMWVs as shown in TM 9-2320-280-10.

That means following these tips:



If you turn the rotary switch to ENG STOP, wait 90 seconds before trying to restart. If you don't wait, the glow plug controller thinks it's a new start and gives the plugs a new pre-glow cycle. Since the plugs are already hot, they'll get even hotter, which burns them out.

If your vehicle continues to experience starting difficulties, other problems may exist, such as bad fuel. Get it checked out by your unit mechanic.

Mechanics, eyeball the troubleshooting procedures in TM 9-2320-280-20 when glow plug problems come up.

If you have had problems with glow plugs that you believe are quality related, send a QDR to:

PS 531

Defense Supply Center Columbus
ATTN: DSCC-NCBB
PO Box 3990
Columbus, OH 43216-5000

TRACKING DOWN FUEL LEAKS

Mechanics, TM 9-2320-280-20's PMCS says to inspect the HMMWV's fuel injector pump every six months for leaks.

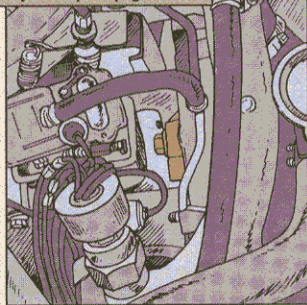
The gasket that fits between the pump and timing gear cover often leaks engine oil. If you find a leaking gasket, have support replace it with NSN 5330-01-150-5944.

While you're looking for leaks, eyeball the block valley with a flashlight.

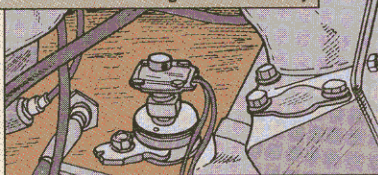
See any fuel? Report it ASAP! Your DS shop will look for:

- Loose or cracked fuel line fittings at the fuel injector pump
- Worn throttle shaft O-rings in the governor assembly
- A fuel leak at the vent hole or the bottom of the pump, and around the guide stud washer.

Look for oil leak at fuel injector pump gasket



Look for fuel on engine block valley



I'M
SURE I SMELL
FUEL. SEE
ANYTHING?

UH...
YEAH, THERE'S
FUEL ON THE
BLOCK VALLEY.
WE NEED TO
REPORT IT
ASAP!

Cooling System Reviewed

The HMMWV's cooling system works when you do. Let's explain that a little.

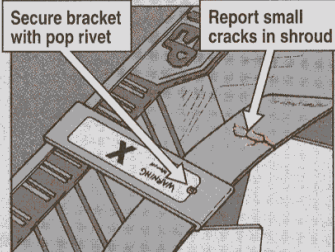
The fan shroud has its place—just in front of and around the fan blade. It'll stay there unless the brackets that hold it let go, or the shroud cracks and breaks loose.

If that happens, the fan blade can take a hit, which may cause overheating.

Eyeball all of the shroud brackets any time you have the hood up. Make sure the rear support and frame brackets are not damaged or loose.

If the retaining strap is loose, use a 9/64-inch drill bit to drill a hole in the middle of the bracket about 3/4 inch up. Go through the shroud, too. The bit is NSN 5133-00-227-9651 in the No. 2 Common tool set.

Secure the bracket to the shroud with rivet, NSN 5320-00-083-5009, using the rivet gun in the special tool kit.



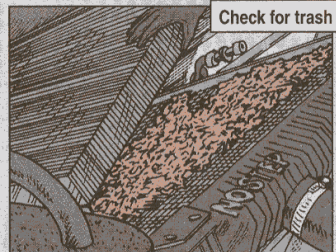
Look for minor shroud cracks, too. You can fix small cracks with fiberglass repair kit, NSN 2090-00-372-6064. Instructions come with the kit.



If you need to remove the shroud, don't bother repairing it. Just replace it.

Clean and Straighten Fins

Keep the radiator and oil coolers clean and the fins as straight as possible.



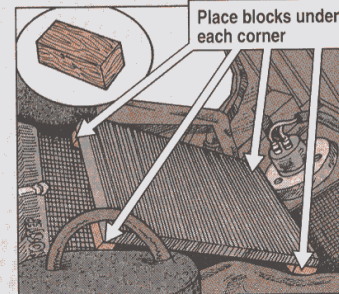
Those fins have sharp edges, so wear gloves to protect your hands.

To get the trash out is a job in itself. There's not much room between the

cooler and the radiator, so go with this: First, move the power steering cooler out of the way.

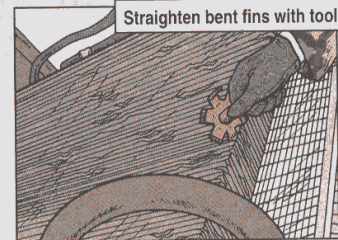
Remove the four sockethead screws and washers that hold the oil cooler to the radiator.

Raise the oil cooler carefully and place a 2 1/2-in block of 2x4 under each corner of the cooler.



Clean between the coolers using only low-pressure water and low-pressure air.

Eyeball the radiator fins when the cleaning is done. Straighten all the bent fins you can reach with the fin straightening tool, NSN 5120-00-157-2180, from either of the Common shop sets.



Remove the wood blocks and secure the cooler in place.

Straighten any bent fins on the cooler with the fin tool.

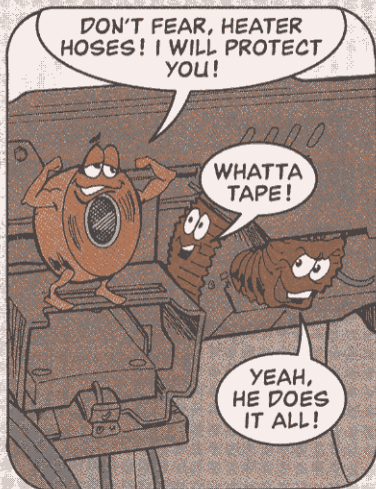
Duct Tape to the Rescue—Again

Good ol' duct tape must be the hardest working fix-it in the Army. This time it rescues the heater/defroster hoses in the HMMWV.

Seems these hoses take a beating in early model trucks, especially at the clamps. They aren't tough enough to take the bangs and bumps of soldiers and equipment.

Next time you have to replace the hoses, give 'em a couple of rounds of tape, NSN 7510-00-634-1341, where the clamps fit.

The A2-series HMMWVs don't have this problem 'cause the engineers routed the hoses through the engine cowl.



M939-Series Trucks ...

Prop Shaft Off Before Tow



Forget what TM 9-2320-272-10 says about not removing the propeller shaft before towing an M939-series truck with a towbar. TACOM says you **must** remove the propeller shaft between the transfer case and the intermediate axle before towing. Otherwise, internal parts will seize because of no oil flow.

The NOTE on Page 2-93 of the -10 TM says that normal towing procedures do not require propeller shaft removal. That'll be changed in the next revision to the manual, but you need to follow the new info now.

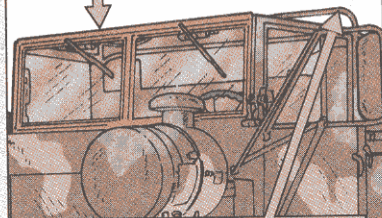
Five Bows Better Than Three

If your truck still has three bows to support the cab canvas, you know all about the mini-lakes that form between the bows after a rain.

You know, also, about the dry rot that dooms canvas because water, snow, ice and mud stay in those low spots until they dry out.

Solve this by adding two bows to support the canvas. There are already five plugged holes along the top of the windshield frame. You use three of them now. Just remove the other plugs, get a couple more bows, NSN 2540-01-092-1264, and drill a couple more holes in the top rear cross brace.

Remove two plugs on windshield frame...



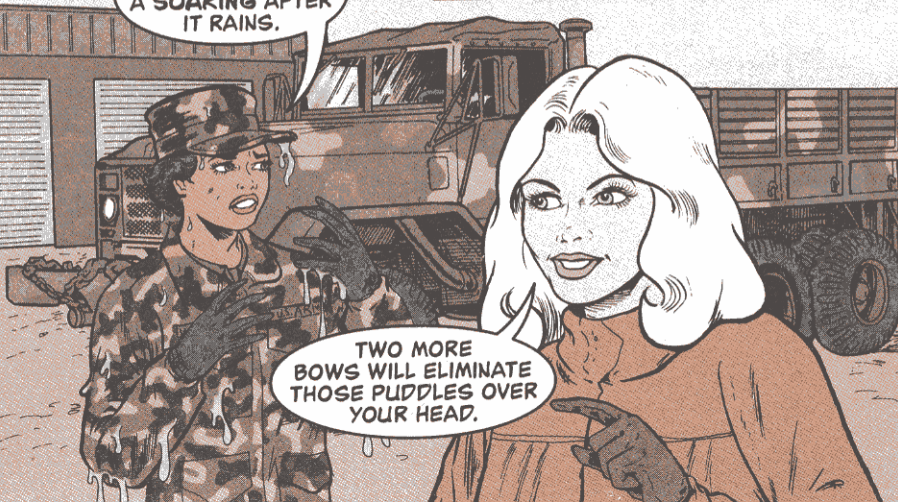
...and drill two holes in rear cross brace

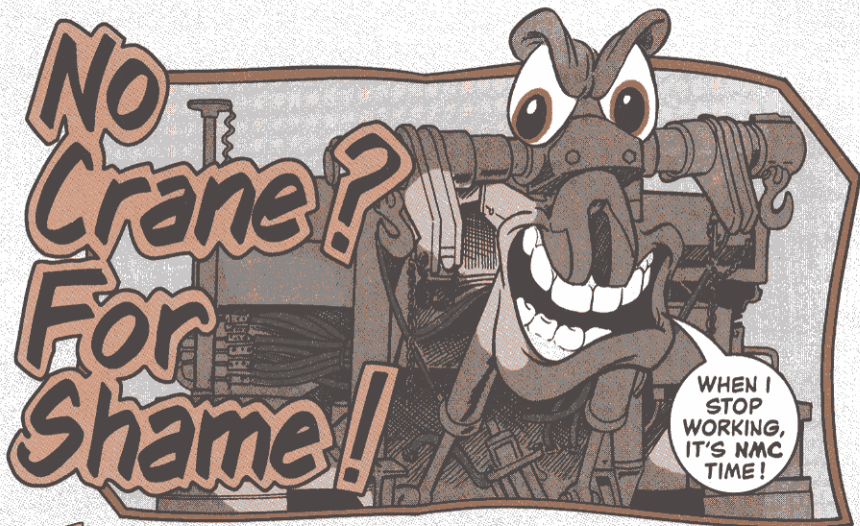
Add bows here



CONNIE, THAT CAB COVER ALWAYS GIVES ME A SOAKING AFTER IT RAINS.

TWO MORE BOWS WILL ELIMINATE THOSE PUDDLES OVER YOUR HEAD.





If the crane on your M977, M984E1 or M985 HEMTT stops working, your truck is NMC—plain and simple.

The crane usually stops working because the hydraulic fluid is low or the hydraulic filter element is clogged.

Eyeball the fluid level on the hydraulic reservoir's sight glass before every operation. The fluid level should be between ADD and FULL after the vehicle is warm.

A clogged filter starves the vehicle's hydraulic pump for oil. No oil means the crane won't raise or lower.

Make sure your mechanic replaces the crane's hydraulic oil filter element during scheduled service, or more often during heavy use.



Save the Ether Cartridge

Mechanics, if your HEMTT's ether start isn't kicking in this winter, it's probably because you forgot to remove the cartridge last summer.

The hot and humid days of summer cause it to rust and leak. Then it can't deliver ether when you need it to start your vehicle.

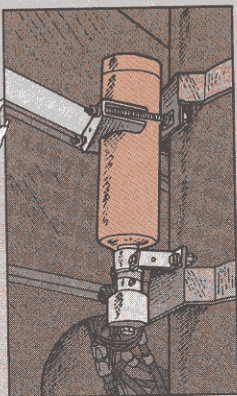
Do your HEMTT a favor. Remove the cartridge in the summer or in places where it's warm all year around. The cartridge is there

only to help the truck start in cold temps.

Just unscrew the cartridge from the solenoid valve and plug the hole with the cap that is chained to the solenoid.

Be sure to store the ether cartridge in a cool, dry place so it can be put back on when you need it—in cold weather.

REMOVE THE
ETHER CARTRIDGE
IN HOT WEATHER.



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

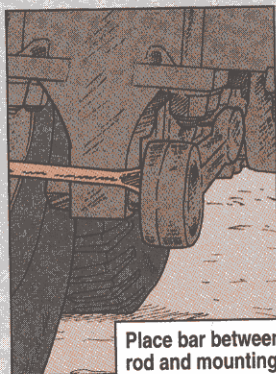
Torque Rod Check Out

Hold one before you replace a torque rod on any 2 1/2-ton or 5-ton truck. Remember, it's not how the rod looks—it's how it works.

A lot of rods are being replaced just because the rubber bushings are cracked or separated. Here's how to tell for sure if a rod is good to go.

Place the flat end of a 3-ft crowbar, NSN 5120-00-242-0762, 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. If the torque rod returns to its original position, it's OK. If it doesn't, replace it.

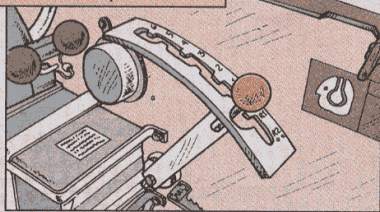


Put Finger on Track Tension

Operators, knee deep in mud is no time for track problems on your ACE. Here's a quick way to tell if the track is loose before you head out:

1. Start the engine to keep the suspension charged.
2. Shift to SPRUNG mode and reverse (R1). Drive at max speed for about 50 feet on a hard, level surface.
3. Shift into neutral and coast to a stop without using the brakes or turning the steering wheel.

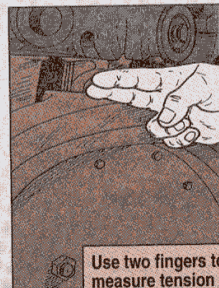
Coast to a stop in NEUTRAL



4. Do not set the parking brake.
5. Let the engine idle at 750-850 rpm for five minutes. That maintains hydraulic pressure and lets the vehicle settle completely.
6. Eyeball each track at the No. 3 and No. 4 road wheels (from the front of the vehicle). The track should just touch the No. 3 road wheel and be about two fingers or 1 1/4 to 2 inches above the top of the No. 4 road wheel.

If track adjustment is needed, follow the info on Page 3-27 of TM 5-2350-262-10, except for Step 3. It's wrong. The ACE should be placed in the SPRUNG mode—not UNSPRUNG—before making the track adjustment.

Make a note of this change until the TM is updated.



Use two fingers to measure tension

IS IT JUST ME, OR AM I FEELING A LITTLE TENSION HERE?

THAT'S THE PROBLEM! YOU SHOULD'VE CHECKED MY TRACK TENSION BEFORE I'M HUB-DEEP IN MUD!

REMEMBER, TAKE A FEW MINUTES TO CHECK THE TRACK TENSION BEFORE YOU HEAD OUT.

Scour Away Paint Problems

Dear Editor,

Dried paint on hydraulic cylinder rods can destroy a good seal. As the rod moves in and out of the cylinder, paint rubs against the wiper seal and eventually wears it out.

That's why you're supposed to cover the rods with masking tape before doing any touch-up work. Unfortunately, not everyone follows this rule.

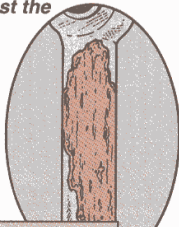
Methyl ethyl ketone, NSN 6810-00-281-2785, is the recommended solvent for removing paint. But when the paint is several layers thick, those cylinder rods can take a long time to clean.

We save ourselves time and effort by thinning multiple layers of paint with sandpaper.

We start with a coarse grit paper and work our way up to a finer grit.

You have to stop and switch to solvent before you get to the mental, though. Scarred cylinder rods will cause the same seal problems as paint.

WO1 Nathaniel Walker
588th Engr Bn
Ft Sill, OK



Painted cylinder rods ruin seals

Thin paint with sandpaper



FROM THE DESK OF THE Editor

That suggestion shows true grit! Here are some sandpaper NSNs you can use:

| Grit size | NSN 5350-00- |
|-----------|--------------|
| 60 | 221-0885 |
| 80 | 221-0884 |
| 100 | 161-9044 |
| 120 | 161-9043 |

The smaller the grit number, the coarser the sandpaper.

THIS SANDPAPER WILL MAKE SHORT WORK OF THAT PAINT ON YOUR CYLINDER RODS!

NEXT TIME USE TAPE AND YOU'LL SAVE YOURSELF SOME WORK!

Cruisin' for a Bruisin'

OUCH!
I TOLD YOU
TO LEAVE THAT
HAND THROTTLE
ALONE!



While driving their 130G graders to the next job site, some drivers like to use the hand throttle as a sort of cruise control.

Don't! Any cruisin' you do with the hand throttle can end up in a bruisein'.



Unlike the cruise control on your POV, the hand throttle doesn't cut off when you hit the brakes. If you need to stop in a hurry, you won't have time to mess with the hand throttle. The end result is a crash.

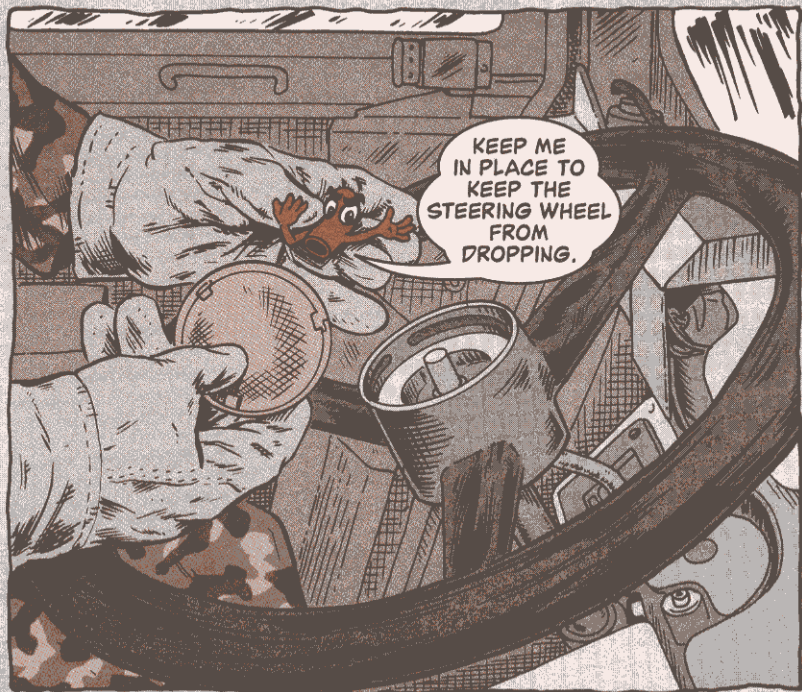
So do yourself—and your grader—a favor. Use the hand throttle only for non-driving operations, like moving the blade.

Hands Off That Cover!

The rubber cover in the middle of the MW24C scoop loader's steering wheel is not the horn button. The button underneath that cover releases the steering column to let your loader fit inside an aircraft.

If you hit the cover during operation, the steering wheel could drop down and hang up on the windshield wiper motor. You won't be able to turn the wheel—and your fingers could get mashed in the process.

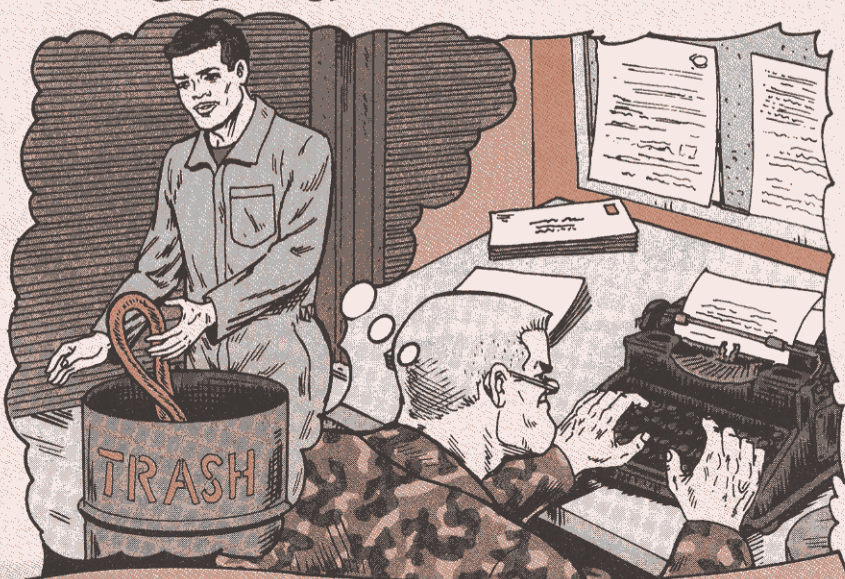
If the wheel drops, just pull the wheel up and it'll lock back in place.



Here's a simple fix your mechanic can make that will keep you from hitting the button by accident:

- 🔧 Cut a 7/8-in long piece of 1/2-in inside diameter copper tube, NSN 4710-00-424-2694, or conduit, NSN 5975-00-178-1216.
- 🔧 Remove the rubber cover. Slip the tubing over the button to shield it. Replace the rubber cover.

SEAL OF DISAPPROVAL



Dear Half-Mast,

After installing a new air induction system plenum seal on an M1 tank, I've noticed a possible problem.

When the powerpack heats up, the seal sometimes separates into two seals. Does that mean the plenum seal is bad? Should we replace it?

SFC J.P.M.

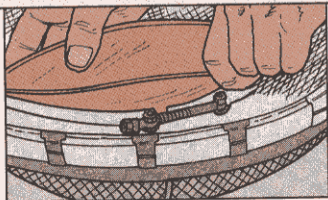
Dear Sergeant J.P.M.,

No, and no again. The plenum seal *IS* two seals. They've been bonded together to make installation a little easier.

Once the seal is in position and held in place by the inner and outer clamps, the bond is no longer important. Heat from the engine will usually make it dissolve.

Half-Mast

Plenum is two seals bonded together



TOWing the PM Line



THE BRADLEY'S TOW LAUNCHER WON'T BE ON ITS TOES WHEN IT'S TIME TO FIRE IF YOU HAVEN'T STEPPED UP TO THE PM LINE. KEEP THESE RULES IN MIND.

FIRE!!

GOOD THING WE LOADED UP ON PM!

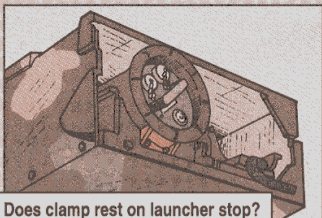
FOOM



Improper loading is the Bradley TOW's biggest enemy. If the missiles are not positioned in the launcher just right, the pillow blocks are damaged when the missiles are armed.

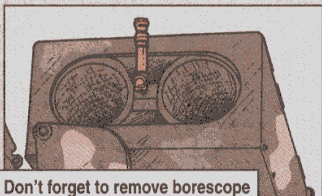
Before you load a missile, make sure the black protective cap has been removed from the missile connector, and there is no connector damage. Push the missile as far forward as it will go in the launcher.

Before locking the missile in, make sure its rear clamp rests on the launcher missile stop.

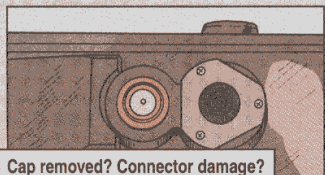


Does clamp rest on launcher stop?

After you've finished boresighting the launcher, remember to remove the



Don't forget to remove borescope



Cap removed? Connector damage?

borescope. If you don't, you can forget the launcher cradle. It will be destroyed when the launcher's lowered.

If you're using dummy TOWs, make sure you have good ones. A bad dummy can damage the launcher, MGS, and command guidance electronics (CGE) flex harness.

A bad dummy is one that hasn't had the holdback pin removed. Check for the pin by pushing down on the round's rubber diaphragm. If it doesn't spring back, the pin's been removed and the round's OK.

with a screw, NSN 5306-00-225-8499, and two washers, NSN 5310-00-257-2708 and NSN 5310-00-167-0820. The screw should be torqued to 168-192 lb-in.

TM 9-2350-252-10-2 says it's OK to go as fast as three MPH with the launcher up. Forget that!

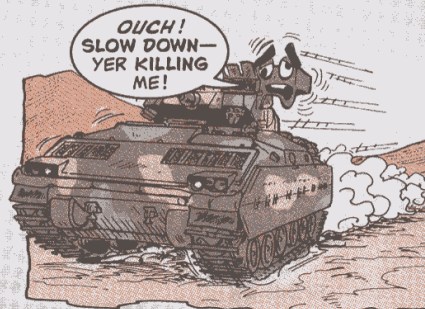
You could damage the launcher's erection parts. If you need to move, first lower the launcher.



Does diaphragm spring back?

If the pin's still there, your repairman needs to take it out and replace it

OUCH!
SLOW DOWN—
YER KILLING
ME!



End G/VLLD

Dear Editor,

Vibration loosens the rollers for the G/VLLD tray in the FISTV head. The tray develops too much play and eventually it can slide out of the head with the G/VLLD and night sight on it. That is an expensive spill.

It's difficult to tighten the rollers because there's so little room to get a wrench on the nut at the base of the roller... unless you modify a wrench like we did.

Here's how:

Take a thin $\frac{9}{16}$ -in wrench and grind off about $\frac{1}{4}$ inch from the top and bottom of the wrench. Grind the wrench down until it fits easily around the roller base nut.

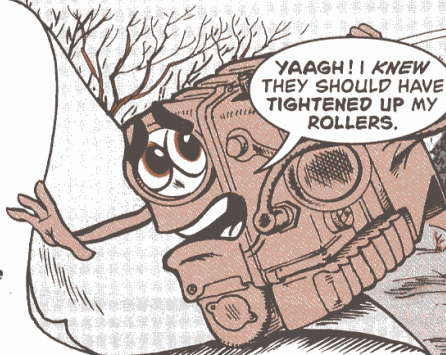
Loosen the roller's outside nut with a $\frac{7}{16}$ -in wrench.

Use the modified wrench to tighten the base nut until the roller has no up-and-down play. Retighten the outside nut.

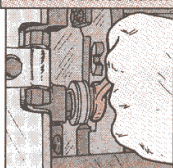
Do this with the other tray rollers. When you're finished, the G/VLLD and tank periscope must be boresighted.

Monthly, check the tray for up-and-down play. Tighten the rollers if needed. If rollers are damaged or heavily worn, get support to replace them.

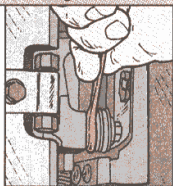
Pete Williams
U.S.A. Field Artillery Center
and School
Ft Sill, OK



Loosen outside nut...



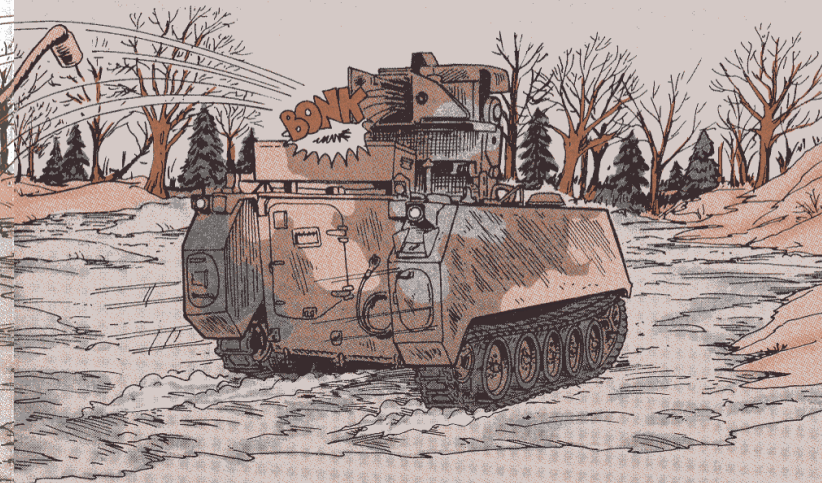
...then tighten base nut



FROM THE DESK OF THE Editor

That's a suggestion I think will play. Thanks.

Tray Play



Repair Precleaner

Mechanics, the SMR code for the precleaner and particulate assembly on the FISTV's ventilated face mask system is wrong.

The SMR code should be PAOOO, which means the assembly can be repaired at unit level. The assembly is Item 21, Fig 137, TM 9-2350-266-24P and Item 5, Fig 443, TM 9-2350-277-24P.

And what's a repairable item without repair parts?

Use these parts until the TMs are updated:

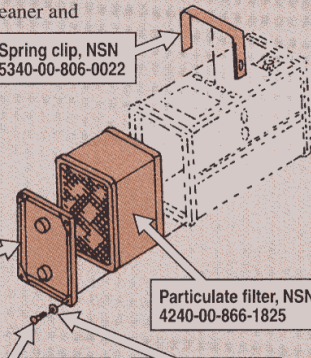
Manifold assembly,
NSN 4240-00-974-1237

Spring clip, NSN
5340-00-806-0022

Particulate filter, NSN
4240-00-866-1825

Machine screw, NSN
5305-00-814-4065

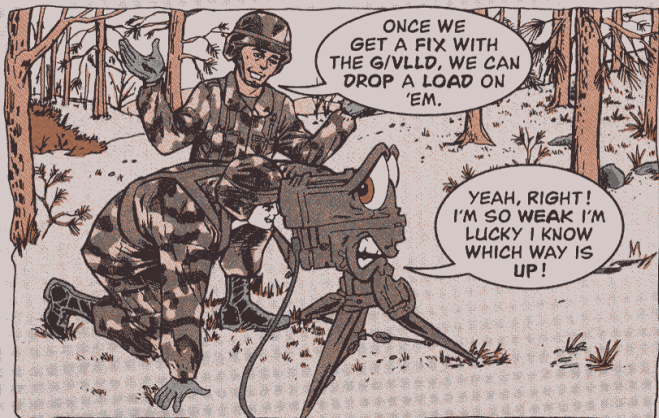
Lock washer, NSN
5310-00-045-3299



More

Power

to YOU



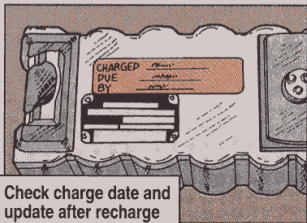
If the batteries for your ground/vehicular laser locator designator (G/VLLD) aren't charged up for action, the G/VLLD won't do much locating and designating.

The path to powerful batteries begins with charging. Before a mission, eyeball the charge date on the bottom of the batteries. If they haven't been charged in 10 days, charge them. If the batteries have been stored in

temperatures less than 30°F or more than 70°F, make that five days.

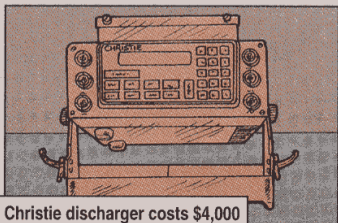
The tricky part is that batteries must be completely discharged before they're recharged. Otherwise, batteries develop a memory that prevents them from being fully charged.

A G/VLLD battery discharger/analyzer is available, but it costs \$4,000 and must be ordered directly from Christie Electric Corp., (310) 715-1402.



Check charge date and update after recharge

PS 531



Christie discharger costs \$4,000

20

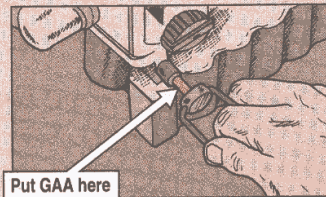
FEB 97

Once the battery's charged, write the date on the back of the battery. The best way is to stick a piece of white tape on the back. Write the date in pencil. Next charging, erase the date and write in the new one.

Bracket Help

Most battery damage you see is broken pivot brackets. Brackets are sheared off when operators change batteries. A bit of PM can help brackets last.

Clean the battery pin hole with an M16 rifle bore brush. Put a light coat of GAA on the battery release pin so it can move easily.

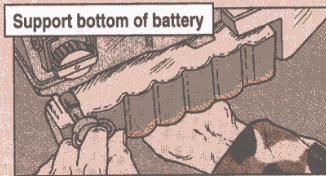


Put GAA here

Teach your unit to remove batteries like this:

Support the bottom of the battery so it doesn't take a fall.

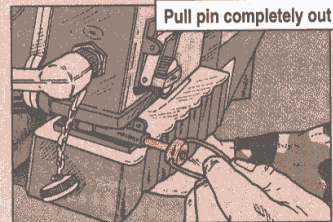
Support bottom of battery



Pull the release pin completely out of the battery. The battery should come

PS 531

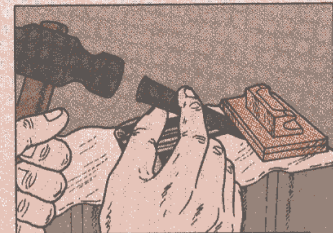
off easily. If it doesn't, something's wrong. Forcing it off breaks the bracket.



Pull pin completely out

Push the release pin all the way back in so it doesn't stick out where it can be bent.

When a battery dies, take off its bracket before you turn it in. Use a hammer and chisel to gently take off the good bracket from the dead battery.



Tap off bracket with hammer and chisel

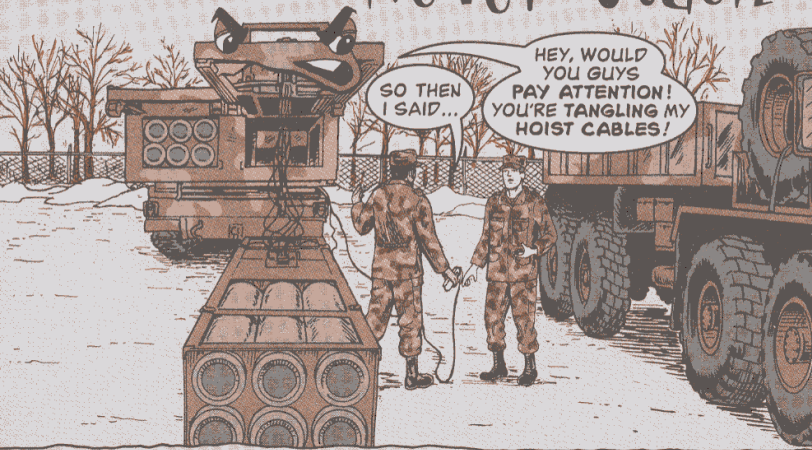
When a bracket breaks, remove the broken bracket and glue the good bracket in its place with metal epoxy, NSN 8040-00-944-7292. Let the epoxy cure 24 hours.

The battery is ready for action.

21

FEB 97

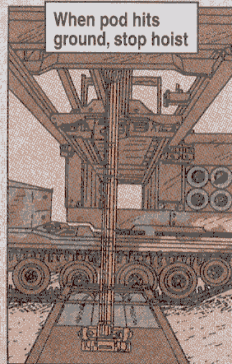
Never Slack on Hoist PM



Slack up during MLRS hoist operations and you can quickly ruin the hoist cable and possibly the hoist itself.

Slack is the hoist's big enemy. If you let the cable get too slack, it jumps track on the hoist drum. The cable kinks, tangles, and breaks.

Pay attention. Feed out only the cable you need. This is critical when you're setting a pod on the ground.



PS 531

If you're looking someplace else, cable keeps unwinding and soon you've got a mess. As soon as the pod hits the ground, stop the hoist.

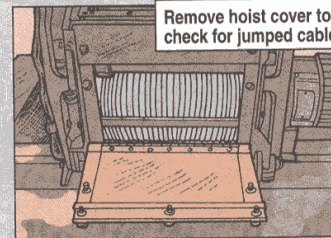
A little slack can be taken out by pulling straight back on the center cable. If you suspect the cable has jumped the drum track, take the cover off the hoist and look. You can often get the cable back on track by using the $\frac{3}{8}$ -drive speed handle to manually

22



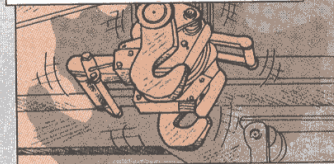
FEB 97

turn the drum as you work the cable back into position.



Watch as you stow the hoist, too. The hook assembly swings back and forth. If it bangs against the hoist carriage, the hooks get bent and the pulley jams. Stop the hoist when the hooks reach just below the hoist carriage. Wait for the hooks to stop swinging before you stow the hoist.

Don't stow a swinging hook assembly



Remember, lubricants attract sand and dirt that cut and weaken the cable.

Clean the cable with a rag and isopropyl alcohol. The alcohol will not only get rid of dirt but also rocket residue that corrodes the cables.



Clean cables with rag and alcohol

Washer Washout

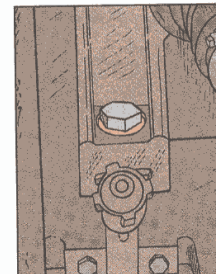
You can't use just any old washer when you install the close tolerance bolts on your MLRS's stabilization reference package (SRP), mechanics.

A regular washer won't fit inside the recessed portion of the SRP. When the bolt is tightened, it cups the washer. That makes the bolt nearly impossible to remove the next time.

Going without a washer

won't work, either. With no washer, the unthreaded portion of the bolt presses against and warps the threads in the SRP screw cap. Again, you'll have a hard time removing the bolt.

Use only washer, NSN 5310-12-187-2757, with those close tolerance bolts. It fits inside the recessed area and keeps the bolt from working loose.



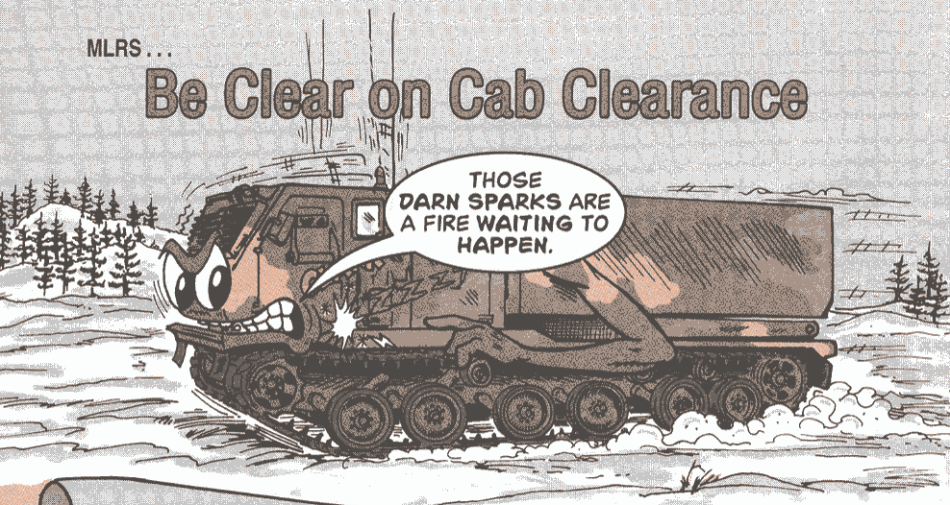
Recessed slot requires special washer

PS 531

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FEB 97

Be Clear on Cab Clearance



Dear Editor,

If the MLRS cab rides too close to the sponson, it bounces up and down on the output stud of the No. 1 generator. Once the stud wears away, there is metal-to-metal contact. That is a major fire hazard that has already burned up one launcher.

Our unit has put out that potential fire by checking the sponson cab clearance monthly. And we've come up with a quick way to do it.

Find a nut in the motor pool that's between .38 and .62 inch high. That's what the clearance should be.

Screw the cab adjustment screw all the way in.

Lay the nut on the sponson where the right edge of the cab comes down.

Lower the cab all the way down.

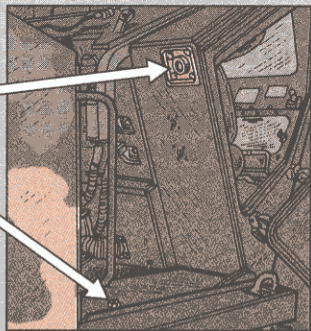
Turn the adjustment screw until the cab bottoms out on the nut.

Do the same thing on the other side.

You now have the correct clearance.

Do this monthly and you won't have clearance hazards.

SGT John Cox
5/17th FA
Ft Sill, OK



FROM THE DESK OF THE Editor 

Your suggestion clears up that problem. Thanks.

ELECTRIC SIGNS

It's a basic law of electricity that voltage has to go somewhere, even if it's only to ground. Trapped voltage fries components as it seeks an escape.

That's what is happening to the MGS circuit cards for the TOW missile system. TOW gunners either forget, or don't know, that:

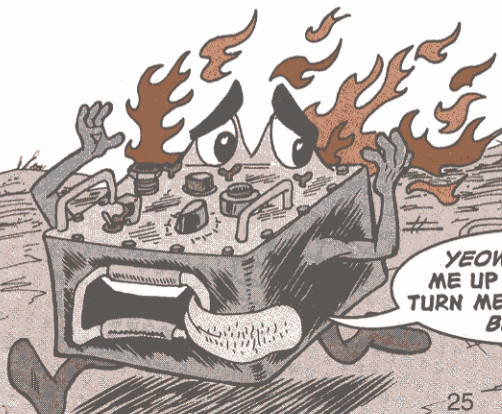
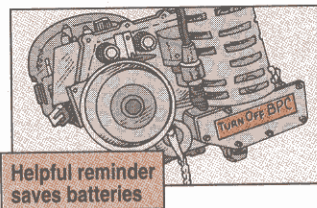
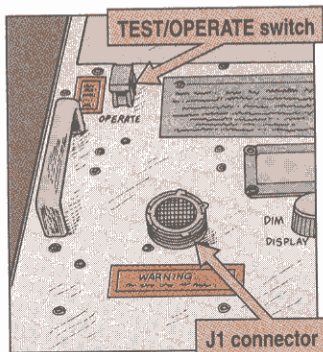
- ☞ The MGS should never be turned on unless it's hooked up to the rest of the system.
- ☞ The MGS should never be used for MILES training.

Both situations trap voltage in the MGS.

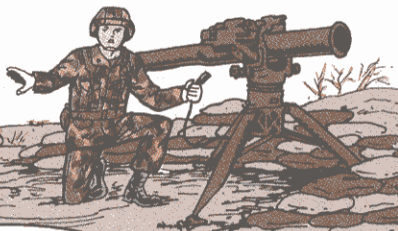
Get some stick-on labels like the ones used on file folders. On one label, write **DO NOT OPERATE MGS UNLESS HOOKED UP TO REST OF TOW SYSTEM**. Stick that label by the **TEST/OPERATE** switch. On another, write **WARNING: DO NOT USE WITH MILES**. Stick it by the **J1** connector.

Save night sight battery power conditioner batteries by making one more label. Write **TURN OFF BPC** and put it under the night sight **ON/OFF** switch.

That will help TOWsters remember to turn off the BPC when they turn off the night sight. Otherwise, the BPC lithium batteries drain completely and have to be replaced.



YEOWCH !! HOOK ME UP BEFORE YOU TURN ME ON! BEFORE !! BEFORE !!

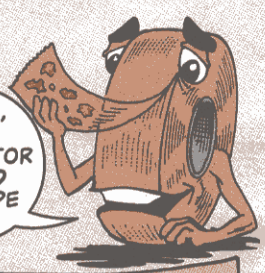


No Flaking Allowed

Dear Half-Mast,

I see quite a few TOW 2 boresight collimators that have the radioactive coating flaking off the window. Is this a safety hazard? Is there a standard for how much coating can be missing before the collimator's deadlined?

SGT C.J.

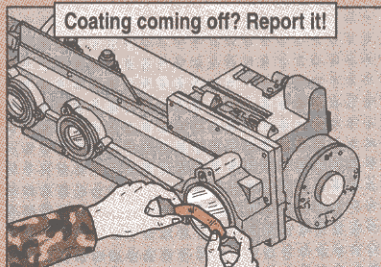


UH-OH,
THIS
COLLIMATOR
FAILED
THE TAPE
TEST!

Dear Sergeant C.J.,

If any of the coating on the window is flaking off, the collimator is considered unsafe and needs to be turned in to support. A good way to check if the coating is flaking is to stick a piece of clear tape on any questionable areas. If any of the coating comes off with the tape, turn in the collimator.

Half-Mast



TEST YOUR PM IQ!

Just how good are the glow plugs in your HMMWVs? (Page 2)

What does it take to keep the hydraulics on HEMTT cranes in working order? (Page 8)

How can you tell if a TOW dummy round is bad? (Pages 16-17)

How often should the G/VLLD tray on the M981 be tested for up-and-down play?
(Pages 18-19)

Why is it important to fully discharge the G/VLLD battery before charging it? (Page 20)

What's the best way to protect the microphone cord on the M42 mask? (Page 40)

How do you install a safety block on a CH-47D servocylinder? (Page 47)

What is the dollar limit on purchases made with a government credit card? (Page 56)

MISSION POSSIBLE

MAN, IS THIS BORING OR WHAT?

HOWITZER PMCS

- HULL
- TURR
- SIG
- C

LOOKS LIKE I'M GOING TO HAVE TO GET PHELEPPS IN THE PM GROOVE!

LATER...

RINNING!

GREAT!
WHO THE HECK IS CALLING AT THIS TIME OF NIGHT?



HE—HELLO?

SPECIALIST
PHLEPPS, GET TO THE
BMO...NOW!

WHAT?!
WHO IS
THIS?

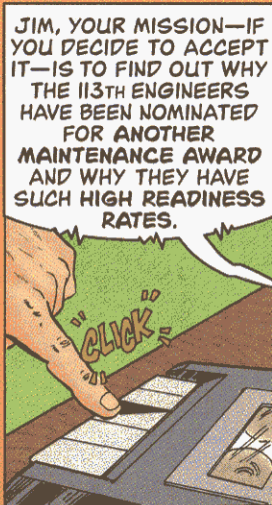
A FRIEND...DON'T ASK
ANY MORE QUESTIONS...JUST
GET TO THE BMO!



I WONDER
WHAT'S GOING
ON HERE?



HM—MMM,
THE PLACE
IS EMPTY—
HUH...?



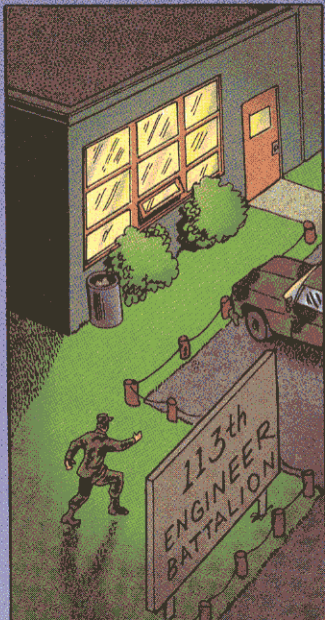
JIM, YOUR MISSION—IF
YOU DECIDE TO ACCEPT
IT—IS TO FIND OUT WHY
THE 113TH ENGINEERS
HAVE BEEN NOMINATED
FOR ANOTHER
MAINTENANCE AWARD
AND WHY THEY HAVE
SUCH HIGH READINESS
RATES.



WHAT'S THIS
ALL ABOUT?



WE NEED YOU
TO SNEAK OVER TO
THE 113TH AND FIND
OUT WHAT'S GOING
ON. OUR SOURCES
TELL US THAT THEIR
NCOs ARE HAVING A
MIDNIGHT MEETING
ABOUT PM AND
READINESS
STRATEGY.





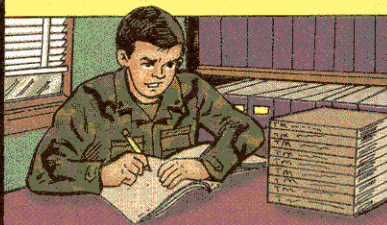
Rule 1

Teach the good book...the operator's manual, especially PMCS.



Rule 2

Make sure your pubs clerks receive the manuals they order. Have your pubs clerks stay up on the latest changes and revisions to TMs and TBs. They also need to get the latest LOs, MWOs and EIR Digests.



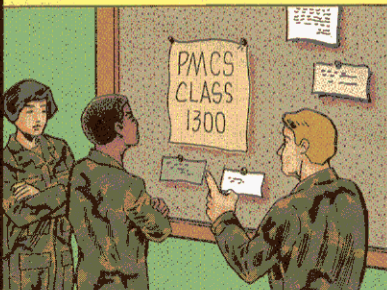
Rule 3

To keep the parts pipeline moving, let mechanics know when there's an NSN change. That way they can jot down the new info until their parts TM is updated.



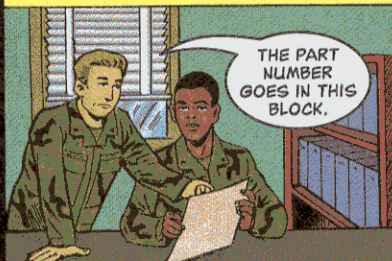
Rule 4

Make classes on the latest maintenance techniques available to all operators, mechanics and supervisors.



Rule 5

Teach operators and mechanics how to fill out forms. These forms are a vital link between the headshed and the users in the field.



Rule 6

Have senior technicians share their ideas and knowledge with others. New mechanics learn from others. Make sure the "others" are providing training, not just unsupervised make-work.



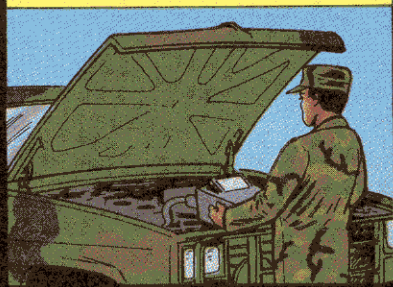
Rule 7

Supply folks must order and stock only what the unit needs to make sure scarce funds are used to their best advantage.



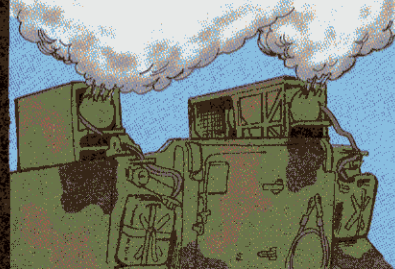
Rule 8

Unit mechanics must use test equipment to check for malfunctions and bad parts.



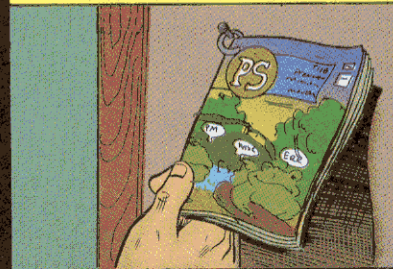
Rule 9

Some equipment needs a workout when it's not used often. Set a schedule to run normally idle equipment for 30 minutes or so at least once a month.

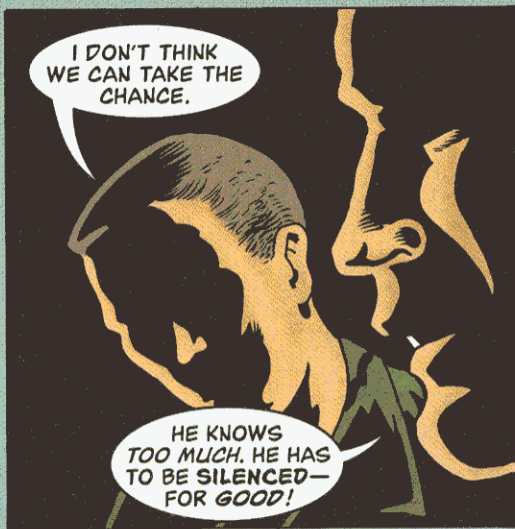


Rule 10

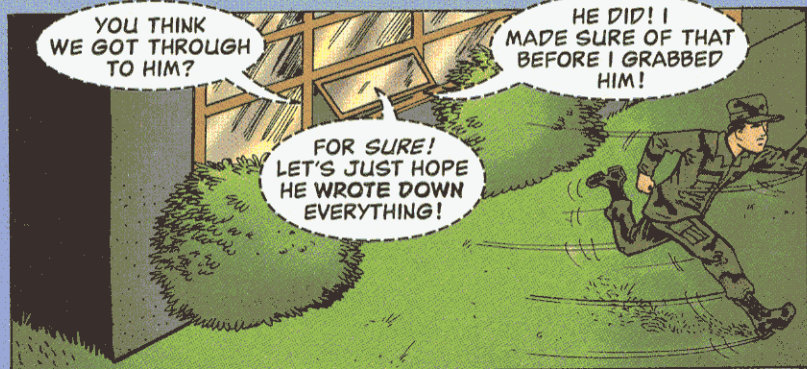
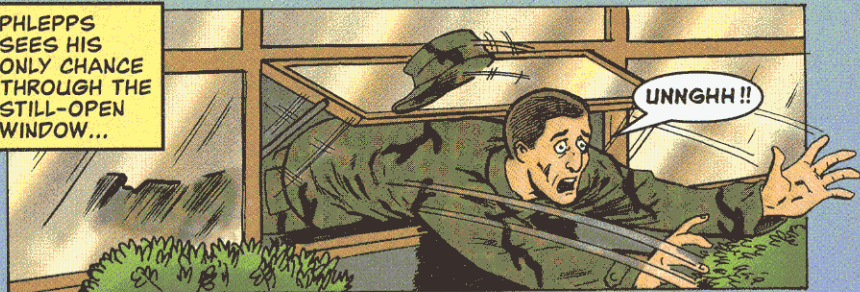
Make sure operators see PS Magazine. When you spot something in PS that would help—copy the story and put it where soldiers can see it.







**PHLEPPS
SEES HIS
ONLY CHANCE
THROUGH THE
STILL-OPEN
WINDOW...**

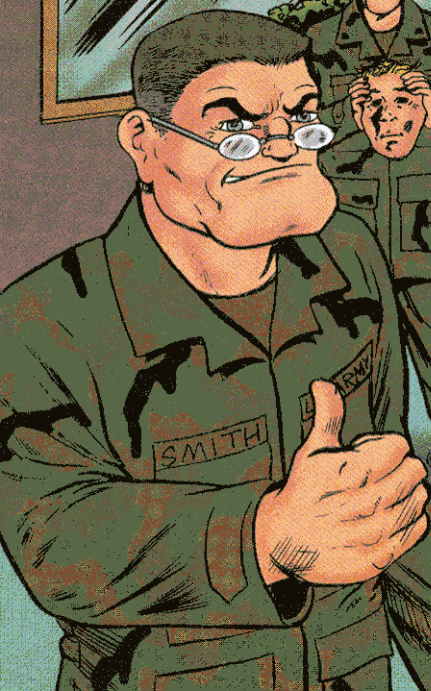




I SUPPOSE
WE CAN COME OUT
OF THESE THINGS
NOW.

SH-RRIIP

ANOTHER
SUCCESSFUL
OPERATION FOR THE PS
MISSION POSSIBLE
TEAM!



CAPS AND COVERS

Dear Half-Mast,
I disagree with our small arms inspectors. I believe you should use the M16 rifle's muzzle cap and protective cover as much as possible. And I think TM 9-1005-319-10 backs me up. But the inspectors say not to use them. Who's right?

SFC A.S.

Dear Sergeant A. S.,
If you're fording rivers, trudging through a rainstorm, or marching through the desert, the more protection you can give your rifle, the better it will fire. So by all means use the cap and cover in the field when the situation permits.

But rain and dirt aren't a problem in the arms room. Leave the cap and cover off M16s when they're stored. Muzzle caps trap humidity in the barrel during storage and lead to corrosion.

Half-Mast

HEY,
YOU BETTER
GET YOUR WEAPON
COVERED IN THIS
GULLY-WASHER!

NO NEED FOR
THIS CAP HERE IN
THE ARMORER'S
ROOM.

PS 531

35

ORTEGA

U.S. ARMY

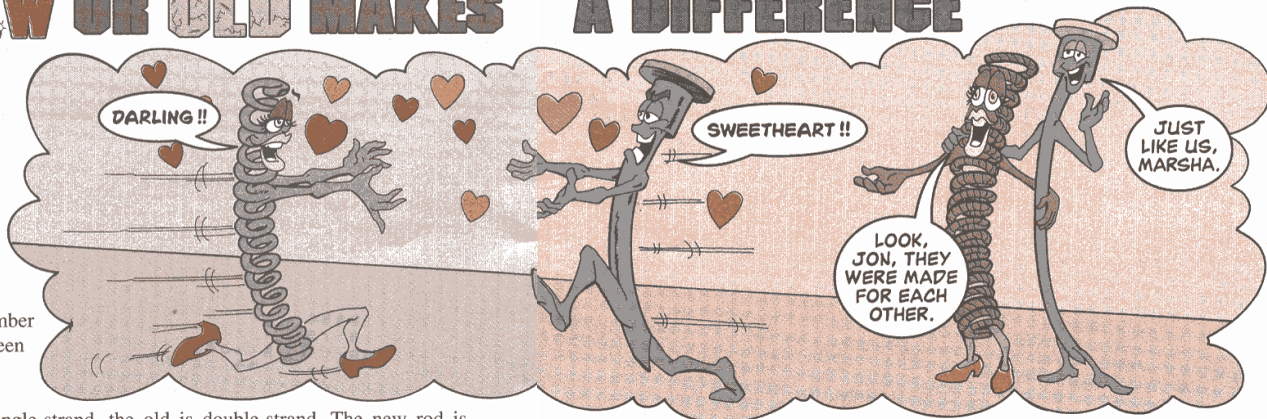
NEW OR OLD MAKES A DIFFERENCE

Some things take forever to go away... like old M60 machine gun parts.

New guide rods and recoil springs hit the supply system in the late '80s. But the old rods and springs still show up in arms rooms. Armorer's need to remember that the difference between old and new makes a difference in firing.

The new spring is single-strand, the old is double-strand. The new rod is thicker than the old one. If you use the old guide rod with the new spring, the spring will be too loose and develop flat spots. That causes jamming.

The new guide rod is too big for the old spring. If you force it on the rod, you damage the spring.



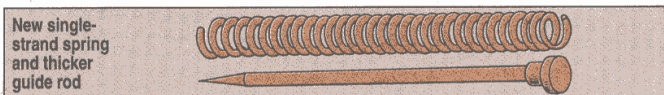
There are also two op rods in the system. The older rod has one sear notch, the newer one two notches. But they are both fine to use.



New op rod has two notches



Old double-strand spring and thinner guide rod



New single-strand spring and thicker guide rod

If the rod and spring do not fit together easily—or snugly—don't use them together. Order a new rod, NSN 1005-01-188-7877, or new spring, NSN 5360-01-203-2973. The other arms rooms on post probably have some.

Remember that firing compresses the recoil spring. Once the spring is shorter than 23 1/4 inches, replace it to prevent poor recoil, double feeds, and jamming.



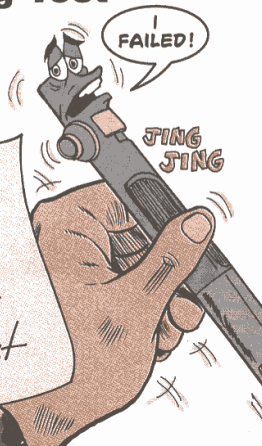
Firing shrinks spring, check it for 23 1/4 inches

The Ultimate Spring Test

Dear Half-Mast,
 What are the length requirements for the M60's firing pin spring? I can't find anything in TM 9-1005-224-24. How do I know if the spring's still good?
SPC J.M.

Dear Specialist J.M.,
 You couldn't find a length requirement because there's not one. To check if the spring's good, assemble the bolt and shake it. If you hear the spring rattling around inside the bolt, it needs to be replaced. No rattle? The spring's OK.

Half-Mast



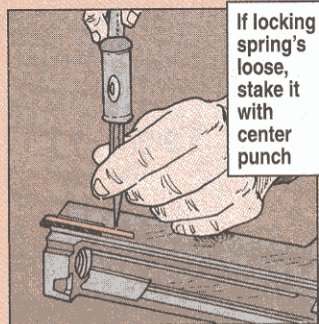
TO STAKE OR NOT TO STAKE

Using a punch to stake a loose M2 machine gun part is a wonderfully quick fix. One tap and you're done. But, if you tap the wrong spot, you foul up the M2 so bad that it has to go to depot. Remember these staking rules:



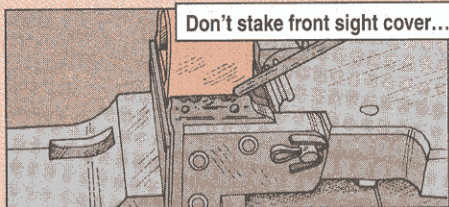
Good Staking

The barrel locking spring is one part that needs staking. If the spring works loose, the machine gun can't hold headspace and it starts rupturing cartridges. That's dangerous.

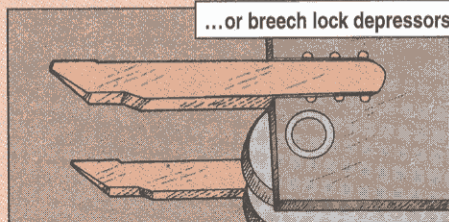


If the spring's loose, stake it once firmly with a center punch, not a flat punch. The center punch spreads the metal and helps the spring stay tight. Always stake the same spot, too. Staking in several spots weakens the spring.

Keep your punch away from the front sight cover and the breech lock depressors. The front sight cover is held on by pins that run through the receiver. Staking the cover makes it impossible for the pins to do their job. Depot repairmen have to repair the receiver. Support can replace a loose sight cover for around 50 cents.



The breech lock depressors are supposed to be loose so they can move up slightly when they hit the cam in the barrel extension.



No Jumpers Allowed

Some smoke units seem to think their M157 smoke generators work better if the high temperature switch is bypassed.

That's a dangerous thought. If the high temp switch is bypassed with a jumper wire, the temperature gauge won't show the true temperature. The M157 could be so hot—more than 1,200°F—that a fire would start.

Right now, before you go on another mission, look for jumper wires on your M157s. Check for a wire connected across the terminals for the high temp switch (TS101) or for leads W12-C and W12-D connected to one side of TS101 or connected to each other. If there's no jumper wire and leads W12-C and W12-D are correctly installed (see Pages 4-35 and 4-106 in TM 3-1040-279-12&P), you're good to go.

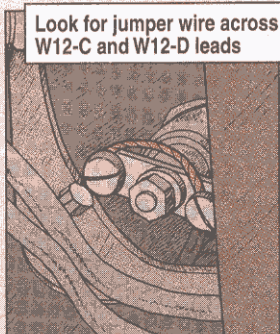
If you do find a jumper wire or improperly installed leads, remove the wire and disconnect leads W12-C and W12-D. Use a multimeter to check TS101 for a closed circuit (zero ohms).

If the circuit's closed, the switch is OK. Reconnect W12-C and W12-D and you're back in business.

If the needle doesn't move, you have an open circuit. The switch, NSN 5930-01-221-9466, must be replaced like it says on Pages 4-35 and 4-106 of the -12&P.

The M157's deadlined until the job's done.

The word on smoke jumpers is in ACALA SOUM 96-03.



LEARNING FROM EXPERIENCE

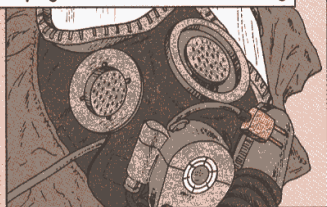
Experience has produced some valuable lessons on how to best take care of the M42/M42A1 masks. Take these lessons to heart:

Protection

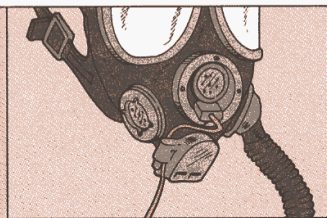
The microphone cord is lost and the front voicemitter microphone cord receptacle is damaged more than anything else on these masks. A snapped-off receptacle can't be repaired locally, so the mask has to be replaced. A few simple tricks, though, keep the cord and receptacle safe.

Most important, plug the cord into the mask receptacle only when you're using the microphone. If the cord's not plugged in, it can't catch on something and break off the receptacle. Run the cord behind the outlet valve cover sleeve to keep it from disappearing.

Unplug cord when not communicating



Route cable behind outlet valve cover sleeve

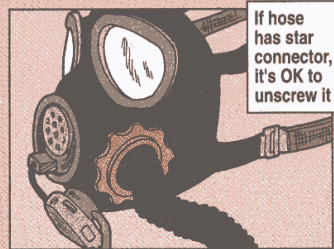


Stowing the mask correctly protects the microphone receptacle, too. After putting the canister and hose in the carrier, place the facepiece over the canister with the eyelens facing forward toward the carrier opening.

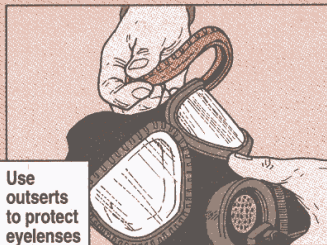
Use the outserts. A badly scratched lens cannot be fixed. But a scratched outsert can be replaced for less than \$13, about a \$185 savings. Outserts also prevent the mask from fogging up.

Hands off the M42 hose. It's true you can unscrew the hose from the mask. It's also true that doing so ruins the bond between the hose and mask. The newer M42A1 has a removable hose. Make sure you know which mask you've got before you unscrew the hose.

If hose has star connector, it's OK to unscrew it



Use outserts to protect eyelenses

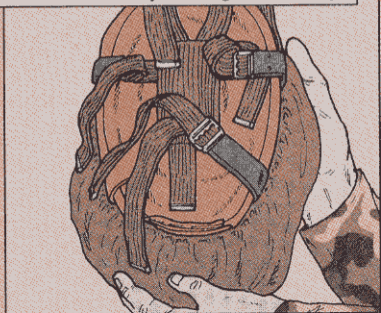


OK, SOLDIERS, IT'S TIME TO LISTEN AND LEARN HOW TO TAKE CARE OF THOSE M42 MASKS.



The faceform should be put in the mask only when the mask will be stored more than 30 days. It helps the mask keep its shape. But a faceform should not be used for field operations. It can actually damage the eyelenses.

Use faceform only for long-term storage



PMCS

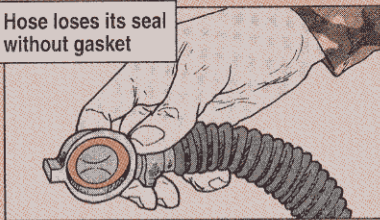
Of course, religiously do the PMCS in TM 3-4240-300-10-2/TM 3-4240-340-10. That's a sure way to get the most out of your mask.

But pay special attention to the outlet valve and the canister end of the hose. If the valve and valve seat are dirty, the mask has trouble protecting you. If the hose is missing its gasket, it loses its seal.



Keep outlet valve and seat clean

Hose loses its seal without gasket

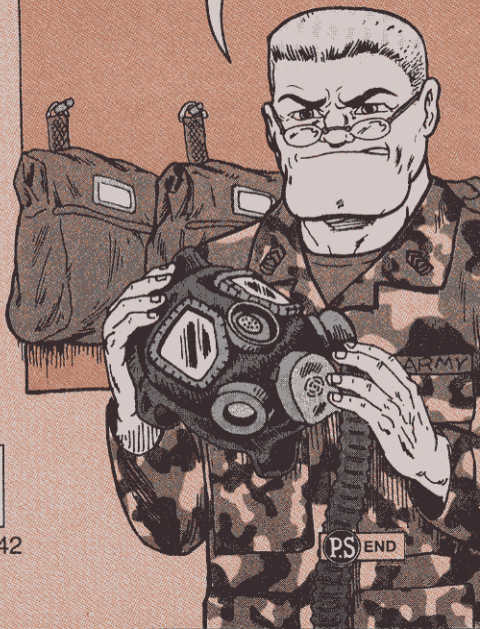


Training and Help

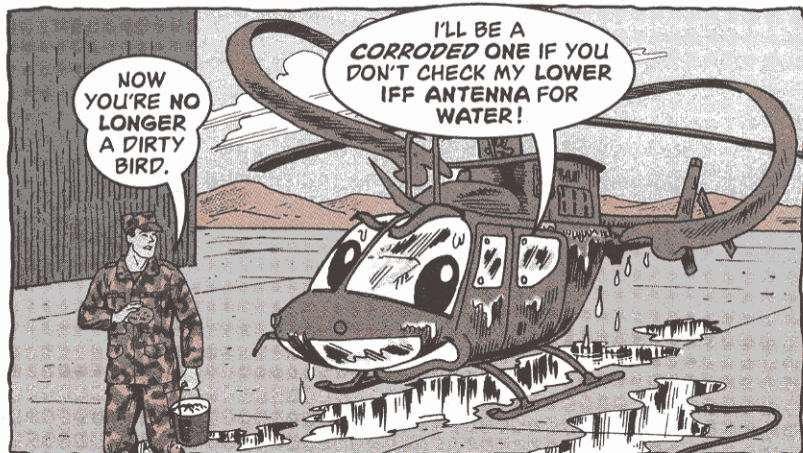
Two videos are available to help you train with the M40/M42 masks. TVT 3-96 PIN 710719 covers the operator and TVT 3-95 PIN 710665 covers the responsibilities of the NBC NCO.

If you have any questions about any of the masks, call the 24-hour hotline at (410) 612-6550, DSN 584-, fax -2149.

REMEMBER,
YOUR MASK CAN
SAVE YOUR LIFE AND
PM CAN SAVE YOUR
MASK'S LIFE!



Clean Up After Washing

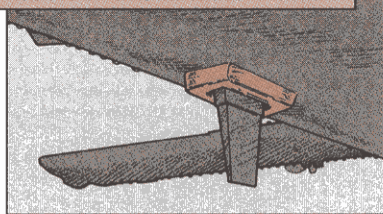


Where water accumulates, corrosion happens. Two areas on your OH-58D where water accumulates are the lower and upper IFF antennas.

When you do your AFTER WASHING HELICOPTER preventive maintenance inspections on Page 1-194 of TM 55-1520-248-23, add a PS to Item b and Item c.

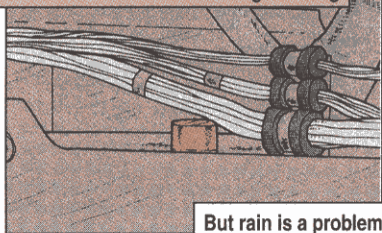
To Item b, "Check fuselage and tail boom attachment fittings for accumulation of water", add "Remove lower IFF antenna and check for water." Water accumulates here because the antenna sits right over a tail boom drain hole.

Remove IFF antenna and look for water



To Item c, "Check main transmission and hydraulic reservoir for accumulation of water", add "Check upper IFF connector and cabin roof disconnect for corrosion." Rain, not wash water, is the culprit here (the disconnect is covered during washing).

Connection is covered during washing



But rain is a problem

If either antenna location shows corrosion, tell your avionics folks.

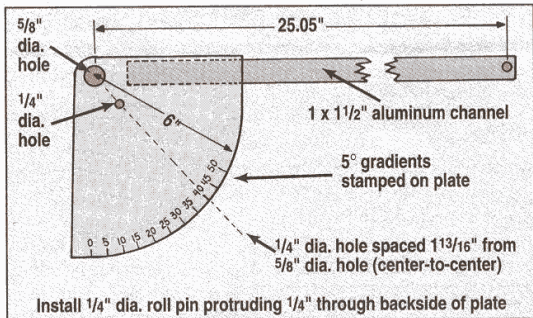
Pitch Link Check Tool

Dear Windy,

To check the serviceability of the Cobra's pitch link elastomeric rod end bearing, you have to remove the transmission cowling and disconnect the PC link on the bottom. That takes a big bite out of two manhours. We've come up with a tool that uses the upper pitch link bolt to connect through the elastomeric bearing and the pitch horn bushing where the upper pitch link is attached. It means you don't have to remove the transmission cowling to make the check.

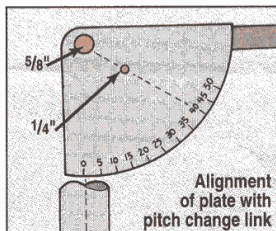
With this tool you can hold the bearing and move the pitch link, or hold the pitch link and rotate the bearing. Make the tool from 1/4-in aluminum plate, NSN 9535-00-085-4134, and 1 x 1 1/2-in aluminum channel, NSN 9540-00-006-4911.

Cut and refine your tool like this:

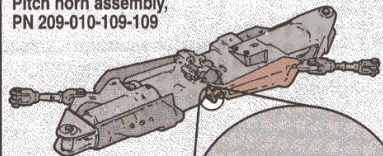


Once the tool is made, here's how to use it:

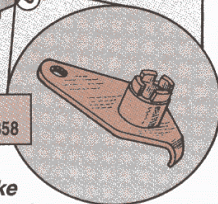
1. Insert the upper pitch link bolt through the tool.
2. Slide the pitch horn bushing over the back side of the tool and the roll pin.
3. Insert the assembly into pitch horn through the rod end bearing.
4. Tighten the bolt finger tight, making sure it engages the bushing lugs. The 1/4-in roll pin hole should line up between 35 and 40 degrees on the plate so that the 0 degree mark will be centered on the pitch change link prior to the spring scale pressure.



Pitch horn assembly, PN 209-010-109-109



Bushing assembly, NSN 3040-01-288-0858



5. Attach the spring scale to the handle of the special tool and pull 20 lbs.
6. Check the bearing rotation indicator and make sure it does not exceed 30°. If it does exceed 30°, replace the bearing.
7. Remove the tool and reassemble the pitch horn bushing and bolt.

SSG David J. Mader
AASF 2, IAARG

HERE'S A TIME-SAVING TOOL FOR YOU COBRA MECHANICS.

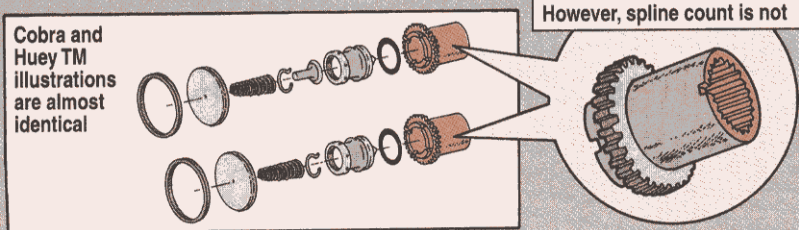
Good idea, and a real time-saver. Since the pitch link elastomeric rod end bearing and the pitch horn bushing are to be inspected every 25 hours, both inspections can be done at the same time.

Windy

Not Alike at All

It's a mistake to assume that all twins are identical.

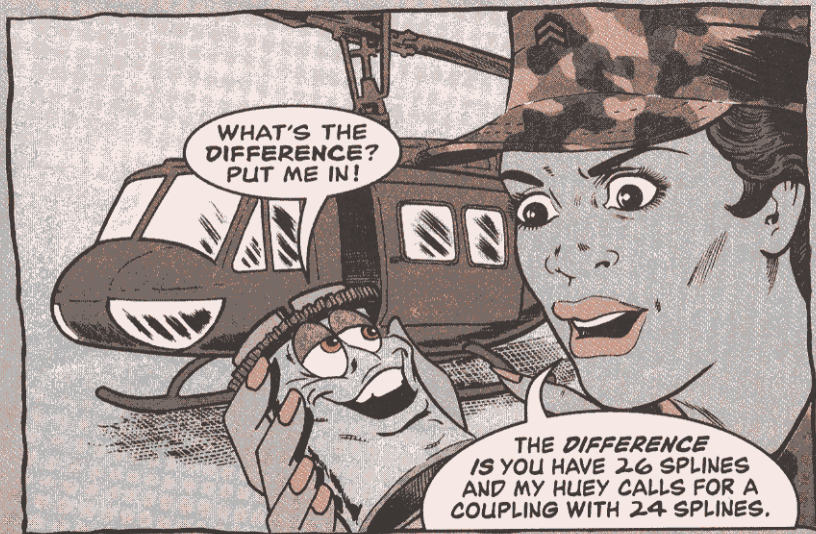
The 42° gearbox quill assembly on the Huey and Cobra look alike. And Items 1, 2, 3, 4, and 7 of Fig 89 of TM 55-1520-236-23P exactly match Items 1, 2, 3, 4, and 8 of Fig 182 in TM 55-1520-210-23P.



But the next parts in line—Item 8 for the Cobra and Item 11 for the Huey—are different. That difference could lead to disaster.

It's not easy to spot. Both fit into the same driveshaft coupling. The difference is inside. Item 8, the Cobra's spur gear, NSN 3020-00-439-5590, has 26 splines. Item 11, the Huey's spherical coupling, NSN 1615-00-791-6073, has 24.

Force the wrong one on a gearshaft and your helicopter and its crew will be in a world of hurt.



Building Blocks

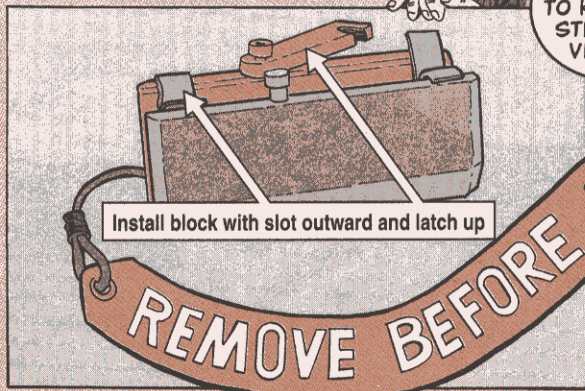
Some maintenance tasks build on each other. That's often the case with tasks that require servocylinder safety blocks.

The blocks, NSN 1730-01-264-6254, are used for safety and stability when working on the rotary-wing head.

Crew chiefs must ensure that the blocks are used and used correctly. That means they need to be installed for each job they're called for and remain installed until the job is done. That also means retracing the Equipment Condition task trail to its start.

When a block is installed, it must be put on the piston with the slot of the block outward and the latch up. Also, it is not enough just to drop the locking latch in place. You must tighten the screw to hold the latch down.

Finally, an installed block must have a *Remove Before Flight* streamer and that streamer has to be visible on the outside surface of the aircraft.



All Aircraft ...

CRASH RESCUE KIT

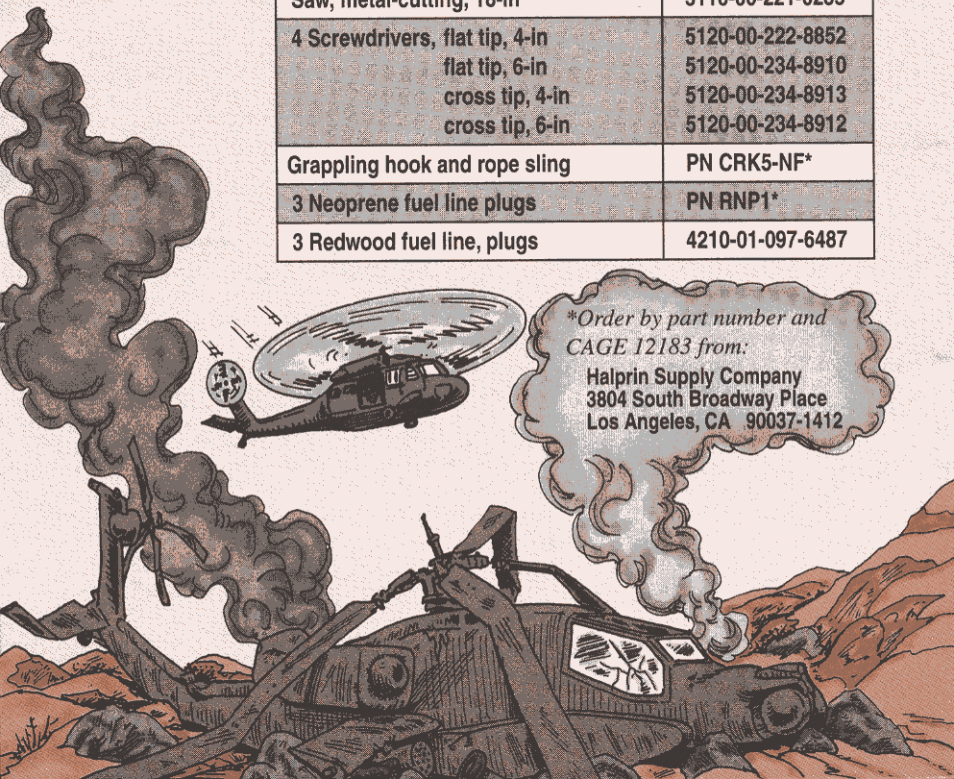
Take a close look at your Downed Aircraft Recovery Team (DART) program. Are you stressing maintenance recovery and neglecting extraction of crew members?

Make sure your crash rescue tool kit, NSN 4210-00-900-8557, is complete. Here's what should be in it:

| Item | NSN/PN |
|--|------------------|
| Cable cutter, 14-in | 5110-00-224-7055 |
| Pliers, 8-in | 5120-00-239-8251 |
| Hacksaw frame, adjustable, 8- to 12-in | 5110-00-289-9657 |
| Knife w/spare blade | 5110-00-524-6924 |
| Axe, emergency escape and rescue | 4240-00-169-5711 |
| Vise grips, 10-in | 5120-01-176-6931 |
| 3 Hacksaw blades, 10-in | 5110-00-277-4588 |
| Saw, metal-cutting, 18-in | 5110-00-221-0235 |
| 4 Screwdrivers, flat tip, 4-in | 5120-00-222-8852 |
| flat tip, 6-in | 5120-00-234-8910 |
| cross tip, 4-in | 5120-00-234-8913 |
| cross tip, 6-in | 5120-00-234-8912 |
| Grappling hook and rope sling | PN CRK5-NF* |
| 3 Neoprene fuel line plugs | PN RNP1* |
| 3 Redwood fuel line, plugs | 4210-01-097-6487 |

**Order by part number and CAGE 12183 from:*

Halprin Supply Company
3804 South Broadway Place
Los Angeles, CA 90037-1412



It's an O-Ring Thing

O-rings are little, but they can cause big headaches.

The current headache comes from removing a used O-ring the wrong way.

Too many of you are using the snatch and grab technique. What the heck, you figure, the O-ring's shot, so why does it matter how I remove it?

It matters.

Removing it incorrectly can damage the groove the O-ring sits in. Once that surface is damaged, you can replace O-rings until the cows come home and you'll still have leaks, because you can't get a good seal.

To remove an O-ring right, you have to make and use a removal hook and an extractor tool. There are several types of extractors and your toolbox should contain them all. The best are made from soft metal like brass or aluminum, but plastic and wood will work.

Some of the common extractors are wedge, pull, push and spoon. Page 4-82 of TM 1-1500-204-23-2 shows you what these tools look like and will give you an idea how to make them.

Once an O-ring is removed, clean and inspect the groove surface and the area around it. Unless your TM tells you differently, clean the area with a lint-free cloth and P-D-680 Type III cleaning solvent. NSN 6850-01-377-1808 brings one quart. Make sure the groove surface is not marred or scratched.

Check all new O-rings before you install them. Look for blemishes, abrasions, or cuts. Keep in mind, an O-ring that looks perfect may still have slight flaws. Carefully give it the once-over...then do it again.

Make sure you get the right size. O-ring size varies in such small degree that your eye will deceive you. Match the information on the package to the information in your TM.

Don't match a new O-ring to the one you just removed. The old one may have been wrong to begin with and use may have changed its shape.

Never use an O-ring from an assortment kit. All aircraft jobs call for a specific O-ring.

When you install a new O-ring, don't roll or twist it into place. Keep the position of the O-ring mold line constant. After the O-ring is in place, make sure it is not twisted.

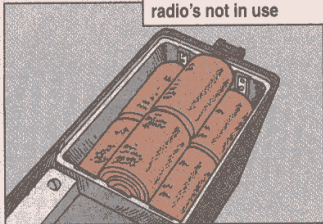
Stay in Control with PM



PM's the way to stay in control of your AN/GRA-39 radio set control group. The place to start is the battery box.

When the C-2328 remote and C-2329 local control units aren't being used, remove the six D-cell batteries. If you don't, they can leak and corrode your set.

Remove batteries when radio's not in use



Never try to stretch battery life. If any battery is swelling, bulging or leaking, replace 'em all. They're good for about 140 hours of operation in the

local unit and 50 hours of operation in the remote unit.

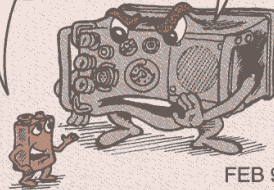
Keep six extra batteries on hand for each unit



And **never** try to use a single 9-volt battery in place of the six D-cells. The 9-volt battery won't fit without a modification that's not authorized.

HOW ABOUT ME?

NOPE! 9-VOLT BATTERIES ARE A NO-NO.

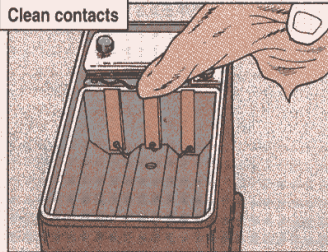


SOUNDS INTERESTING. TELL ME MORE.

In any case, the D-cell batteries last 15 times longer than the 9-volt.

After you've checked out the batteries, take a look at the electrical contacts to make sure they're clean. If they're corroded or dull, shine 'em up with a polishing cloth, NSN 7920-00-985-6849, or isopropyl alcohol, NSN 6810-00-753-4993, and a lint-free cloth.

Clean contacts

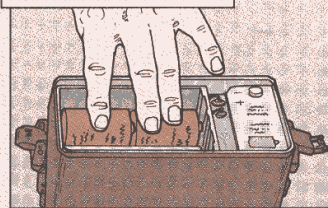


Sometimes contact strips work loose. Any slipping or sliding will make them

break contact with the batteries. Get your unit repairer to glue down loose contacts.

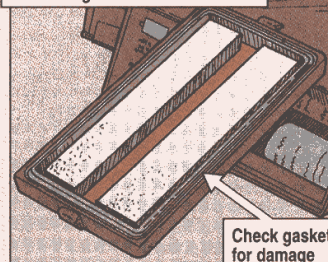
Install new batteries two at a time, rolling them into place so they'll fit snugly. Correct polarity is important, too. Polarity is printed on the case to prevent mistakes.

Roll in two batteries at a time



If the batteries are still loose in the battery box, cut out a 5/8-in wide notch down the center of the pad inside the battery box cover. The notch'll help hold the batteries in place. If the pad, NSN 9320-00-626-8972, is missing or worn, report it.

Cut 5/8-in groove to hold batteries



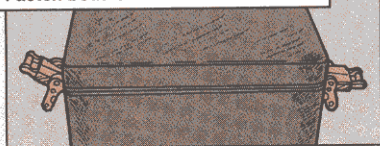
Check gasket for damage

Check out the cover gasket, NSN 5330-00-930-6169. If it's cracked, flattened or missing, moisture can get in.

There's only one right way to close the battery cover. Lay the cover flat on the batteries and press down until it's seated. Then fasten both latches at the same time.

Latching one side at a time can crack the case or cause batteries to slip and lose contact.

Fasten both latches at the same time

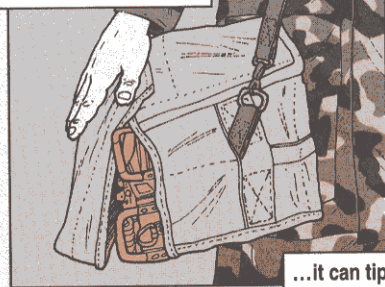


Finally, after you're ready to put the AN/GRA-39 in its canvas carrying

case, NSN 5895-00-889-3856, handle it carefully.

Because of the way the carrying strap is attached, the case can tip sideways and allow the radio to fall out.

Be careful with case...



Fasten the case correctly and keep a firm hold on it to keep the radio inside.

PS END

SINGGARS...

I Need a Cable

Dear Half-Mast,

Is there a substitute cable we can use for the SINGGARS AN/VRC-92A's retransmit cable? The CX-13298 is too rigid to connect between the A and B radios.

Also, are there cable extensions we can use for the microphone and loudspeakers? That would make things easier when we're setting up.

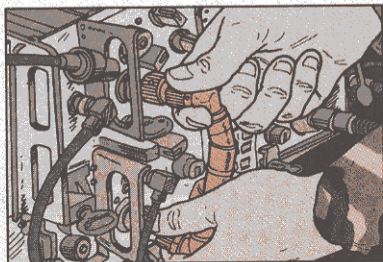
SGT G.I.

Dear Sergeant G.I.,

No problem. In place of the CX-13298, use the W-4 cable, NSN 5995-01-310-0335. It's Item 12 on Page B-4 in TM 11-5820-890-10-8.

For cable extensions, use CX-13292/VRC. Get a 50-ft cable with NSN 5995-01-358-1078 and a 100-ft cable with NSN 5995-01-382-6869.

Half-Mast

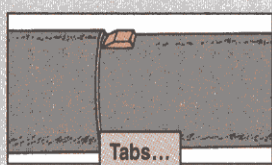


Modification Needed

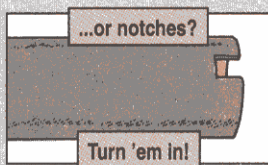


CECOM Safety-of-Use message (SOUM) 92-02-01 on the OE-254 antenna, NSN 5985-01-063-1574, came out when many units were deployed to Operation Desert Storm, so lots of folks missed it. Here's the scoop:

Before you turn in the antenna mast section poles for MWO 11-5985-357-30-1, inspect them for stress cracks at the squared corners of the notch. If poles have any cracks that extend more than 2 1/2 inches from the bottom of the pole, they can't be modified, so turn 'em in and get new ones.



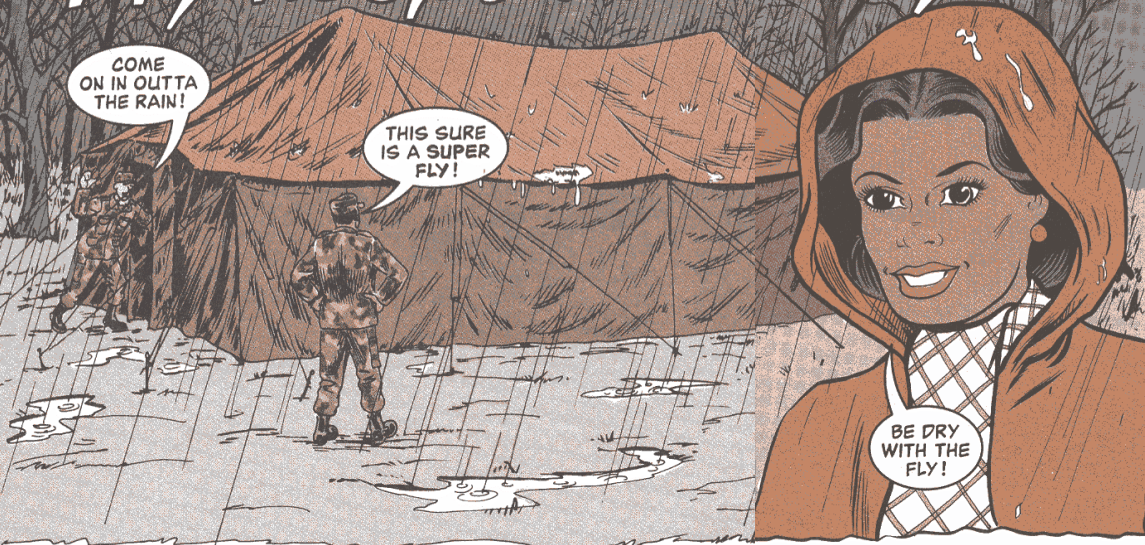
Next, check to see if any of those good mast sections still have tabs and notches. If so, turn them in to DS for the MWO.



The finished mast will be one section shorter, but will transmit as well as ever. The MWO will make the antenna system last longer, too.

If support doesn't have a copy of the MWO, they can get it from the local CECOM Logistics Assistance Representative or call the CECOM Safety Office at DSN 992-0084, (908) 532-0084, Ext 6410 or 6407.

Fly Keeps You Dry



The new rain fly for the GP medium tent makes for easier living in the field.

The fly, NSN 8340-01-412-9698, shields the top of the tent. The tent stays cooler in summer, has fewer condensation problems, and lasts longer. Even if your tent leaks, the fly will keep you dry.

The fly mounts on the tent's center poles and has its own tiedowns. Mounting instructions come with it.

Other Tents

Currently, this is the only rain fly available for Army GP tents. If your tents are cotton duck (cotton has a vis-

ible weave, polyester doesn't), see Chap 3 and 14 of FM 10-16 on how to stop leaks. For polyester tents, fix seam leaks like this:

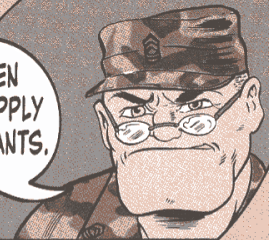
- ✿ Get a gallon of seam sealant, NSN 8030-01-350-4984. That's more than enough for two small tents or a large one.
- ✿ Also get a 1-in wide paint brush, rags, and small disposable containers with lids.
- ✿ Do the job outside so you'll have plenty of fresh air. If you do more than one tent at a time, wear a respirator.
- ✿ Clean the areas you will be doctoring with mild detergent and water. Let them air dry.

- ✿ Spread the tent on a flat surface.
- ✿ Pour equal amounts of sealant into the small containers and put their lids on. That keeps the sealant from thickening before you're ready to use it.
- ✿ Brush a light coat only on the seam stitching, flaps, and webbing. Let it dry for 30 minutes.
- ✿ Put on a second light coat. Two light coats are better than one heavy one.

You're done.

Do not use sealant on the whole tent or on cotton duck tents. Large amounts of the sealant can be flammable, but it's OK just for seams. The sealant is not made for cotton.

LISTEN UP, SUPPLY SERGEANTS.



Supply sergeants, when you order the desert camouflage uniform (DCU), leave out the "no substitution" remark on your request.

The old six-color DCUs aren't being used up. They're still authorized, even though the new three-color DCUs are in the system, too.

Stocks of the old DCUs will soon be gone and you'll automatically get the three-color DCUs.

Until then, soldiers can wear either uniform.

To deplete stocks of the old DCUs, S9T has dropped prices 70 percent, too. If you have questions on what's available and its price, call S9T at DSN 444-7019.

HMIS Pub Revised

AR 700-141, Hazardous Materials Information System (HMIS), is being revised. If your unit needs this pub, be sure to review your DA Form 12-09E, block 2538 requirements. If you aren't signed up to get copies through initial distribution, get your pubs clerk to add it using the electronic pubs ordering system.

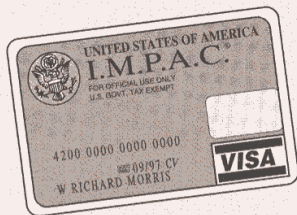
Charge Card Guidelines

To get the low-down on using your government credit card, get a copy of DA Msg DALO-SMP 071222Z Jun 96. It lays out the new supply policy for the International Merchant Purchase Authorization Card (IMPAC).

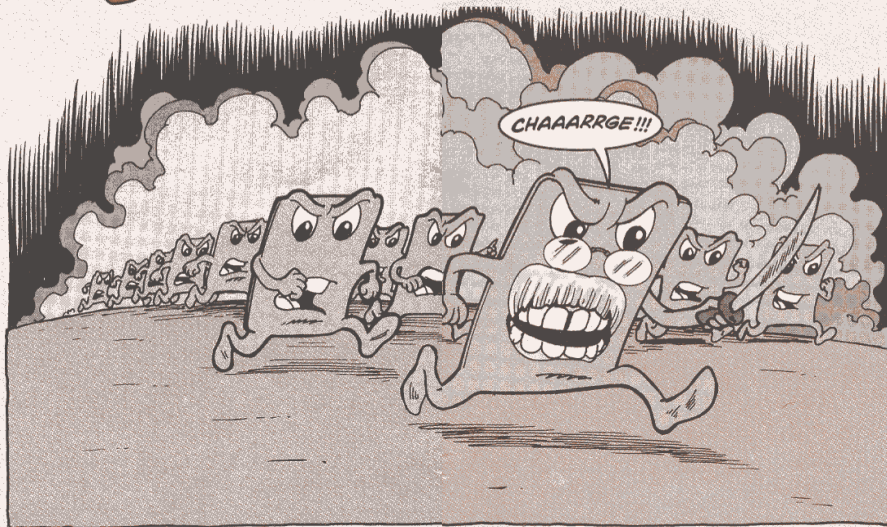
In the meantime, here are some general guidelines for using the card:

☞ The limit on any purchase is \$2,500. Of course, units can set their own lower limits for individual monthly purchases.

☞ The card is imprinted with "U.S. Gov't Tax Exempt", but it's each cardholder's responsibility to inform each merchant that a purchase is not subject to state or local sales tax.



☞ Unit commanders or activity chiefs must designate in writing the individuals who can approve local purchase requests. They also verify any requests sent to the cardholder for purchase.



☞ The cardholder will not make a local purchase without a documented requirement from the requester. The cardholder also must make sure funds are available.

☞ The cardholder gives the property book officer (PBO) copies of all purchase receipts and invoices within five days of the purchase.

☞ The PBO screens the receipts to establish required property accountability.

What You Can Buy

Unit cardholders can use the credit card for items like:

☞ Any non-catalogued, non-stocked, or non-standard item. These items aren't on the AMDF.

cardholder has to do with the monthly statement of account (SOA). Here's the procedure:

Each cardholder is required to fill in additional information on the SOA, such as a brief description of the item purchased and the organization's accounting code. There's also space to note any billing errors.

After receiving the SOA, the cardholder has three working days to check the statement and attach copies of the sales receipts or delivery tickets. The cardholder then signs the statement on the back and forwards it to the approving official at the top of the SOA.

If the cardholder is scheduled for TDY or extended leave, he must forward all signed receipts, delivery tickets and credit vouchers to the approving official. The approving official will be responsible for completing the statement. The cardholder must sign a copy of the statement when he returns from TDY or leave.

See Para 4-20 of AR 710-2 for more information on local purchase.

If you need a copy of the DA message, see your local supply LAR or write to Half-Mast.

☞ Any item on the AMDF with an acquisition advice code (AAC) of K or L.

☞ An NSN rejected by the wholesale system with a status/rejection code of CK, CP, or CW.

☞ Any item needed to save human lives or to relieve human suffering.

☞ Items needed to repair emergency equipment such as ambulances or fire-fighting equipment.

☞ Repair parts and supplies needed to repair grounded Army aircraft or Army motor vehicles disabled on the roadside.

Monthly Statement

The DA message does not cover what the

POL ...

We've Got Answers

THE ARMY PETROLEUM CENTER FOLKS CAN ANSWER MOST OF YOUR QUESTIONS ON THINGS SUCH AS...

- ✓ What kind of oil or lube is best for your equipment
- ✓ How to test or recycle antifreeze
- ✓ Which hydraulic fluids to use
- ✓ How to remove moisture from fuels and fungus from fuel tanks

TO GET ANSWERS, WRITE...

US Army Petroleum Center
54 M Ave, Suite 9
ATTN: SATPC-L
New Cumberland, PA 17070-5008

Or call for technical assistance in specific areas.

| Area | Commercial (717) 770- | DSN 977- |
|--|--------------------------|-------------|
| Operations (Policy and procedures of petroleum operations) | 8580/7040/6752 | |
| Quality (Testing, disposition, shelf life) | 6053/4392 | |
| Packaged products | 5868 | |
| Fuel requirements (Type, quantity, delivery) | 7247 | |
| Coal | 7109 | |
| Identaplates, SF 149 (Credit card) | 4993 | |
| Facilities, Equipment | 6445 | |
| Engineering | 5582 | |
| Environmental | 5873 | |

Hands-On HAZMAT Training

Commanders, you can get training on the latest procedures for managing hazardous material from the Center for Environmental Initiatives and Hands-On Training at Ft Sill, OK.

Training includes:

- Developing and implementing environmental management systems

- Control of environmental pollution
- HAZMAT and user compliance

To get the latest catalog of training courses, call, (405) 442-2111 or DSN 639-2111. Fax your request to (405) 442-7209 or DSN 639-7209. Send e-mail to:

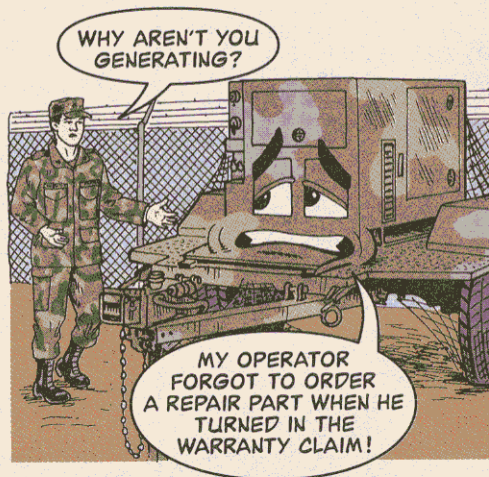
ceihot@sill-emh1.army.mil

Order Repair Parts Now!

The warranty on your 5- through 60-KW tactical quiet generators (TQG) gives equipment contractors up to 60 days to decide if a part should be returned for an inspection, another 45 days to validate the claim and then 60 more days to provide the new part.

That means your generator could be NMC for more than five months unless you also order a replacement part at the same time you file the warranty claim.

If you're having trouble getting any repair parts in—whether they're under warranty or not—contact the appropriate DLA center:

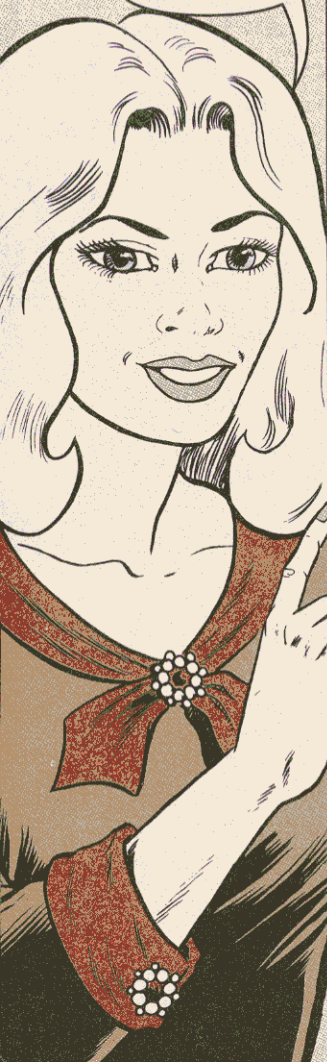


| Center | Telephone | Fax | E-Mail |
|--------|-------------------------------------|-------------------------------------|----------------------|
| S9C | DSN 850-3191 Comm (614) 692-3191 | DSN 850-1374 Comm (614) 692-1374 | esoc@dsc.dla.mil |
| S9E | DSN 986-6161 Comm (513) 296-6161 | DSN 986-6493 Comm (513) 296-6493 | esoc@desc.dla.mil |
| S9G | DSN 695-4865 Comm (804) 279-4865 | DSN 695-5277 Comm (804) 279-5277 | esocsar@dscr.dla.mil |
| S9I | DSN 442-2336 Comm (215) 697-2336 | DSN 442-9246 Comm (215) 697-9246 | discoce@disc.dla.mil |

Get Smaller Quantities of HAZMAT

Do you often order more than you need of a hazardous material because there's no NSN for smaller quantities? If so, the Logistics Integration Agency (LIA) wants to know so smaller sizes can be made available through the Army supply system. Drop a line giving the item and NSN to: LIA, 54 M Ave, Suite 4, ATTN: LOIA-FS, New Cumberland, PA 17070-5007. Or call (717) 770-7769 or DSN 977-7769, or fax (717) 770-6702 or DSN 977-6702.

Supply Excellence Awards



HERE ARE
THE WINNERS
AND RUNNERS-UP
IN THE FY96
ARMY SUPPLY
EXCELLENCE
COMPETITION.

ACTIVE ARMY MTO&E UNITS

Separate Company

Winner—2d Maint Co (TMDE), Camp Carroll, Korea

Runner-up—19th Signal Co, Ft Huachuca, AZ

Organic Company

Winner—D Co (Tank), 1st Bn, 4th Inf Regt, Hohenfels, Germany

Runner-up—HHD, A Co, 302d FSB, 2d Inf Div, Camp Casey, Korea

Battalion

Winner—202d MI Bn, Ft Gordon, GA

Runner-up—28th Trans Bn, Sandhofen, Germany

ACTIVE ARMY TDA ORGANIZATIONS

Company

Winner—USA NCO Academy, Ft Richardson, AK

Runner-up—HHC, US Army Garrison, Ft Hood, TX

Battalion

Winner—Madigan Army Medical Center, Ft Lewis, WA

Runner-up—1st Sqdn, 16th Cav Regt, Ft Knox, KY

ARMY RESERVE MTO&E UNITS

Company

Winner—55th Support Center, Ft Belvoir, VA

Runner-up—HQ Det, 341st Med Bn (EVAC), Mesquite, TX

Battalion

Winner—389th Engr Cbt Bn (HVY), Ft Riley, KS

Runner-up—926th Engr Cbt Bn (HVY), Birmingham, AL

ARMY RESERVE TDA ORGANIZATIONS

Company

Winner—Equipment Consolidation Site #33, Ft Riley, KS

Runner-up—6253d USA Hospital (USARC), Santa Rosa, CA

Battalion

Winner—1st Bn, 353d Regt, El Dorado, AR

ARMY NATIONAL GUARD MTO&E UNITS

Separate Company

Winner—141st Trans Co, Boone, NC

Runner-up—HHC, 2d Bde, 34th Inf Div, Boone, IA

Organic Company

Winner—Co B, 1st Bn, 635th Armor, Topeka, KS

Runner-up—Co D, 1st Bn, 133d Inf, Dubuque, IA

Battalion

Winner—130th Engr Cbt Bn, Veja Baja, PR

Runner-up—1st Bn, 150th Armor, Bluefield, WV

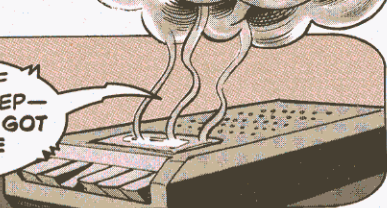
ARMY NATIONAL GUARD TDA ORGANIZATIONS

Company

Winner—90th Troop Command, Oklahoma City, OK

Runner-up—Det 4, HQ STARC, Ft Custer, MI

YOUR MISSION, IF YOU DECIDE TO ACCEPT—
YIKES! CONNIE, I'VE GOT A MAINTENANCE PROBLEM!



MKT Taillights

Change 13 to TM 10-7360-206-13 deadlines the mobile kitchen trailer (MKT) when its taillight assemblies are not operating properly. It's a NOT MISSION CAPABLE fault in the operator's PMCS chart. If you find any broken lenses, burned-out bulbs, or other damage, get them repaired ASAP.

M939A2 Tire Chains

In our Nov 96 issue (PS 528, Page 21), we said that M939A2-series 5-ton trucks did not need chains for winter driving. What we should have said is that TACOM has authorized chains for use on the intermediate axle only, just as on M939A1-series trucks.

DIP Light Gasket

Gaskets for the gauge lights on the driver's instrument panel (DIP) of your M1/IPM1 and M1A1 tanks come with NSN 5330-01-311-4631. Item 14 in Fig 104 of TMs 9-2350-255-24P-1 and 9-2350-264-24P-1 lists a gasket that's too thick. Make a note until the TM is updated.

M88A1 Hose Assembly

Use NSN 4720-01-041-3375 to order the main fuel line/fuel injector return hose assembly for your M88A1 recovery vehicle's ground hop kit. The NSN listed for Item 139 on Page B-18 of TM 9-2350-256-20 is wrong. Make a note until the TM is updated.

Bradley Repair Parts

Change 1 to TM 9-2350-284-24P-2 left out two important repair parts for your M2A2/M3A2 Bradley: digital electronic control assembly (DECA), NSN 1005-01-411-8094, SMR code is PAOFD; and handstations cable/wiring harness (2W412), part number 12292803-12, CAGE 19207. Its SMR code is PAOZZ. Make a note of both items until the next TM change.

M1-Series Tank Hotline

General Dynamics Land Systems now has a special hotline service for M1-series tank problems. Just call 1-800-989-TANK. The hotline is manned from 0700 to 1800 (EST) Monday through Friday. An answering machine takes your calls during non-duty hours.

New CAM Buzzer

The chemical agent monitor (CAM) now has a buzzer to alert you to chemical agent. The buzzer connects to the CAM's rear connector and goes off when the CAM shows two or more bars. It uses a 9-volt battery, NSN 6135-00-900-2139. Order the buzzer with NSN 6350-01-394-9916.

FMTV Headlamp Change

The replacement headlight lamp for FMTVs that we identified in PS 528 is wrong. Use NSN 6240-01-420-8320 to get a 12-volt lamp with pigtail connectors. The lamp in PS 528, NSN 6240-00-752-2424, does not have the connectors.

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

Would You Stake Your Life *right now* on the Condition of Your Equipment?

MANY SMALL OBJECTS
START IN A POCKET...



...AND
END IN
AN ENGINE

PREVENT FOD—KEEP YOUR POCKETS
EMPTY