

Issue 664

PS

March
2008

THE PREVENTIVE MAINTENANCE MONTHLY

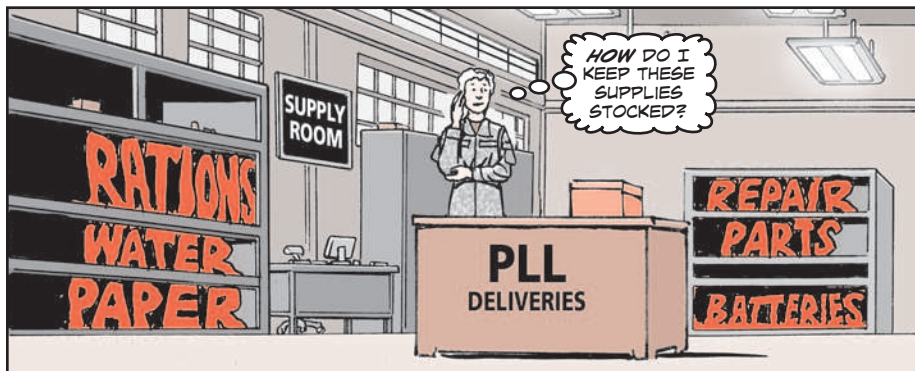
TB 43-PS-664

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I SURE HOPE THE
RAPID RESPONSE
GUYS GET HERE
SOON!

FIND OUT
IF THEY DO —
SEE PAGE 27



Supply Requires Discipline



No, we aren't talking about punishment. We are talking about really believing in and practicing fundamental supply procedures.

If your unit wants rations, ammo, fuel, water—any of a number of things it needs to complete its operational mission—it must practice supply discipline.

It's human nature to pay attention to the operational side of a unit—after all that's where the action is, that's where missions are completed. That's where the outward signs of success occur. But operational success will not be continuous if supplies don't keep pace with operations.

One command sergeant major put it this way: "...failure can be attributed to one of three causes: lack of training, lack of resources, or lack of motivation."

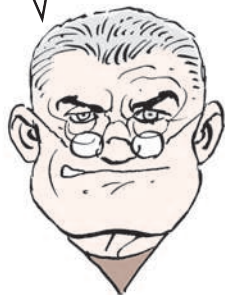
He also said that when training, resources and motivation are properly combined they can produce delicious success.

Remember that the condition of your equipment and the state of your supply discipline depend on your attention.

Can you stake the life of your unit, and the life of your buddy's unit, right now, on your supply discipline?

COMMANDERS AND LEADERS AT ALL LEVELS MUST NOT GIVE IN TO THE TENDENCY TO PUSH SUPPLY AND MAINTENANCE MATTERS TO THE SIDE.

WITHOUT COMMAND EMPHASIS, SUPPLY AND MAINTENANCE WITHER FROM LACK OF RESOURCES AND MOTIVATION.



PS**THE
PREVENTIVE
MAINTENANCE
MONTHLY****ISSUE 664 MARCH 2008**

TB 43-PS-664, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

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M2A3/M3A3 Bradley Hatch Periscope
M113-Series FOV Pivot Steer Linkage
M88A1 Recovery Vehicle Commander's Seat
M109A6 Paladin Gunner's Escape Hatch Lubing

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HMMWV Winch Kit
HMMWV Spare Tire Carrier
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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:

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PS, the Preventive Maintenance Monthly
USAMC LOGSA (AMXLS-AM)
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Redstone Arsenal, AL 35898

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By order of the Secretary of the Army:

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Official:

Joyce E. Morrow

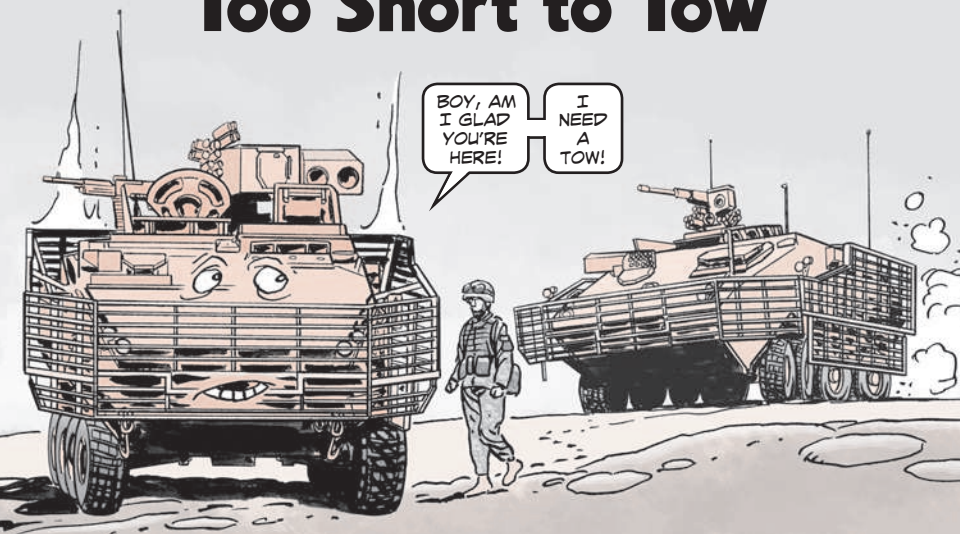
JOYCE E. MORROW
Administrative Assistant to the Secretary of the Army

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Too Short to Tow



BUT YOUR
TOW BAR IS
TOO SHORT!

I CAN'T DO
IT WITHOUT
DAMAGING
YOUR SLAT
ARMOR!



Dear Half-Mast,

I need some help with a tow bar for our Strykers. We're stationed in Iraq, so all our vehicles have slat armor. Our problem is that the regular tow bar, NSN 2540-00-936-7801, is too short. When we try to use it, the tow bar damages the slat armor.

Any ideas?

SSG B.J.H.

Dear Sergeant B.J.H.,

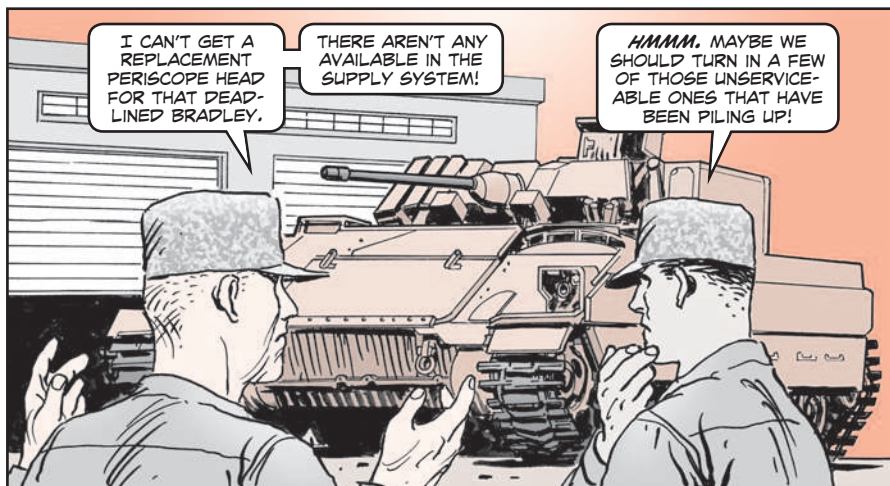
You bet! There's a new, two-piece tow bar available for Strykers with slat armor. The tow bar, NSN 2540-01-517-9227, measures 9-ft 5-in long, so it won't interfere with the slat armor.

To attach the tow bar to your Stryker, you'll also need the items in this table.

You should already have the pintle and lock pin. The pintle is part of your COEI and the lock pins are listed with your BII.

Half-Mast

Item	NSN	Qty
Pintle	2540-00-776-0103	1
Towing kit	2530-20-001-0650	1
Clevis	5340-01-051-3609	2
Headed pin	5315-01-035-5307	2
Lock pin	5315-00-350-4326	2

DON'T FORGET YOUR RETURNS!

Mechanics, what you do with your Bradley's unserviceable assets can have a big impact on whether or not repair parts are available when they're needed.

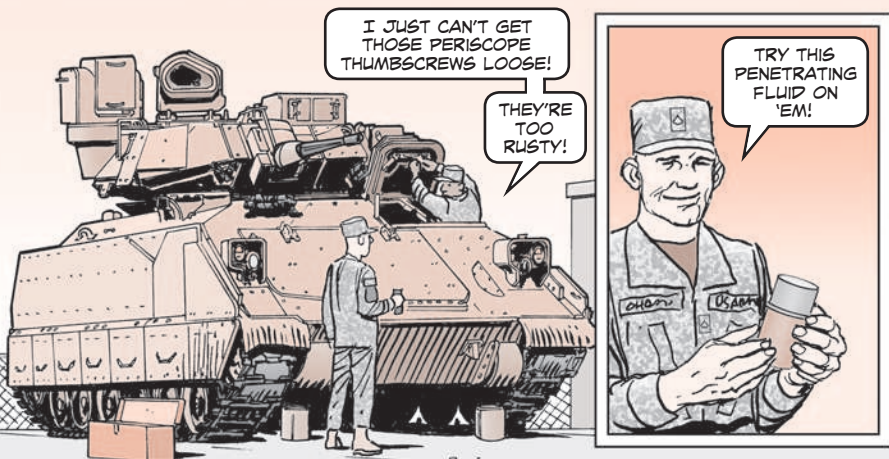
If you don't turn them in, the depot won't have them to repair. Pretty soon, the supply pipeline dries up. That means your equipment is NMC, new replacement parts have to be bought, and the Army's out a whole lot of money.

So, if you have any weapon system code E7 items on hand that are Condition Code F (unserviceable/repairable), turn 'em in now!

These items are in especially short supply:

Item	NSN	Part Number	Recoverability Code
TOW II basic sight assembly (BSA)	5855-01-217-2353	13160758	D
Hybrid BSA	5855-01-389-8884	13265516	D
TOW II periscope head assembly	1240-01-256-6913	13225608	D
Bradley eyesafe laser rangefinder (BELRF) periscope head assembly	1240-01-463-4581	13225608-1	D
TOW II integrated sight unit (ISU)	1240-01-216-6331	13160659	A
BELRF ISU	1240-01-425-5164	13492497	D

RUST REMOVAL MADE EASY



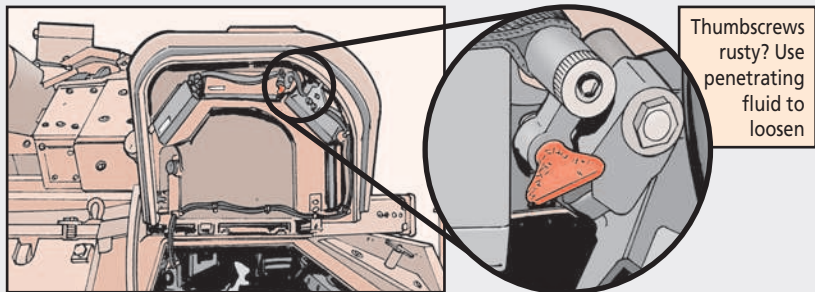
A little rust on the driver's hatch periscope thumbscrews can end up being a nightmare.

Those thumbscrews are supposed to make removing the periscope to install the night sight an easy task. But if they get rusty enough from rainwater and condensation, they won't move. Even worse, if you use a wrench to try to unscrew 'em, they snap off.

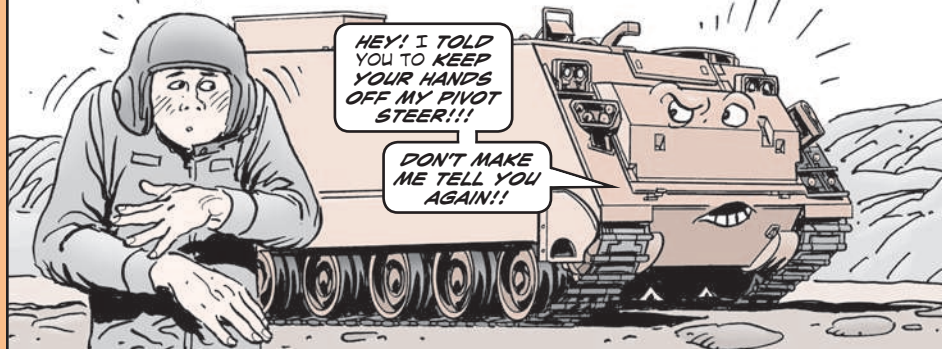
Then your mechanic has to drill them out before new thumbscrews can be installed. And the whole thing starts over again.

If you've got stuck thumbscrews, try spraying them with some penetrating fluid before trying to loosen them. NSN 6850-00-973-9091 brings a case of 12, 10-oz spray cans.

Once you've got the rusty thumbscrews out, get replacements with NSN 5305-01-106-7961.

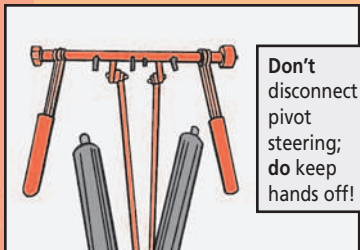
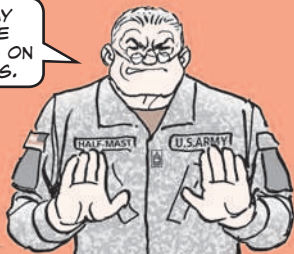


PIVOT STEER REMINDER



DRIVERS, STAY CLEAR OF THE PIVOT STEERING ON YOUR CARRIERS.

KEEP IT CONNECTED AND KEEP YOUR HANDS OFF!



Don't disconnect pivot steering; do keep hands off!

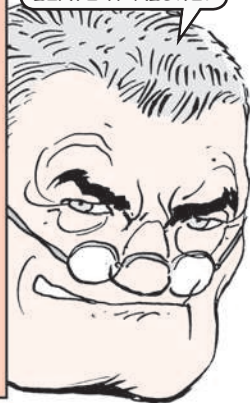
HERE'S WHY...



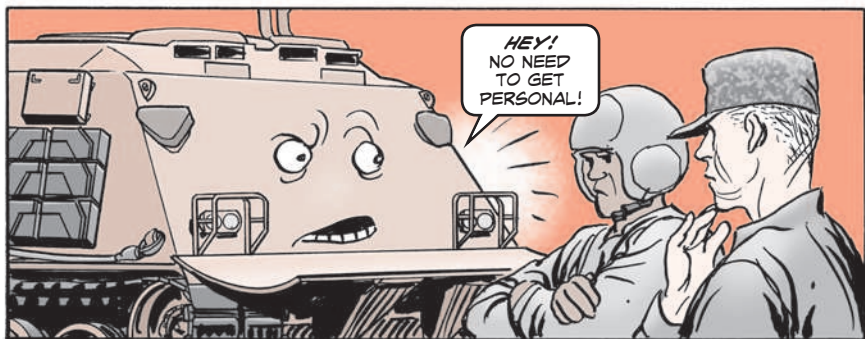
PS 664

- Because the carriers no longer have swim capability, you don't need pivot steering for moving around in the water. That's always been the main use of pivot steering.
- U-joints and the transmission case break when pivot steering is used while the carrier is moving. Even at speeds under 15 mph, pivot steering tears up U-joints, the transmission and differential.
- To prevent damage and injuries, some mechanics disconnect the pivot steering controls. That's no good, because a loose horizontal rod can jam the steering laterals. Jammed laterals mean no control over the vehicle.

SO DO YOURSELF AND OTHERS A BIG FAVOR: LEAVE THE PIVOT STEERING CONNECTED. THEN, LEAVE IT ALONE.



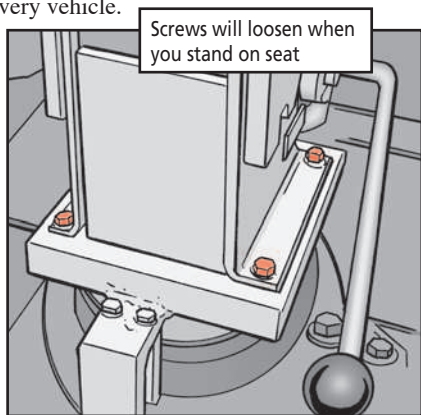
Taking a Stand



It's usually a good idea to pick and choose the places where you want to take a stand. Unfortunately, you don't have a whole lot of choice when it comes to the commander's seat on your M88A1 recovery vehicle.

You need to stand on the seat in order to use the .50 cal machine gun. But that puts a lot of wear and tear on the screws, NSN 5305-00-269-3234, that attach the seat's subbase assembly to its pedestal assembly. Enough stress can snap a screw or strip its threads.

Since you need to use the seat to take a stand, make sure you check the screws periodically. If they begin to loosen, tighten them up. If you need a new lock washer to go with the screw, use NSN 5310-00-959-4675. That NSN brings 100 lock washers.



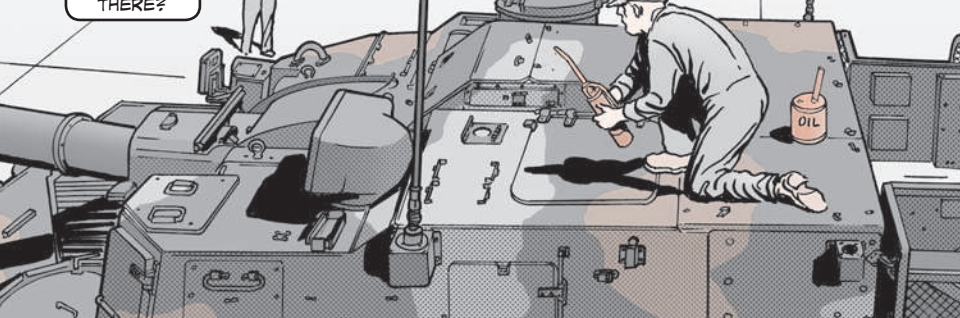
M109A6
Paladin...

DON'T LET HATCH ESCAPE ATTENTION

HEY, WHAT
ARE YOU
DOING UP
THERE?

I'M LUBING THE
ESCAPE HATCH ON
MY PALADIN.

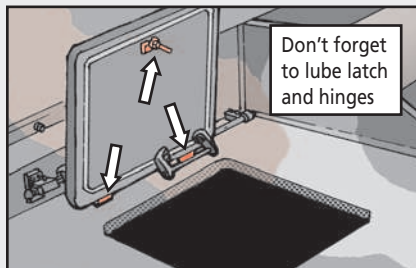
I WANT TO MAKE
SURE IT OPENS IF
I NEED IT!



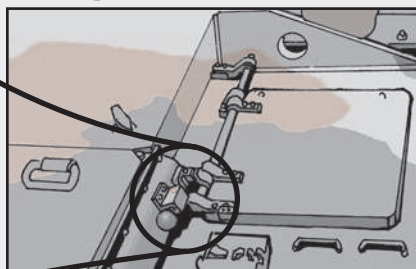
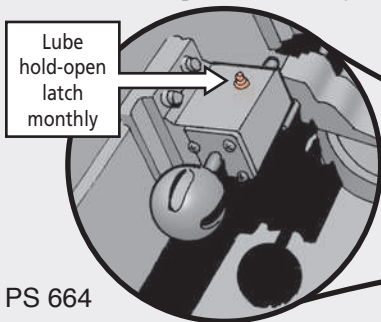
If there's a fire in the cab of your Paladin, you need to get out **NOW**, gunner! But it'll be slow going if you let the hinges, handle and hold-open latch on the gunner's escape hatch escape your attention!

Without proper lube, the hinges rust and the handle sticks. If you do manage to force the hatch open, a rusty hold-open latch won't keep the heavy door out of the way while you squeeze through.

Take the time to lube the escape hatch now so you won't have to wonder if it'll open later. Quarterly, put a few drops of OE/HDO, CLP or OEA on the hinges and handle. Then, open and close the door a few times to work in the lube. Make sure you wipe up any excess oil to keep it from attracting dirt and sand.



Lube the hold-open latch monthly with a few squirts of GAA.

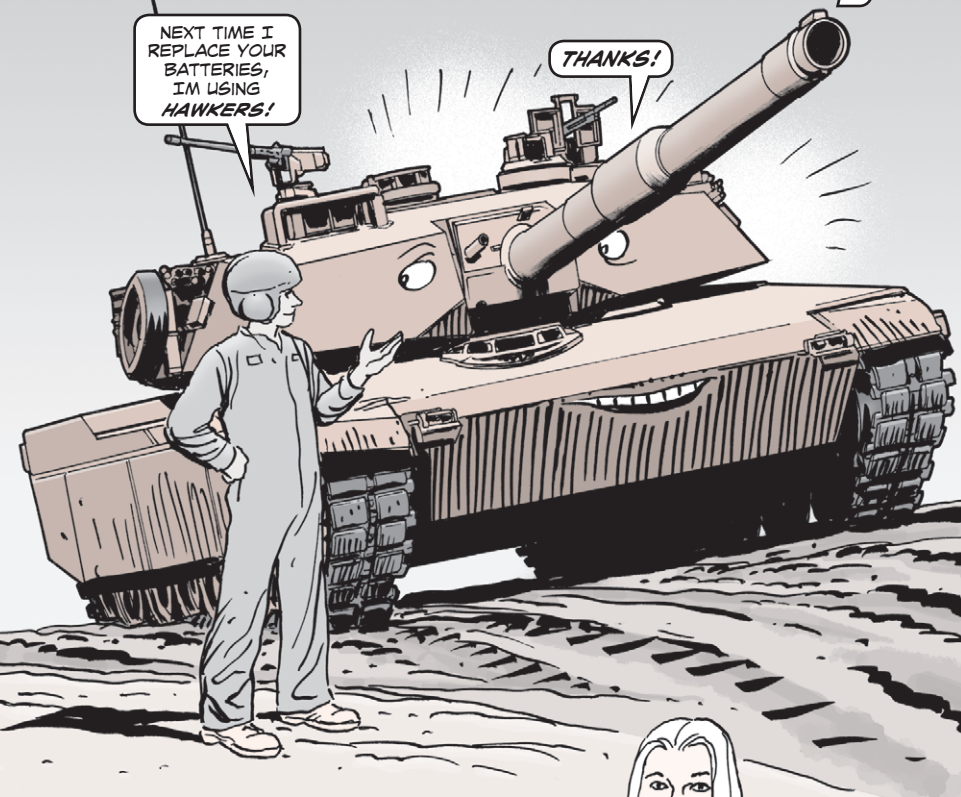


Vehicles...

Use the Hawker Battery

NEXT TIME I REPLACE YOUR BATTERIES, I'M USING HAWKERS!

THANKS!



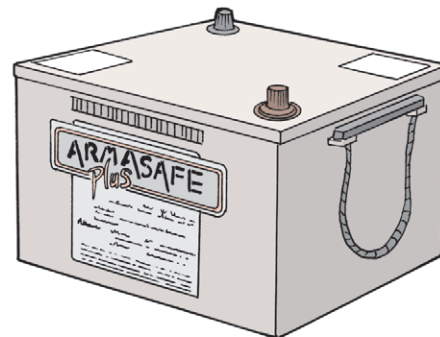
WHEN IT COMES TO BATTERIES, WE'VE GOT A MAINTENANCE-FREE SOLUTION FOR YOU—THE HAWKER!



The Hawker absorbed glass mat battery, NSN 6140-01-485-1472, is a sealed, maintenance-free battery that offers improved “deep-cycle” performance. It costs more than the 6TMF—\$317 vs. \$125—but has a longer service life. That should save you dollars in the long run.

Hawkers can be stored for up to 30 months. And if they’re re-charged every six months while in storage, they’ll last almost indefinitely.

Order the Hawker battery using NSN 6140-01-485-1472



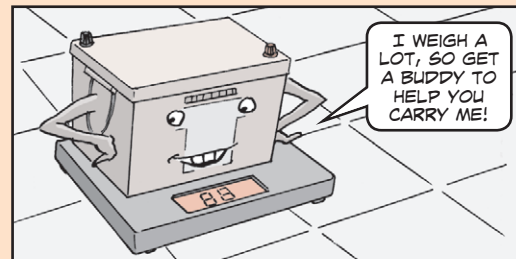
Are You an Authorized User?

TARDEC’s Team Power officially approved the Hawker battery as a substitute for 6TL, 6TN and 6TMF batteries in all combat and wheeled vehicles in SWA. Hawker is approved for use in M1-series tanks, the Stryker FOV and M915 FOV trucks at any location. And **with your commander’s approval**, you can use it in other vehicles, too.

Before You Install

There are a few things you need to know **before** Hawker batteries can be installed:

- Hawker batteries weigh approximately 88 pounds. That’s roughly 16 pounds heavier than a standard 6TMF battery and exceeds the single soldier lift/carry limitations. So get a buddy to help you carry it. Be careful when handling the Hawker to prevent injury.
- Check the open circuit voltage (OCV) of Hawker batteries before installing them in your vehicle.



IF MY OPEN CIRCUIT VOLTAGE IS LESS THAN 12.8 VOLTS, GIVE ME A GOOD CHARGE **BEFORE** USING ME.



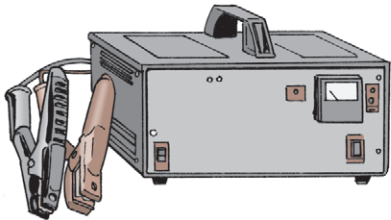
The technology built into Hawkers allows them to be recharged to full service from a fully discharged state multiple times. It comes 90% charged, sealed and air transportable as non-hazardous material.

Battery chargers designed for these batteries include NSNs 6130-01-398-6951, 6130-01-500-3401, 6130-01-532-7711, and 6130-01-518-7866. Other chargers can be used, too, but some chargers have been known to overcharge these batteries, so close monitoring is vital during the first two hours.

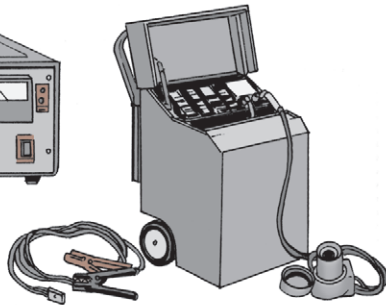


TRY TO USE A BATTERY CHARGER DESIGNED FOR HAWKERS, SUCH AS THESE...

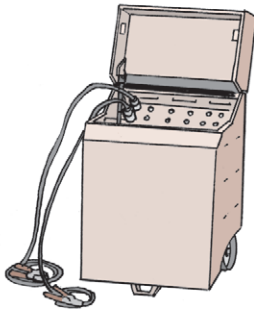
NSN 6130-01-398-6951



NSN 6130-01-500-3401



NSN 6130-01-532-7711



NSN 6130-01-518-7866

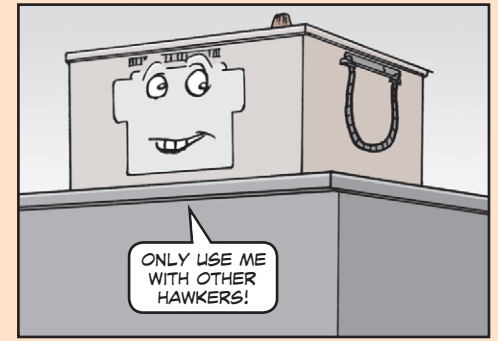


Be on the lookout for heat buildup. That's a sure sign that the battery is being overcharged. If the battery gets too hot, stop the charging and do not use that particular charger on Hawker batteries in the future.

• **Never** mix Hawker batteries with other battery types on the same vehicle! All batteries in the battery compartment **must be** the same type.

If you crank your tank with Hawkers, listen up! Your M1A2 SEP tank has the additional six batteries in the left rear sponson (the "6-Pack" battery mod), so **all 12** batteries on the tank **must be** the same type.

Mixing Hawker and other battery types on the same vehicle can cause charging problems and is **strictly prohibited** due to safety risks.



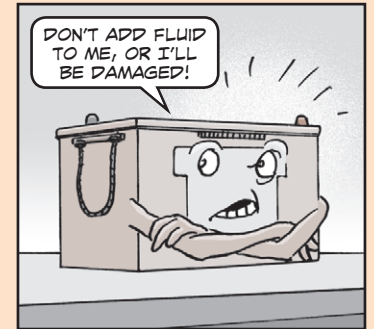
ONLY USE ME WITH OTHER HAWKERS!

Maintenance Tips

• Field maintenance should continue to service the Hawkers in accordance with the applicable vehicle TMs; TM 9-6140-200-14, *Operator's, Unit, Direct Support and General Support Maintenance Manual for Lead-Acid Storage Batteries*; and TB 9-6140-252-13, *Field and Sustainment Maintenance and Recovery Procedures for Automotive HAWKER ARMASAFE Plus Battery, NSN 6140-01-485-1472.*

• DO NOT attempt to add any fluid to Hawker batteries. This will cause permanent irreparable damage to the batteries.

• Tankers, the voltage regulator, NSN 6110-01-233-1135, currently used in M1-series tanks has a charging rate that can be too high for Hawker batteries, especially in high heat or high use situations. This voltage regulator can overcharge the batteries and lead to "thermal runaway." So use voltage regulator, NSN 6110-01-540-7819, with the Hawker battery, instead.



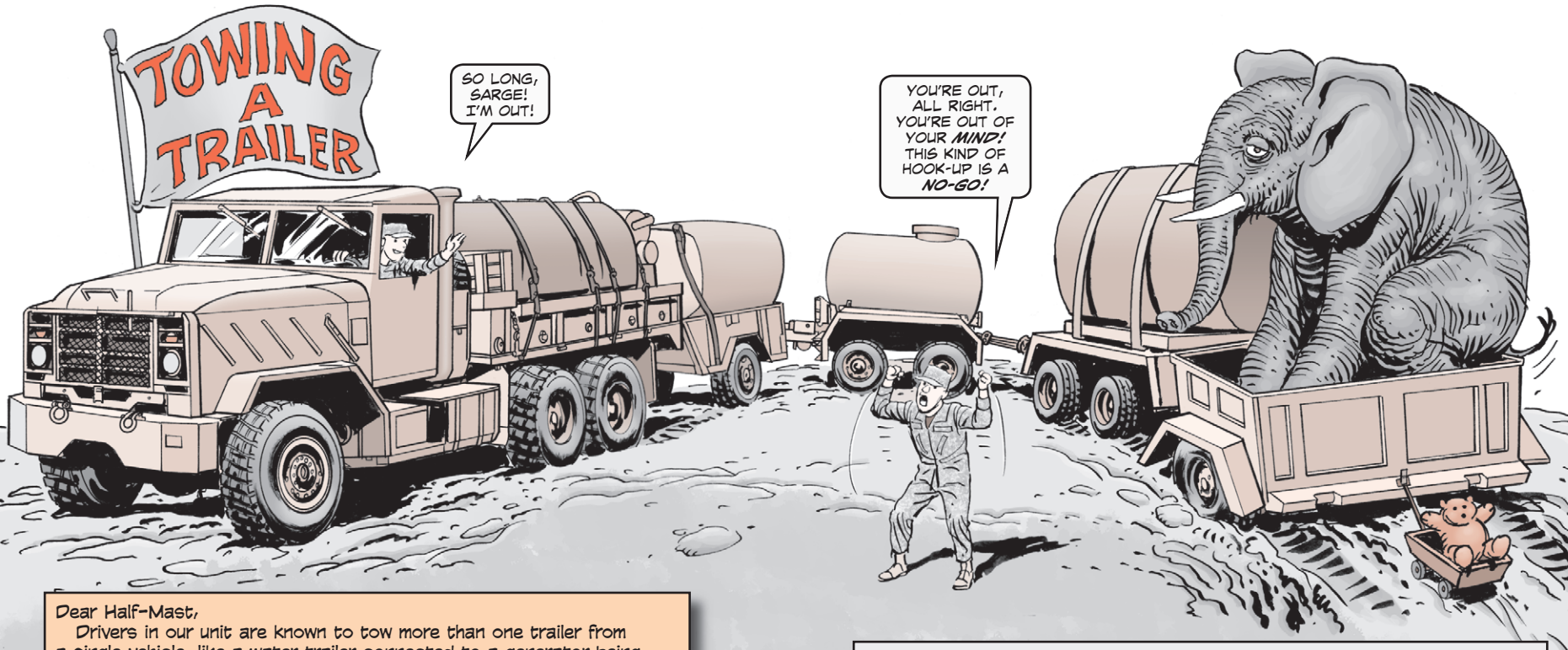
DON'T ADD FLUID TO ME, OR I'LL BE DAMAGED!

By the way, thermal runaway is a condition where the battery cells get so hot that they destroy themselves. Not only will this ruin the batteries, but it can also lead to a battery box fire.

Try to limit the number of times you run down the charge before starting the main engine to recharge the batteries. Running the batteries way down results in high charge currents and more heat. It also shortens the service life of Hawkers.

Deep discharging Hawkers in cold environments can also shorten their life span because the current voltage regulator will undercharge them.

Using voltage regulator, NSN 6110-01-540-7819, solves both the high and low temperature problems. You should always be very careful when recharging Hawker batteries.



Dear Half-Mast,

Drivers in our unit are known to tow more than one trailer from a single vehicle, like a water trailer connected to a generator being towed by a 2½- or 5-ton truck.

This doesn't seem safe to me, but I can't find a regulation, SOP or warning in the operator's technical manual that says you can't do this. Is this practice allowed?

SGT M.S.F.

Dear Sergeant M.S.F.,

The short answer is—NO!

The long answer is, this practice is not authorized and must stop for the following reasons:

- Per the operator's manual for the M35A2- and M35A3-series 2½-ton trucks, WP 0002 00-9 in TM 9-2320-361-10 and Page 1-13 in TM 9-2320-386-10, the maximum towed load for the truck's pintle hook is 6,000 pounds. The combined capacity of these two trailers exceeds the maximum pintle load by nearly 1,500 pounds.

- The two trailers referenced in your question do not have pintle hooks attached to them as standard equipment. And the rear cross member on these trailers was not tested to determine if it could withstand towing another trailer.

- Also, both trailers do not have rear glad hands to hook up air lines needed to operate the air-over-hydraulic brakes on following trailers. The brakes must be in working order to comply with DOT standards.

- The 2½-ton series trucks were never tested to tow multiple loads, only a single towed load. And the truck, as the prime mover, cannot recover enough air pressure to operate the vehicle's brake system with two loads in tow. The truck's air compressor is not big enough to put the air that's used back in the air-brake system fast enough.

- Neither trailer referenced has a receptacle mounted for an electrical cable from the last trailer that would allow rear lights to work when hooked up. That means the last trailer is not in compliance with DOT standards.

Hope this helps. The bottom line is **don't** tow more than one trailer from the truck.

Half-Mast

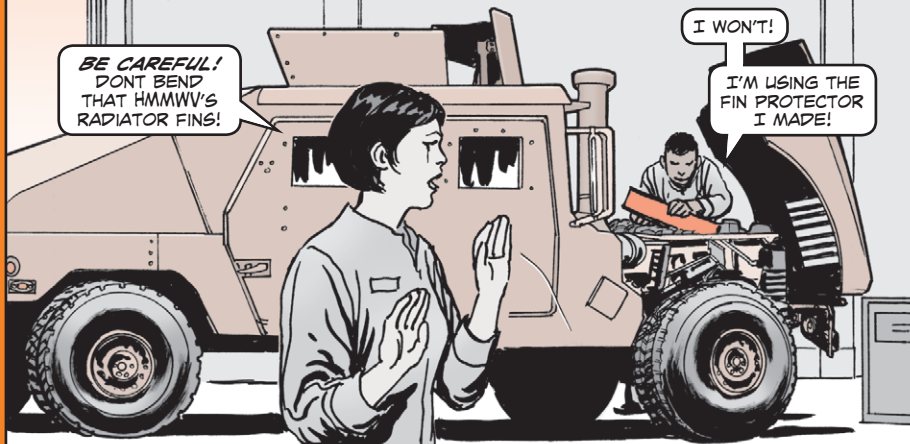
HMMWV...

Fins Don't Bend When Protection's In

BE CAREFUL!
DON'T BEND
THAT HMMWV'S
RADIATOR FINS!

I WON'T!

I'M USING THE
FIN PROTECTOR
I MADE!



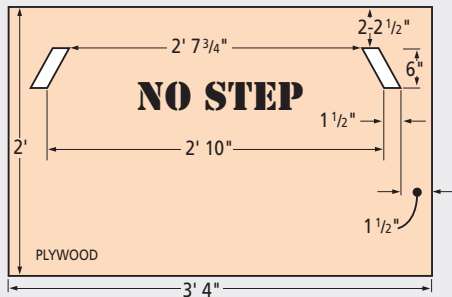
Want to reduce overheating your HMMWV's engine and transmission? You can if you have straight fins on your HMMWV's radiator and oil cooler!

Without protection, the fins can bend during PMCS and repair work. And when enough of the fins bend, the reduced air flow through the radiator and cooler leads to engine and transmission overheating.

How can you keep the fins on your HMMWV straight? Make your own fin shield.

Making the Fin Shield

DO IT BY CUTTING
3/4 INCH
PLYWOOD
USING THESE
APPROXIMATE
DIMENSIONS...



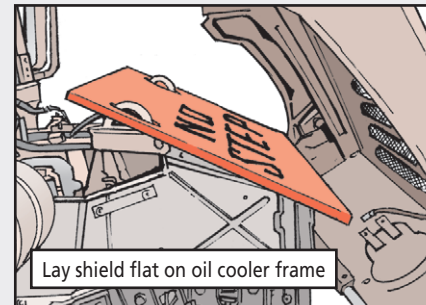
Adjust the dimensions as necessary to fit your HMMWV. Also, round off the edges and paint the board to prevent splinters. And be sure to stencil NO STEP on the board.

Using the Fin Shield

To use the fin shield, remove the eye-hook seals and slip it over the two lifting rings. Then lay it flat on the oil cooler frame. The rings prevent the shield from sliding onto the raised hood.

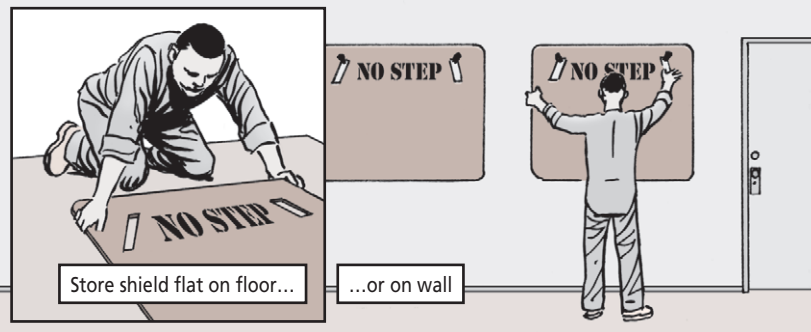
Don't run the engine with the shield in place! It'll block air flow and lead to engine overheating—the very thing your shield is designed to help prevent!

After using your fin shield, replace the eye-hook seals. And even though the board should protect the fins against bending, check for bent fins anyway. Then use the fin-straightening tool, NSN 5120-00-157-2180, as needed.



Storing the Fin Shield

Take care of the fin shield by storing it flat. That keeps it from warping. Lay it on the floor away from traffic areas, or hang it on the wall against a flat surface.



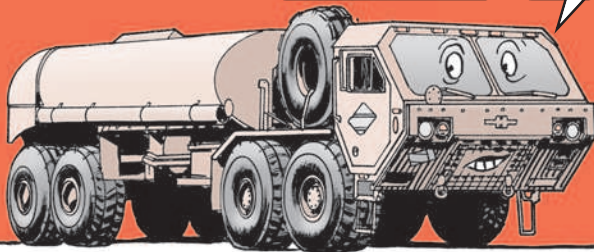
HMMWV Winch Kit

The 9,000-lb winch is no longer available for the M998/A1 HMMWV. Instead, use NSN 2590-01-456-7879 to get a 10,500-lb winch kit that replaces the old one. Make a note until this NSN is added to the TMs. Installation instructions come with the kit.

HMMWV Spare Tire Carrier

Use NSN 2590-01-525-1995 to get a spare tire carrier for ONLY these HMMWV vehicles with an airlift rear bumper: M1113 expanded capacity HMMWVs (not carrying a shelter), M1114 up-armored armament carriers, M1025A2 armament carriers, and M1097, M1097A1 and M1097A2 heavy variant cargo/troop carriers.

RESET and V10 Valves



Dear Half-Mast,

We have M978 HEMTT fuel tankers that have just returned from RESET. Now the V10 valve is a problem. It allows the tanker to store fuel, but it won't allow the fuel to recirculate! What's the solution?

SGT V.T.M.

Dear Sergeant V.T.M.,

Your problem could be a result of several things. Your first step should be to eyeball TM 9-2320-279-20-1 for a troubleshooting solution. If that doesn't fix the problem, consider these tips that we learned from soldiers in the field:

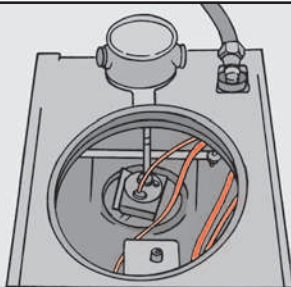
- Check to make sure the two plastic lines to the V19 jet sensor are not crossed. If they're reversed, the V10 valve won't open.
- Make sure the V10 valve hasn't seized up while your M978 was sitting. If it has, apply pressure to free it up.
- In some RESET M978s, the box under the hatch has a plug installed on the underside. Taking the plug out might solve your problem.

Fuel can flow through only when the V10 valve is open. The V10 valve opens as soon as fuel pressure is available, unless the level of fuel in the tank is at its maximum level.

When the fuel level rises to the full level, the V10 valve closes, preventing the tank from being over-filled. The plug could be giving the impression of a full tank, so the V10 valve won't take on fuel.

• Replace the valve and see if the new one works. You might also want to disassemble and repair the old valve to get it working properly.

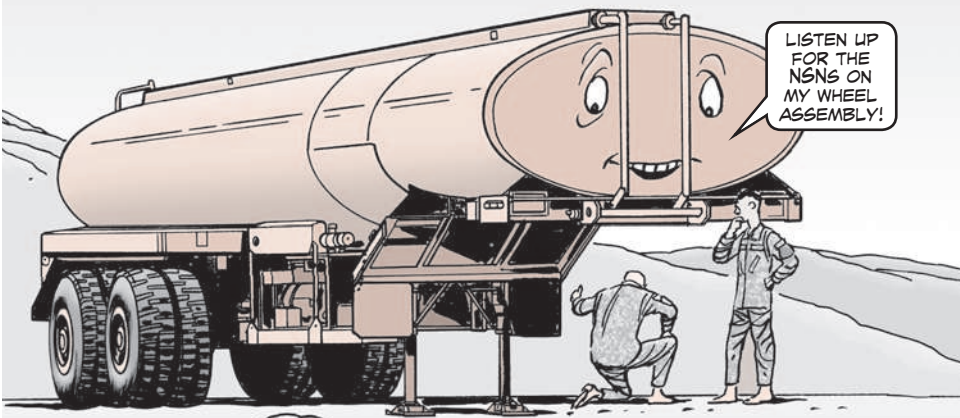
Make sure the two plastic lines to the V19 jet sensor aren't crossed



Half-Mast

5,000-gal Fuel Tankers...

WHEEL ASSEMBLY SWITCH



M967A1, M969A1 AND M969A2 FUEL TANKERS ARE SWITCHING OVER TO 22 1/2-IN TUBELESS TIRES AND ONE-PIECE WHEEL ASSEMBLIES.

The old 20-in split-rims, NSN 2530-00-603-5768, are now obsolete on these vehicles. Since the basic M967 and M969 tankers have the older suspension configuration and wedge-type brake system, keep using the 20-in split rims with the bias-ply tube tires while they are still available in the supply system.



NSN 2530-01-506-4125 GETS THE NEW WHEEL ASSEMBLY FOR THE M967A1, M969A1 AND M969A2 FUEL TANKERS.

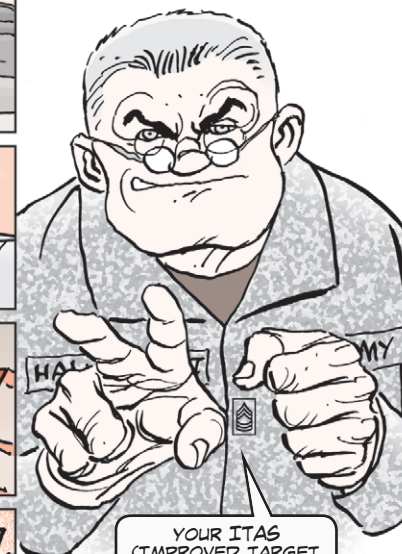
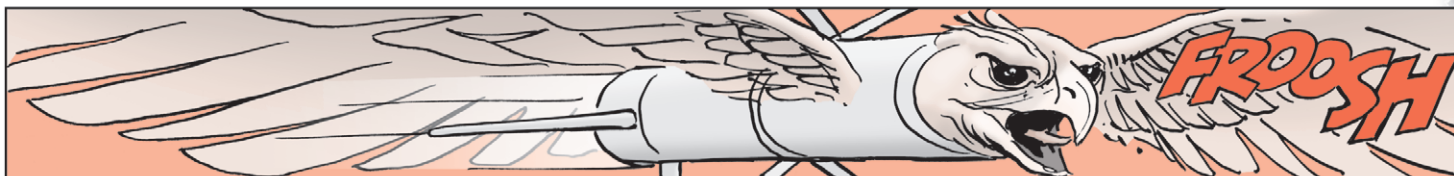
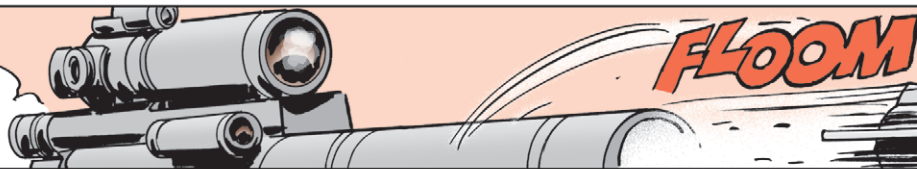
HERE'S WHAT COMES WITH THE NEW WHEEL ASSEMBLY...

Part	NSN
Wheel, 22.50-in, tubeless	2530-01-329-7523
Tire, 11.00 x 22.50-in, load Range "G"	2610-01-045-3688
Valve stem	2640-00-555-2841
Valve extension, 5-in (inside wheel assemblies)	2540-01-440-6668

The inner and outer lug nuts on the new wheel assembly are the same ones used on the old 20-inch split-rim assembly. Just remember **not** to mix the old and new wheel assemblies on the fuel tanker. That would cause instability, an uneven ride, and excessive wear and tear on the tires and vehicle.

Eyeball ITAS PM!

I'VE GOT
THE TARGET
ACQUIRED!



YOUR ITAS
IMPROVED TARGET
ACQUISITION SYSTEM
WILL HAVE THE EYES
OF A HAWK AND THE
POWER OF A RHINO
IF YOU REMEMBER
THESE PM TIPS.

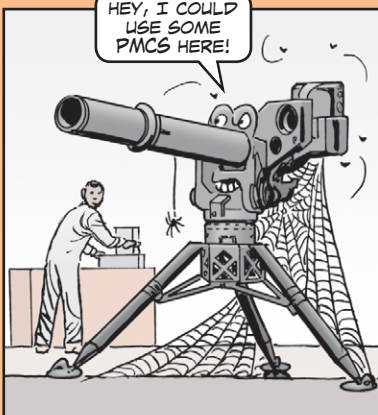
PMCS

Just do it! Too many ITAS units put their ITAS away and don't check it out until they're already in the field. Then when they find problems, they can't get them fixed until they come back to the motor pool.

If you do the PMCS weekly, you will spot problems, keep the bat-teries charged, and stay familiar with your ITAS so you don't have to relearn how to operate it.

Just remember to report problems right away so your maintenance can fix them or turn them in to Raytheon. Don't forget, repairs cost your unit nothing.

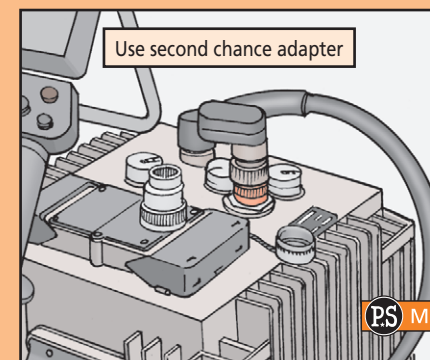
HEY, I COULD
USE SOME
PMCS HERE!



Need a Second Chance?

Use the second chance adapter for the cable that connects to the fire control system (FCS). The adapter protects the pins for the cable by absorbing any rough handling. If the adapter pins are damaged, the adapter is relatively easy to replace. But if the cable connector pins are damaged, the cable costs lots of time and money to replace. You can get second chance adapters from your ITAS maintenance technician in exchange for damaged ones.

Use second chance adapter



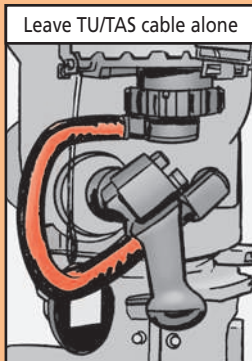
PS MORE

Cable Cautions

There's no need for you to take off the cable that runs between the traversing unit and the target acquisition system. So leave the cable alone! If you repeatedly take it off and put it back on, you risk damaging cable pins. That can be an expensive repair.

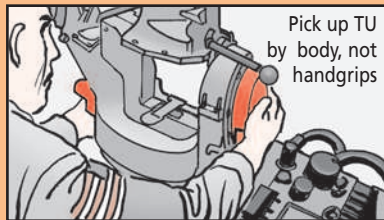
Never tug on the cables. That causes them to fray at the connectors and eventually the cables have to be replaced.

When you have the HMMWV interface cable connected to the FCS, watch your feet. It's very easy to step on the cable where it lies on the truck's floor, which can put the cable out of action. Use the cable mount to wind up excess cable to keep it out of the way.

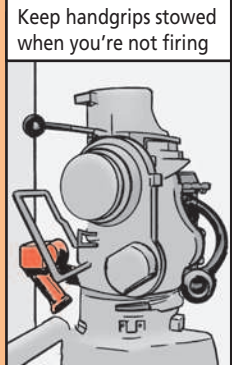


Handgrip Help

Never pick up the TU by the handgrips or anything else on the TU that's black. First stow the handgrips and then reach under the handgrips to pick up the TU by its body.



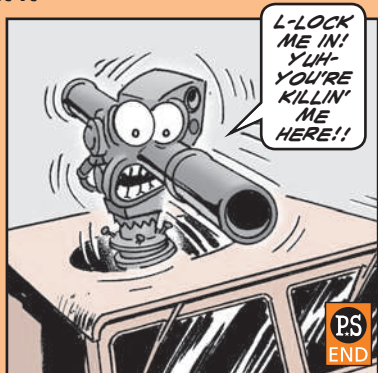
When you're not operating, keep the handgrips stowed. That protects them from bumps and knocks that can break buttons or even the handgrip shaft.



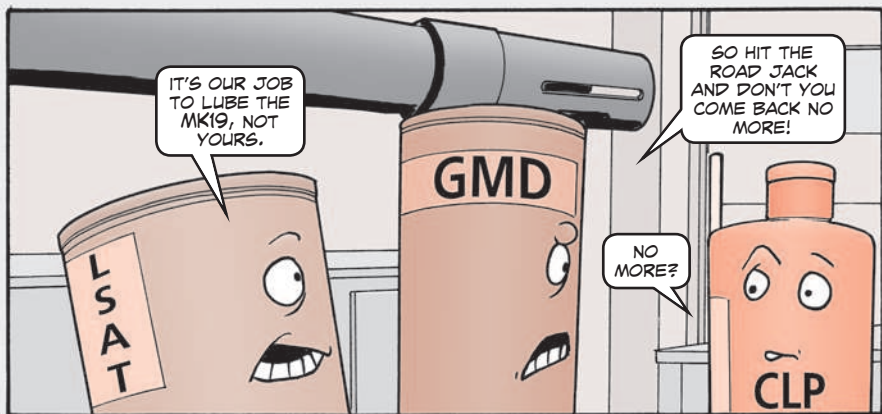
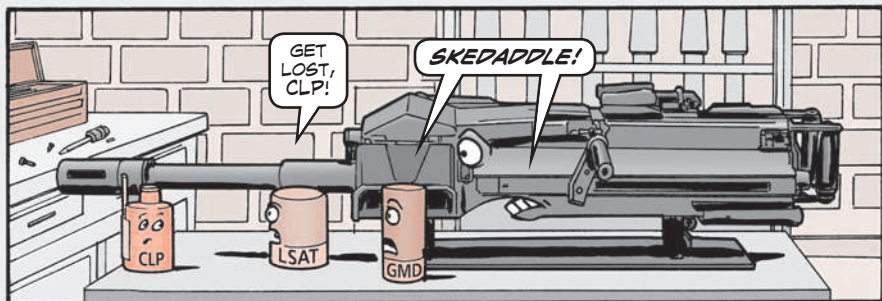
Protect It

If you're not looking through the ITAS, lock the TU in the azimuth and elevation positions and put it on standby. Otherwise, hard jolts during movement can damage the sight and that's an expensive fix.

If the sight isn't mounted, it should be stored in its case or strapped down in your HMWV. If you leave it lying unprotected on the ground or loose in the HMWV, count on it being damaged. Never throw equipment into a HMWV that's got an ITAS. One good shot to the sight can ruin it.



USE THE RIGHT LUBE



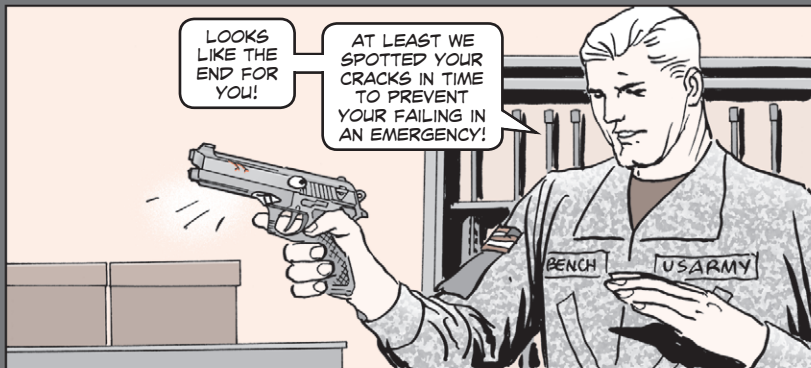
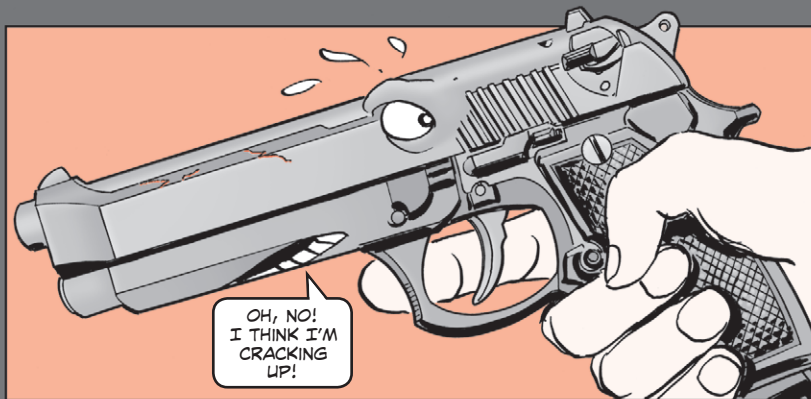
Mechanics, there is one thing you should never do to your MK19 machine gun—lubricate it with cleaner lubricant protectant (CLP).

Using CLP on the MK19 affects the gun's firing, destroys its alloy coating and causes the weapon to corrode. Then it becomes unserviceable.

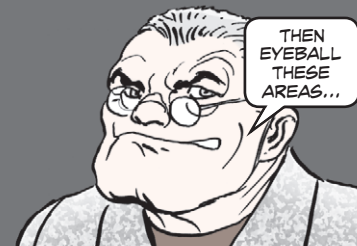
Always use a light coat of LSAT lube inside the feed tray before and after firing, like it says in TM 9-1010-230-23&P. You can order it in a can, NSN 9150-00-949-0323, or tube, NSN 9150-01-109-7793.

LSAT is the right lube—CLP is the wrong lube. You can also use the GMD lube listed in WP 0010 00-4 of TM 9-1010-230-10. Order 14 ounces with NSN 9150-00-935-4018, 6¹/₂ pounds with NSN 9150-00-223-4004, or 35 pounds with NSN 9150-00-965-2003. Always follow your TM's PMCS to get the job done right.

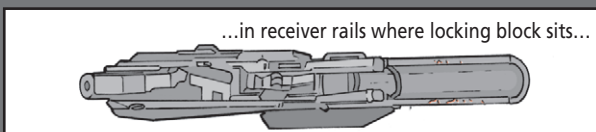
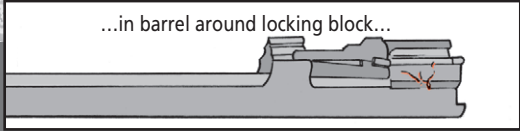
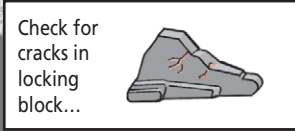
CRACK DOWN ON CRACKS... AND OTHER STUFF



An M9 pistol that sees lots of use will probably develop cracks eventually. There's nothing you can do to stop them, but you can spot cracks before they stop your M9 from firing.



- locking block along the front and rear of the locking lugs. That's where cracks and chips usually appear.
- the barrel in the area around the locking block
- the inside of the slide where the locking lugs sit
- the receiver rails where the locking block sits in the receiver
- around the magazine catch

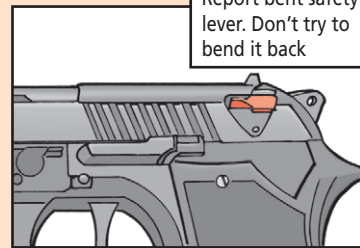


Cracks usually mean you need a new pistol. Tell your armorer if you spot any.

Safety Lever

If the safety lever is bent, don't try to bend it back. That just weakens the lever or snaps it off. DS needs to replace the lever.

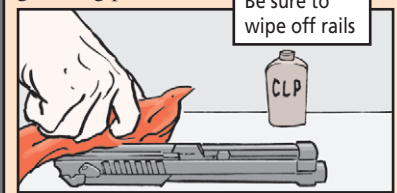
Report bent safety lever. Don't try to bend it back



Clean Rails

Make a point when cleaning to wipe off the receiver and slide rails. If the rails become gritty with sand, the back-and-forth action of the slide wears out the bearing surfaces and soon you've got firing problems.

Be sure to wipe off rails



Trigger Bar Spring

Careful when cleaning inside the magazine well. Many trigger bar springs are lost during cleaning. The spring is under lots of tension. If you nudge it—ZING—it's gone. No spring means no firing. Keep cleaning tools away from the spring and make sure the spring is still in place when you're through cleaning.

ARE THERE SPRING LENGTH STANDARDS?



IT DOESN'T MATTER HOW LONG...

...OR SHORT WE ARE AS LONG AS WE DON'T HAVE BROKEN COILS.

Dear Half-Mast,

Are there minimum and maximum length standards for the M249 machine gun recoil and firing pin springs? I can't find anything in TM 9-1005-201-13&P on that.

SSG J.D.

Dear Sergeant J.D.,

No, there is no length standard for either spring. For the recoil spring, the inspection criteria is "spring should not have more than one broken strand on the same coil, or more than two broken strands, regardless of location, on entire spring".

For the firing pin spring, the criteria is "check for kinks, breaks, and retention capability".

Half-Mast

HOW DO YOU STORE M11 PISTOLS?

Dear Half-Mast,

What rack do you store M11 pistols in? We think it's the M14 rack, which is the one used for M9 pistols. But doesn't that rack need to be modified?

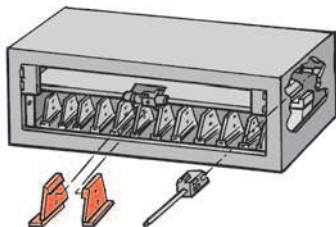
SGT J.B.

Dear Sergeant J.B.,

You're right that M11s are stored in the M14 rack, NSN 1095-01-236-2203. If you have the newer M14, it has magazine well guides that work with both the M9 and M11. If you have the original M14, you will need to replace the guides with those that come with NSN 1005-01-439-5566.

Half-Mast

Old M14 rack needs different magazine well guides



Check ASP for Filler

HEY, IT SAYS HERE WE CAN ORDER A FILLER FOR YOUR MAGAZINE. THAT WOULD BE **GREAT** TO HAVE!

YOU DON'T NEED TO DO THAT. OUR ASP USUALLY HAS FILLERS FOR **FREE!**

Dear Editor,

I saw on Page 17 in PS 640 (Mar 06) that you gave soldiers the NSN for the filler for the M16 rifle and M4 carbine's magazine.

The filler is a great thing to have, but I would encourage soldiers to first check with their ammo supply point (ASP) before they use unit money to order fillers. Fillers are usually turned in to the ASP at the end of training so most ASPs have plenty of fillers on hand. They will give you the fillers for free. No use spending money when you don't need to.

Sean Saunders
Medium Caliber Ammunition
Rock Island Arsenal, IL

Editor's note: Thanks for the heads-up on free fillers.

Mortars...

BATTERIES FOR MY BALLISTICS COMPUTER?

WAITAMINIT! THE BALLISTIC COMPUTER BATTERY LISTED THERE **ISN'T** AVAILABLE!

WE'RE GOING TO HAVE TO COME UP WITH A **REPLACEMENT!**

TIME TO WRITE HALF-MAST!

Dear Half-Mast,

The batteries listed in the M23 Mortar Ballistics Computer's TM 9-1220-246-12&P are no longer available in the supply system. Are there replacement batteries?

SGT M.M.

Dear Sergeant M.M.,

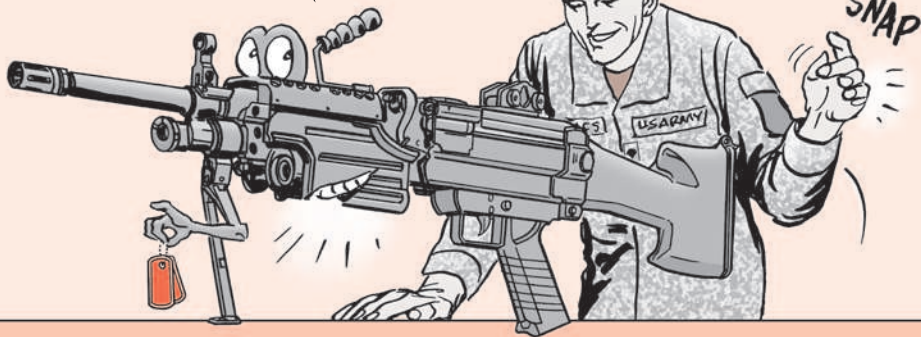
Yes, you can order the BA-5588A/U non-rechargeable battery with NSN 6135-01-447-5083. This brings a 5-pack of batteries for about \$200. Pencil in the change on Page C-3 in Change 2 of the TM.

Half-Mast

STAMP OUT BARREL MARKING

OK, WE'VE GOT THE DOG TAGS FOR MY BARRELS, BUT HOW DO WE PUT THE ID NUMBER ON THEM?

I KNOW JUST WHO TO ASK!



Dear Half-Mast,

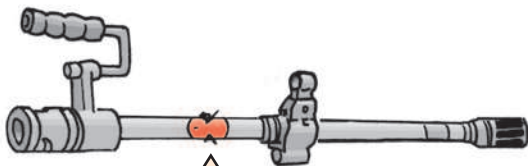
I know PS has talked about how important it is to ID both barrels for the M2, M249, and M240 machine guns. That way you know you're using a barrel headspaced for that specific weapon. You recommended using a dog tag to put the ID number on. I know you can get the dog tags with NSN 8465-00-242-4804. How do you stamp the numbers on them?

SPC A.B.

Dear Specialist A.B.,

Your direct support has metal stamping die sets that are part of the All Direct Support Shop. If they don't have the stamping sets, you can order one for $\frac{1}{8}$ -in numbers with NSN 5110-00-289-0002. Then use safety wire to fasten the dog tag to the barrel. Make sure the wire ends don't stick out where they can poke someone.

You can also paint the number on the barrel.



Use safety wire to attach dog tag to barrel

What you *don't* want to do is engrave the number on the barrel. That ruins the barrel's finish, which leads to corrosion and a ruined barrel.

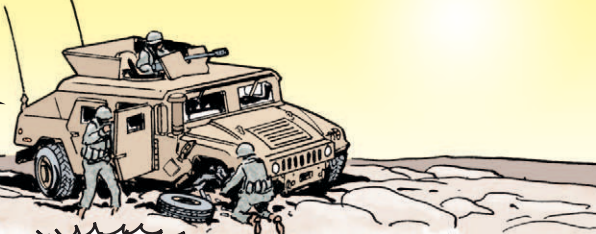
Half-Mast

GETTING...

...PERSONNEL...

...BACK

KRUNCH



CHARLIE-LIMA SIX...
THIS IS CHARLIE
LIMA THREE-FOUR.
COME IN CHARLIE-
LIMA SIX!



... RALLY POINT
DELTA IS ABOUT
THREE CLICKS
OUT... 2KRICK&E

GREAT, I
DON'T THINK
WE'RE TRANS-
MITTING!



HEY SARGE, LOOKS
LIKE WE GOT COMPANY
COMING!

OKAY,
GET THE
RUCK-
SACKS
OUT!

LET'S BE
READY
TO MOVE
IF WE
HAVE TO!

The movie *Behind Enemy Lines*, about a Navy navigator downed in the Balkans, portrays the stress of finding yourself alone in a hazardous area. It also shows the anxiety that fellow servicemembers feel for those missing.

The reality for isolated, missing, detained or captured (IMDC) personnel serves it up in larger doses.

When the Army talks about “No soldier is left behind” it’s not just talk, nor is it just about soldiers. Everyone connected with the DoD mission—service members, civilian employees, contractors—is valued and needed. For all who are separated from U.S. control, the Army wants them back—safe and unharmed. It’s a lot easier when everyone in the system uses personnel recovery as they should.

Preferably you’ve done all that is possible to prevent isolation. But sometimes things get grim!

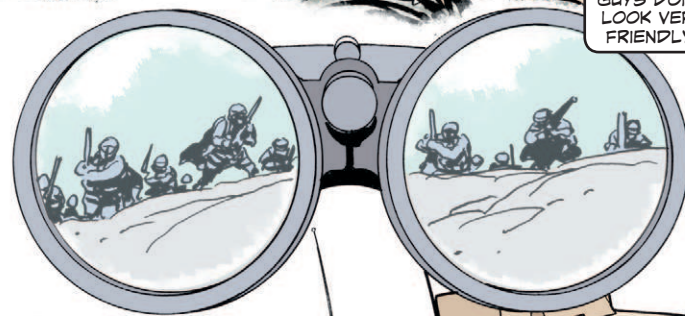
There are steps to take when you’re the one who has lost contact with friendly forces.

Your Personal Recovery Efforts

Isolated in an area where you don’t know who might be hostile, you evade. Besides applying the code of conduct and your survival, evasion, resistance and escape (SERE) training, there are some other things you must do:

- **Take stock of your assets.** How much ammo, food and water do you have? Where is the nearest rally point? What means do you have to communicate? What are the challenge/password, authentication codes, as well as other recognition systems?
- **Prepare for Friendly Contact.** Do you remember how to use ground-to-air signals (GTAS) in daylight and darkness? What is your unit plan for personnel recovery? What are you supposed to do? What will they be doing? Do you remember the Air Tasking Order Special Instructions? What’s supposed to happen at recovery sites?

Knowing the answers and following the combat drills for SERE can give you the confidence you need to overcome obstacles. It can also be a source of hope when you know your unit will be searching for you.



LET'S
MOVE!

Unit Recovery Actions

Prevention is the much preferred alternative. Leaders at all levels must check that junior officers, NCOs and convoy leaders down to team leaders know how to reduce the likelihood of losing personnel and that they can quickly begin personnel recovery actions.

Their immediate alert to higher headquarters will limit the size of the area that must be searched. The more specific the location the better.



THIS LOOKS LIKE A GOOD SPOT, SPECIALIST JONES.

LET'S GET SOME WATER AND TAKE AN INVENTORY.



SO WE HAVE SIX MRES, 8 GRANOLA BARS, ABOUT 9 LITERS OF WATER AND OUR BASIC LOAD OF AMMO.

AND I GRABBED THE GTAS BAG, TOO!

GTAS

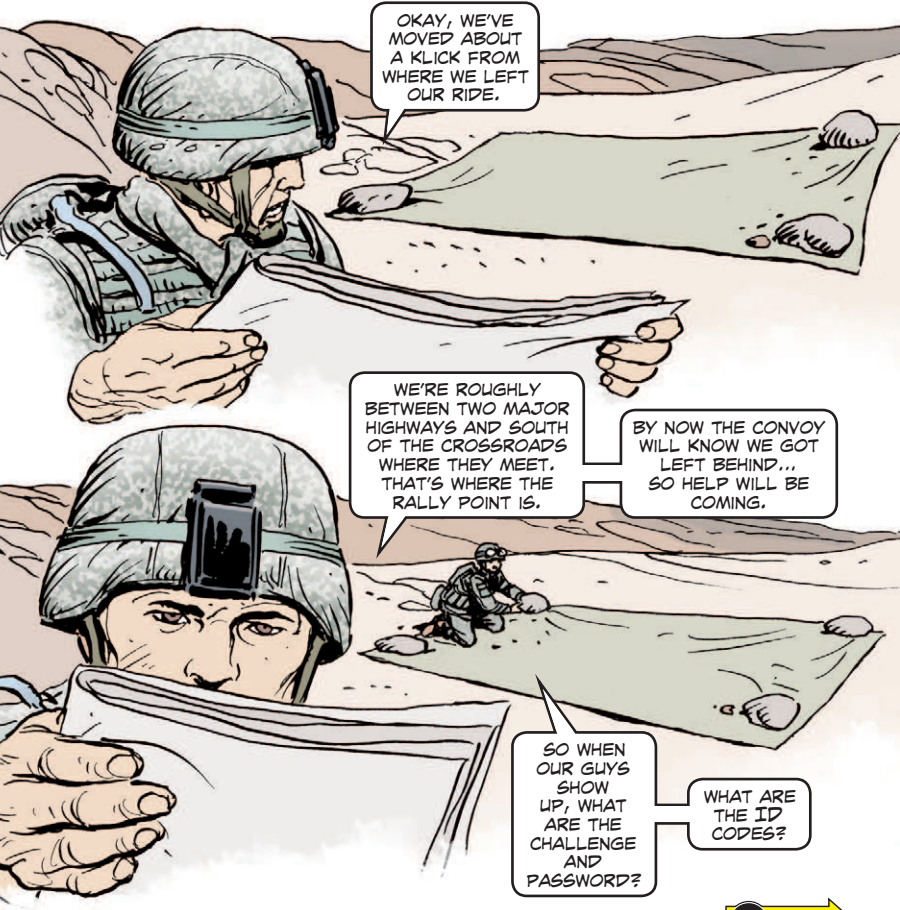


WE COULD DEPLOY THE GTAS HERE IN THE GULLY.

PEOPLE IN THE VILLAGE WON'T SEE IT BUT ONE OF OUR AIRCRAFT MIGHT!

WHAT'RE YOU GUYS WAITING FOR?

GET IT DONE!



OKAY, WE'VE MOVED ABOUT A CLICK FROM WHERE WE LEFT OUR RIDE.

WE'RE ROUGHLY BETWEEN TWO MAJOR HIGHWAYS AND SOUTH OF THE CROSSROADS WHERE THEY MEET. THAT'S WHERE THE RALLY POINT IS.

BY NOW THE CONVOY WILL KNOW WE GOT LEFT BEHIND... SO HELP WILL BE COMING.

SO WHEN OUR GUYS SHOW UP, WHAT ARE THE CHALLENGE AND PASSWORD?

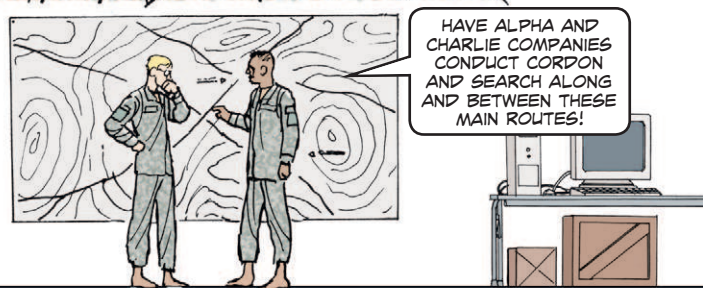
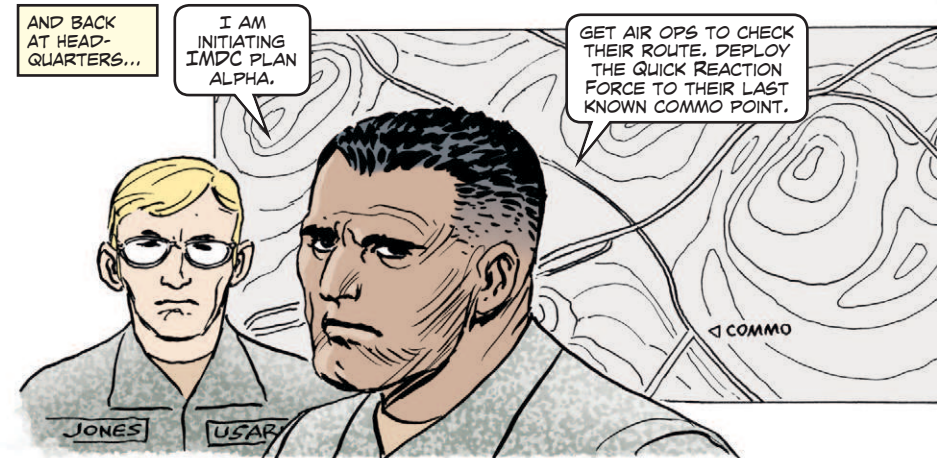
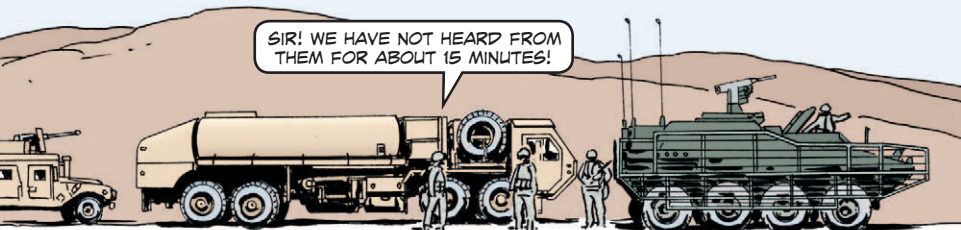
WHAT ARE THE ID CODES?

Higher headquarters can deploy quick reaction forces to recover the IMDC personnel. The commander can divert other units to set up hasty containment check points and conduct a cordon and search of the area. The unit can call in aircraft to expand the search area and to defend IMDC personnel.

Support for the isolated personnel may be psychological or physical. It may include airdrops of supplies or close air support. Support will also be provided to family members (if needed) through Family Assistance Teams and others.

The bottom line for recovery actions is that recovery should come from those friendly assets that are closest, fastest, and best suited to complete the recovery.

Thus, an isolated soldier who has successfully evaded hostile forces may be recovered by ground forces or even by aircraft that see his GTAS.



Recovery Isn't the End

Isolation from friendly forces is extremely stressful. Recovery doesn't end with simply returning isolated personnel to U.S. control. Reintegration is required.

Reintegration has several possible phases, but recovered personnel can expect these activities at each level:

- Medical exams and treatment
- Intel debrief to obtain information
- SERE debrief to gain lessons learned
- Transportation as required

In personnel recovery nothing can prepare soldiers, civilians and contractors as well as direct instruction and practice in SERE, GTAS and other recovery-related information. Close combat drills for movement to contact and breaking contact have direct application to evasion skills.

But training isn't enough. Prevention of situations that create isolation, and preparation for recovery if needed, must be a part of every operation, truck convoy and patrol.

Your life, and the lives of those around you, depend on your personal recovery preparation.





A UAV SPOTTED THREE SOLDIERS TAKING DOWN A GTAS.

THEY ARE MOVING ON YOUR LOCATION FROM THE EAST.

YES SIR! PERSONNEL ARE IN SIGHT AND OKAY!

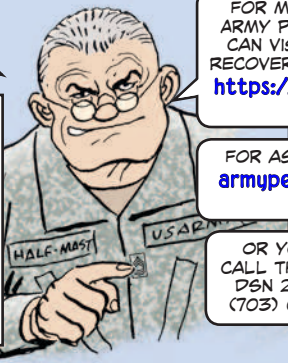


GLAD TO SEE YOU GUYS!



THESE PUBLICATIONS FORM THE BASIS FOR ARMY PERSONNEL RECOVERY EFFORTS...

- FM 3-50.1, *Army Personnel Recovery*
- GTA 80-01-001, *Fundamentals of Army Personnel Recovery*, provides a pocket reminder of personnel recovery principles



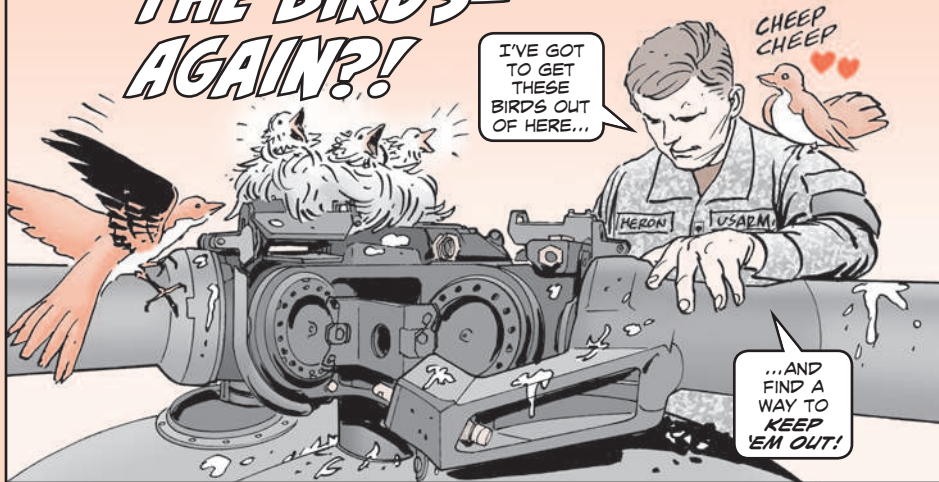
FOR MORE INFORMATION ABOUT ARMY PERSONNEL RECOVERY YOU CAN VISIT THE ARMY PERSONNEL RECOVERY OFFICE (APRO) WEBSITE: <https://www.us.army.mil/suite/page/373835>

FOR ASSISTANCE YOU CAN EMAIL armypersonnelrecoveryoffice@conus.army.mil

OR YOU CAN CALL THE APRO: DSN 222-3116 (703) 692-3116



THE BIRDS- AGAIN?!



Bird nests have been found in the opening of the AH-64 tail rotor and nestled underneath the cambered fairing of a Black Hawk just above the stabilator.

The Chinook is also a target. Birds use the rotor head area to build nests.

As the bird battle continues, it's in your best interest to pull out those rotor hub or rotor head covers, NSN 1730-01-538-5186, NSN 1730-01-455-4997. Use them when the aircraft sits on the flight line.

Birds have no preference for what materials they use to build nests. Scraps of safety wire, straw and the usual grass make a good nest.

If you notice nest-making material around your Chinook, go top-side and inspect the rotor head for stowaways. Bird nest material is a FOD problem.

And remember that bird droppings are corrosive and messy. When cleaning areas where birds have pitched their nest, always wear gloves and any necessary breathing devices. Bird waste can eat through paint, wiring and insulation and it corrodes metal. If bird droppings are splattered all over the rotor head, wash your helicopter.

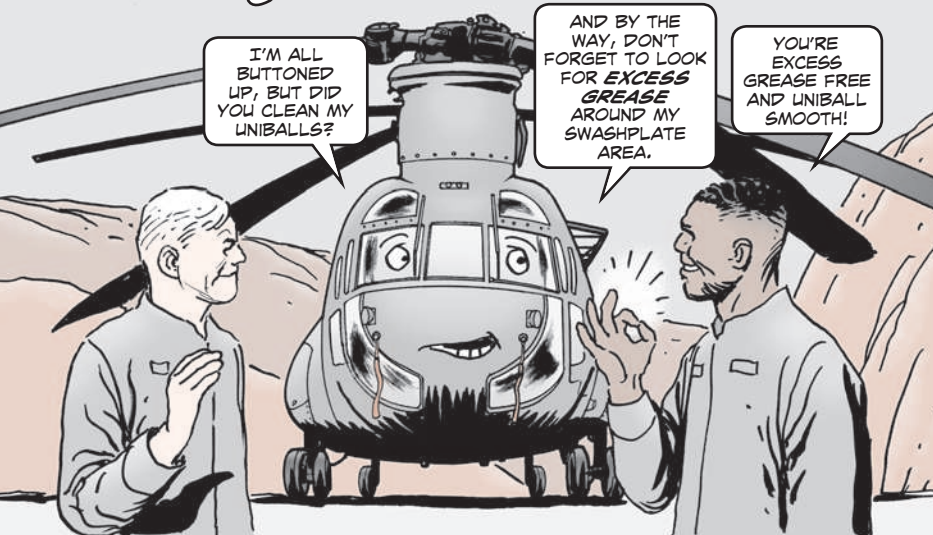
As always, the best defense against birds making a home or making a mess on the rotor head is to keep the rotor head covers on.

Use NSN 1730-01-455-4997
for cloth cover...



...and NSN 1730-01-538-5186
for nylon cover

Dirty Uniballs Won't Last



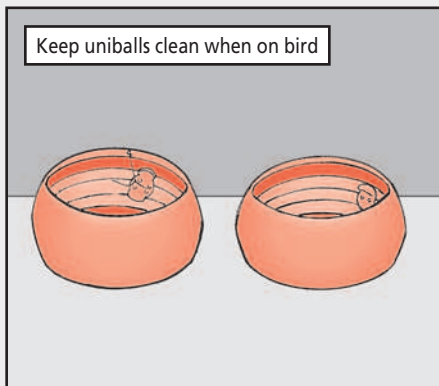
Mechanics, sand is unforgiving and relentless when it attacks aircraft components.

You can avoid premature wear and tear of your Chinook swashplates and forward and aft uniball surfaces by wiping off dirt and excess grease. Inspect, clean and repair them like it says in IETM 1-1520-240-23&P.

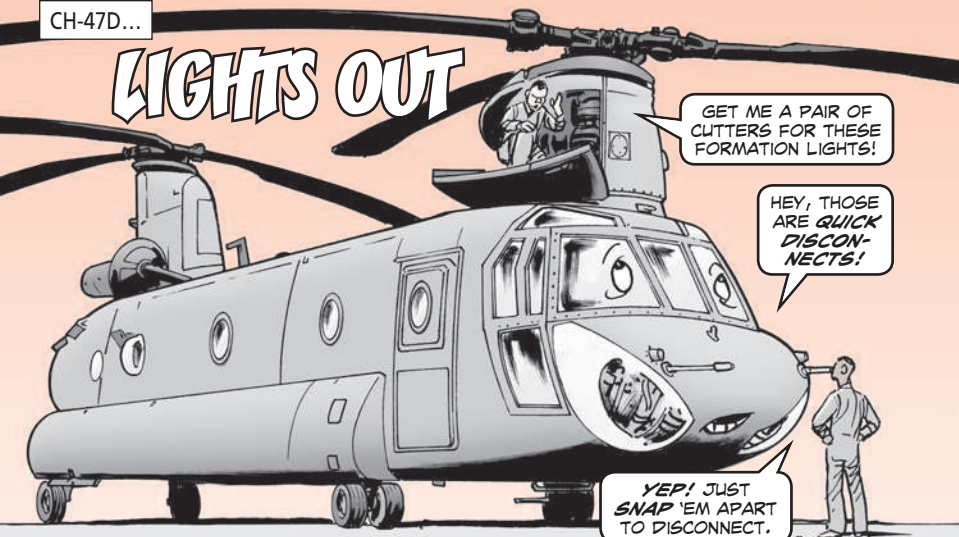
Keeping the swashplates free of excess grease and the uniball surfaces clean as a whistle prevents friction that can lock up the flight controls. Locked controls spell curtains and could put your bird in harm's way with the ground.

So take it easy when you grease the swashplates. If excess grease gets on the uniballs it acts like a magnet for dirt, grit and sand, which can scratch, nick, or pit. This leads to uniball friction, binding and failure.

The bottom line: clean, smooth uniballs last longer than dirty ones. You'll be replacing them often if you don't service the uniballs more often in the desert.



LIGHTS OUT

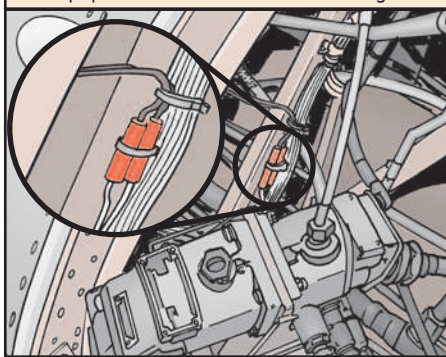


When working with the formation lights on your Chinook, it is not necessary to cut the wires to remove them or to gain access to other components. Formation light wires have quick disconnects and need no cutting.

So, the next time you're working with the formation lights, just unsnap the wires like it says in IETM 1-1520-240-23&P and don't cut them. The formation light wire connectors may not look like quick disconnects, but they are.

If you're not sure what to do, then call your senior mechanic before doing anything. Lights out in the barracks is OK, but lights out on your bird means NMC.

Unsnap quick disconnects instead of cutting wires



Handle Lower Cabin Door Step



Crewmembers, when eyeballing your Chinook for problems during daily and pre-flight inspections, don't get hasty and forget the cabin door step.

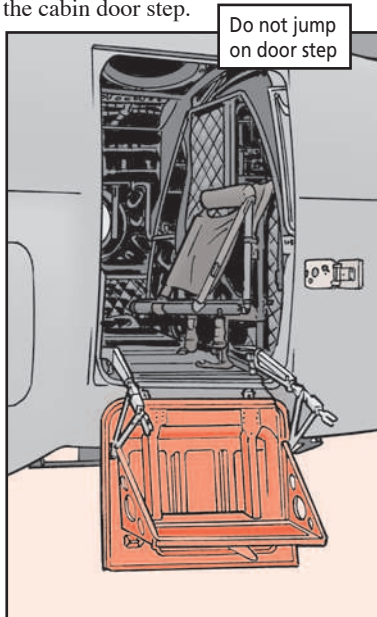
Mistreatment of any part of your bird will damage components or a part of the airframe. The lower cabin door step gets lots of abuse.

Break the habit of opening the lower cabin door and letting the door step drop. Do the opposite. Get in the habit of grabbing the handle and lowering the cabin door step properly.

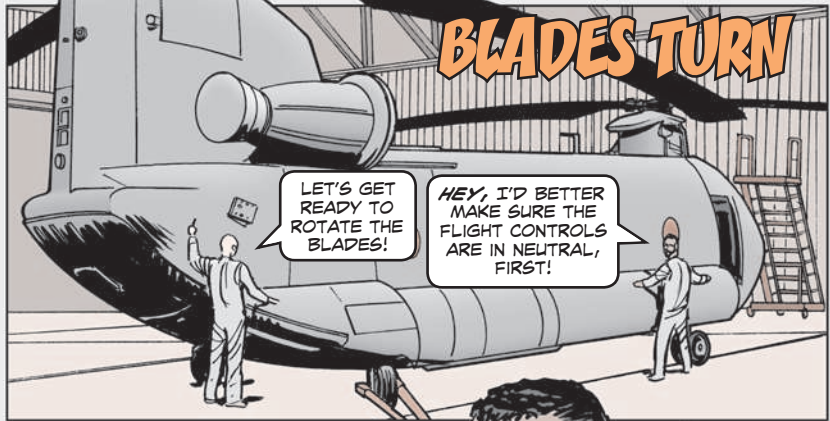
If you let the cabin door step fall down, you elongate the bolt holes and break the door hinges. You can also crack the step by letting it free fall into place.

One more thing to remember: Break the habit of using the lower cabin door step as a spring board. So stop jumping down on it to exit your bird. And keep your feet off the door arms, too. Your weight can crack them. Since the lower cabin door step has a handle, use it!

Check the step during daily inspections.



AS THE BLADES TURN



LET'S GET READY TO ROTATE THE BLADES!

HEY, I'D BETTER MAKE SURE THE FLIGHT CONTROLS ARE IN NEUTRAL, FIRST!

MECHANICS, WHEN PERFORMING CHINOOK MAINTENANCE ON THE AFT ROTOR HEAD, IT'S EASY TO FORGET THE SMALL THINGS.

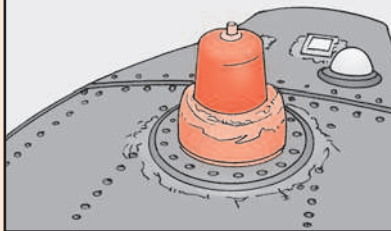


Rotating the rotor blades is a normal task during maintenance. But make sure you're careful and watch out for the aft rotating beacon.

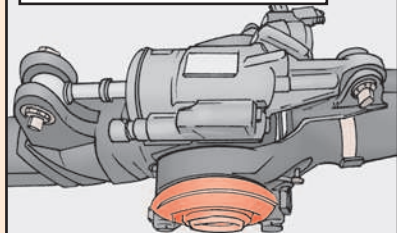
When the flight controls are in certain positions, it is possible for the vertical hinge pin and/or the lower pin oil tank to hit the light lens. So if your bird's flight controls are in any position other than neutral and you turn the blades without watching, the light lens could be damaged. That's not good because now your bird is NMC.

Save the avionics shop a trip to your bird and the repair downtime. Keep the aft rotating beacon out of harm's way by making sure the flight controls are in the neutral position to spare the light.

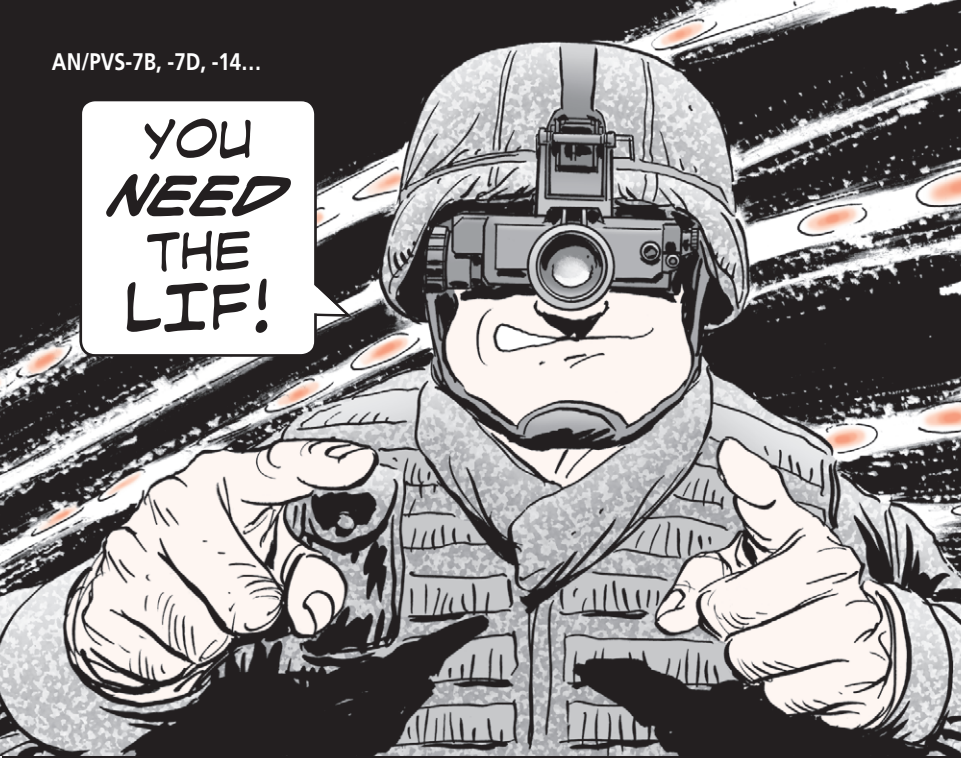
Protect rotating beacon from...



...vertical hinge pin or lower tank



**YOU
NEED
THE
LIF!**



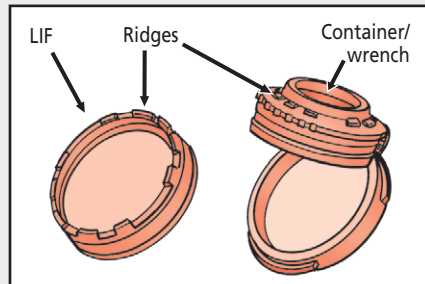
The light interference filter (LIF), NSN 5855-01-379-1410, is a light protection filter for the image tube on your AN/PVS-7B, -7D or -14 night vision devices.

Your image tube cannot recover from bright light damage. The pixels in the tube will be damaged and leave a black, empty streak, an arc or spot.

While your NVG is pretty smart by cutting off when exposed to bright light, it's not fast enough when exposed to extreme bright light such as the light emitted by tracers, lasers, and flares.

Folks in the know say a lot of tubes are being replaced because of direct light damage.

In the AN/PVS-7B and -7D technical manuals, TM 11-5855-262-10-2 and TM 11-5855-262-23&P-2, and in the AN/PVS-14 technical manuals, TM 11-5855-306-10 and TM 11-5855-306-23&P, the instructions say, "The LIF is to be used at all times." This instruction is repeated over and over and over again in these manuals.



Yet, LIFs are still being removed and not used.

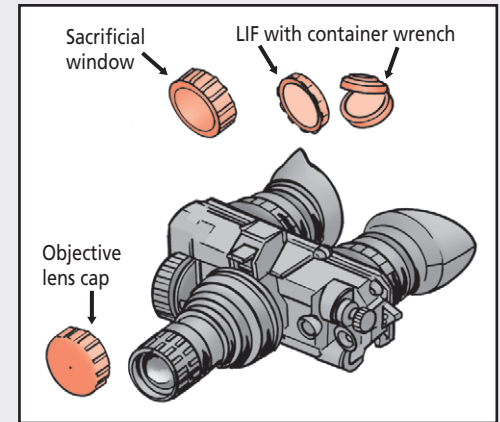
Why?

One reason may be that some of you don't think you get as good an image with the LIF in place. And you're right. There is a slight reduction in system gain, but the emphasis is on the word **slight**. If you're getting too great a reduction, try cleaning the LIF using water and lens paper, NSN 6640-01-459-4239. If it's still a problem, get a new LIF!

If the LIF is dirty or scratched or otherwise damaged, it could be you're not using the sacrificial window, NSN 5855-01-246-8271. Use it! Its job is to give its life so the LIF and the tube can survive.

Additionally, some of you are removing the LIF to attach things like the 3X magnifier and the compass. The magnifier, the compass, the sacrificial window and the lens cap will all fit into the end of the objective lens with the LIF in place.

Finally, it is essential that you use the objective lens cap, NSN 5340-01-392-6608, whenever the NVG is not in use to protect the image tube from exposure to sunlight.



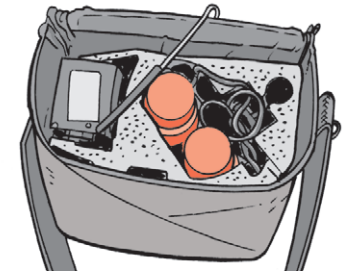
AN/PVS-5 Night Vision Device...

SHIPPING AND STORAGE CONTAINER

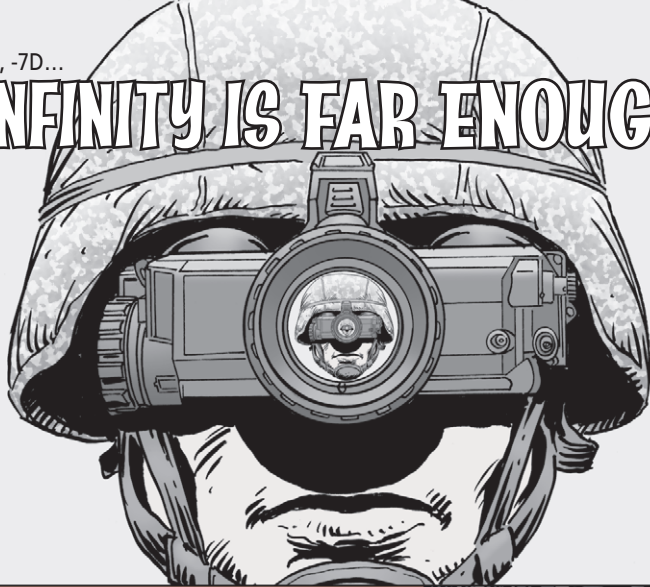
Drop NSN 1240-00-137-7768, shipping and storage container for the AN/PVS-5 night vision device, from your component-of-end-items list. Check any of those "special NSNs lists" you have and make sure that NSN is deleted on them, too. That container is no longer available.

Instead, use shipping box, NSN 8115-00-550-3574, as your shipping and storage container for the night vision device. This box is one of the "Fast Pack" boxes that are supplied by GSA.

Even though this container is no longer available, store NVD safely for shipping.

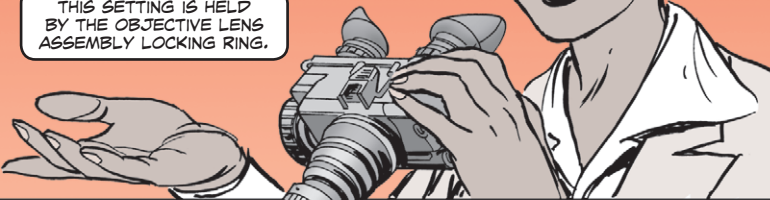


INFINITY IS FAR ENOUGH



TO GET THE SHARPEST IMAGE ON AN/PVS-7B OR -7D NIGHT VISION GOGGLES, THE OBJECTIVE LENS IS FACTORY SET AT INFINITY.

THIS SETTING IS HELD BY THE OBJECTIVE LENS ASSEMBLY LOCKING RING.



DURING SOME MAINTENANCE, THE LOCKING RING IS RELEASED, THE OBJECTIVE LENS IS REFOCUSSED AND THE LOCKING RING IS SET AND SEALED AGAIN.



SO FAR, SO GOOD.

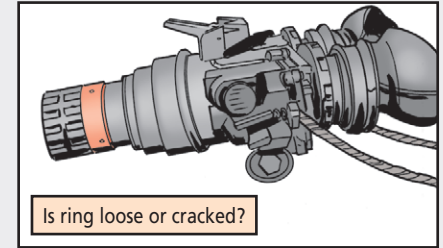
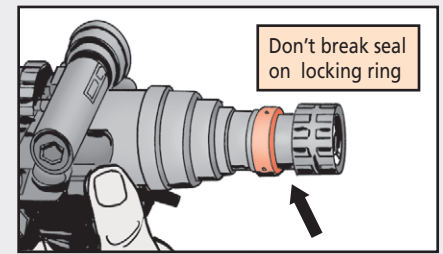


Unfortunately, operators, some of you aren't happy with the sharpest focus you can get. You're sure you can do a little better. So, you break the seal on the locking ring and start twisting the infinity focus. Soon, you've screwed the objective lens so tight against the image intensifier tube that you crack the lens at worst and reduce goggle performance at best. Neither of these is a good thing!

Operators, your job concerning the locking ring is to make sure it isn't loose or cracked like it says in TM 11-5855-262-10-2. It is not your job to loosen it. If the ring is loose or cracked, turn it in to your NVG maintainer for repairs.

Maintainers, your job is to reset the infinity focus and lock the ring in place. To ensure the locking ring stays in place, it is sealed with drops of sealing compound, NSN 8030-01-390-7555.

When the locking ring needs to be loosened, do it with cushioned slip-joint pliers, NSN 5120-00-624-8065. This is all part of the instructions in Para 3-13 of TM 11-5855-262-23&P-2.



NVD Eyepieces...

DON'T BREAK DIOPTER PINS!



The diopter adjustment rings on eyepieces of the AN/AVS-6 series, AN/PVS-7B or -7D and AN/PVS-14 let you focus your NVD even if you normally wear glasses. The rings adjust for the sharpest image possible in a range of +2 to -6 diopters. There's a small pin to keep you from overturning the ring.

But some of you want more!

You keep adjusting when there is no place to adjust to. It's not long until the pin snaps and breaks. So here is the rule: When the ring stops turning, you stop turning the ring! It's not going to get any better, and it could get a lot worse!

When you do your Before/After PMCS before you head out and when you return, be careful. In some cases, pins are breaking during the check!

FDECU...

IS
THERE
A TM
FOR THE
DASH
FIVE?



Dear Half-Mast,

We have several -5 models of the field deployable environmental control units (FDECU), NSN 4120-01-449-0459. FDECU models 2, 3 and 4 are covered by TM 9-4120-411-14 (1 May 2000) and TM 9-4120-411-24P (1 Aug 2002). Are there any TMs that cover the -5?

SSG D.L.G.

Dear Sergeant D.L.G.,

The TMs have been updated by industry. But this upgraded TM, which includes the FDECU-5, has not been verified by the Army. It is a "Commercial Draft", which can be obtained by contacting Mr. William J. Pardy, ECU Branch, CCS Avionics Directorate, at DSN 992-4256, or by email: william.pardy@conus.army.mil

The primary difference between the -4 and the -5 is the compressor/reversing valve assembly.

To get a compressor/reversing valve assembly for the FDECU-5, use NSN 4130-01-511-7193.

If you have an FDECU-2 or -3 and need to replace the compressor/reversing valve assembly, you'll need to order the assembly for the -5. To make it fit, you'll need to order the parts shown below. Use a DD Form 1348-6, CAGE 1SYQ5 for part-numbered items.

Part	PN or NSN	Qty
Compressor brace	9454226-3	1
Clamp	9454226-4	1
Warning label	7690-01-493-7425	1
R134A label	7690-01-493-7422	1
Hex-head screw	NASM35307-308	2
Flat washer	5310-00-582-5677	4
Lock washer	5310-00-933-8119	2
Hex nut	5310-00-903-5966	2

The washers and hex nut come in boxes of 100.

The FDECU-4 and -5 come complete with the mounting hardware for the compressor/reversing valve assembly.

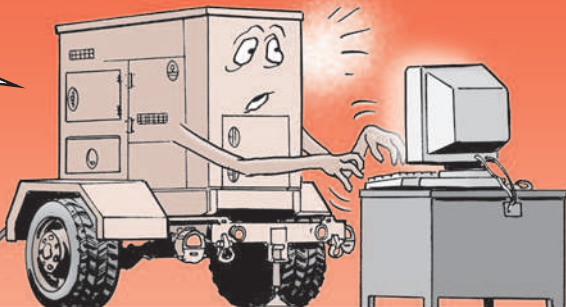
The FDECU is supposed to be replaced in the future with the 60K IECU.

Half-Mast

RETURN FUEL LINES

I NEED TO REPLACE MY RETURN FUEL LINE, BUT I CAN'T FIND THE NSN!

WHY AM I DOING MY OWN MAINTENANCE, ANYWAY!?



Dear Editor,

The 5-KW DED, NSN 2815-01-350-2205, and the 10-KW DED, NSN 2815-01-350-2206, tactical quiet generators need 10 feet of return fuel lines.

According to the 5-KW engine manual, TM 9-2815-252-24P, and the 10-KW manual, TM 9-2815-253-24P, you make the return fuel lines from bulk stock. The bulk stock they give you is part number 503-1052. You can find that as Item 3 in Fig 5.

Unfortunately, that part number does not bring an NSN on FED LOG.

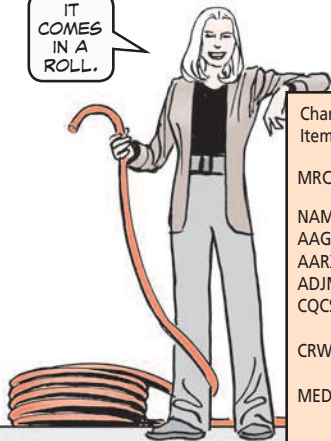
Fortunately, we were able to find an NSN that brings the nonmetallic hose by the foot. It's NSN 4720-01-483-6467.

I thought you would like to put this in PS.

SFC Wayne Simmons
DEARNG

Editor's note: You thought right, Wayne! Generator mechanics, if you're doing maintenance on these engines, check the return fuel lines. If they need replacing, you now have an NSN to order more hose.

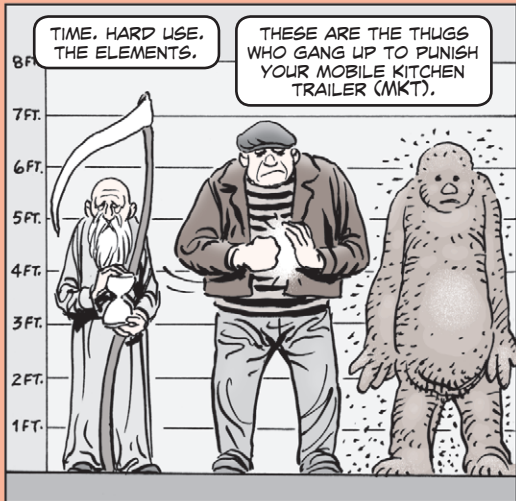
IT COMES IN A ROLL.



Characteristics Data Response for NSN 4720-01-483-6467
Item Name: HOSE, NONMETALLIC

MRC	Requirement Statement	Clear Text Reply
NAME	ITEM NAME	HOSE, NONMETALLIC
AAGR	CROSS-SECTIONAL SHAPE STYLE	1 ROUND
AARX	INSIDE DIAMETER	0.14 INCHES NOMINAL
ADJM	INNER CONVEYING TUBE MATERIAL	RUBBER, BUNA-IN
CQCS	LAYER COMPOSITION AND LOCATION	OUTER LAYER BRAIDED COTTON CORD
CRWL	INSIDE SURFACE CONDITION	SMOOTH
MEDA	MEDIA FOR WHICH DESIGNATED	FUEL/OIL, HYDROCARBON AND WATER AND AIR

RESTORE WITH IMPROVEMENT KIT



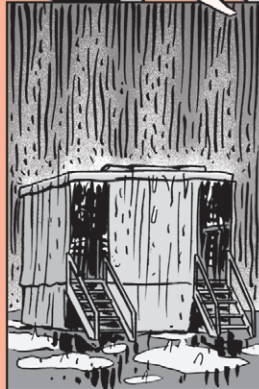
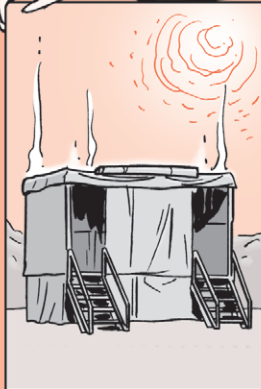
TIME, HARD USE, THE ELEMENTS.

THESE ARE THE THUGS WHO GANG UP TO PUNISH YOUR MOBILE KITCHEN TRAILER (MKT).



BEFORE YOU KNOW IT, ICE CHESTS LEAK, CAN OPENERS BREAK, FLOOR MATS FALL APART.

SUNLIGHT, HEAT, ICE, WIND, RAIN AND MILDEW WEAR OUT COVERS AND SCREENS.



IF YOUR MKT LOOKS LIKE IT'S TAKEN A BEATING, RESTORE IT TO HEALTH WITH THESE MKT-I IMPROVEMENT KITS...

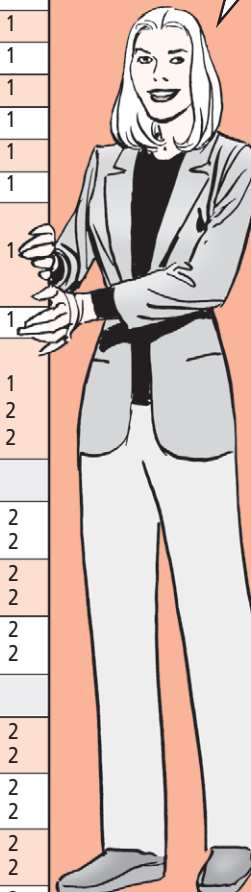
NSN 7360-01-469-5482 for green fabric
NSN 7360-01-496-3869 for tan fabric

THE KITS COME WITH THE COMPONENTS LISTED BELOW.

IF YOU DON'T WANT THE ENTIRE KIT, ORDER JUST THE PARTS YOU NEED.

ALL OF THE MKT-I COMPONENTS ARE STANDARD ON THE MKT-99.

THE SCREENS, COVERS AND SKIRTS ARE MADE OF GREEN OR TAN VINYL-COATED POLYESTER.



Item	NSN	Qty
Griddle assembly with 4-in flange	7360-01-476-6715	1
Grease funnel assembly for griddle	7360-01-476-6723	1
Can opener, mounted	7330-01-411-9788	1
Can opener adapter	7330-01-476-6657	1
Chest, ice storage (green)	4110-01-452-7317	1
Chest, ice storage (tan)	4110-01-452-7315	1
Light, extension	6230-01-485-6376	1
Strap, retaining	5340-01-487-6922	1
Cable assembly, power electrical	6150-01-374-4603	1
Exhaust fan assembly, 3-in hose clamps (2), 3-in X 12-ft hose, heater vent weldment, portable prop for fan	7360-01-476-6635	1
Duplex outlet and cable assembly	5975-01-476-7146	1
Rubber floor matting,		
Center	7220-01-476-6674	1
Front/rear	7220-01-476-6860	2
Sides	7220-01-476-6861	2
Screen Assembly Components		
Screen assembly, end, large (green)	5411-01-476-7130	2
Screen assembly, end, large (tan)	5411-01-496-2100	2
Screen assembly, end, small (green)	5411-01-476-7132	2
Screen assembly, end, small (tan)	5411-01-496-2106	2
Screen assembly, side (green)	5411-01-476-7140	2
Screen assembly, side (tan)	5411-01-496-2108	2
Wall and Roof Assembly Components		
Cover, end, large (green)	5411-01-476-7134	2
Cover, end, large (tan)	5411-01-496-2109	2
Cover, end, small (green)	5411-01-476-6862	2
Cover, end, small (tan)	5411-01-496-2110	2
Cover, side, assembly (green)	5411-01-476-6663	2
Cover, side, assembly (tan)	5411-01-496-2111	2
Roof canopy assembly (green)	5411-01-476-7136	2
Roof canopy assembly (tan)	5411-01-496-2101	2

Item	NSN	Qty
Travel Cover Components		
Travel cover assembly, left side (green)	5411-01-476-7144	1
Travel cover assembly, left side (tan)	5411-01-496-2104	1
Travel cover assembly, right side (green)	5411-01-476-7145	1
Travel cover assembly, right side (tan)	5411-01-496-2105	1
Travel cover assembly, front (green)	5411-01-476-7141	1
Travel cover assembly, front (tan)	5411-01-496-2099	1
Travel cover assembly, rear (green)	5411-01-476-7143	1
Travel cover assembly, rear (tan)	5411-01-496-2107	1
Cold Weather Skirt Components		
Cold weather skirt assembly, roadside (green)	5411-01-476-6678	1
Cold weather skirt assembly, roadside (tan)	5411-01-496-2102	1
Cold weather skirt assembly, curbside (green)	5411-01-476-6703	1
Cold weather skirt assembly, curbside (tan)	5411-01-496-2103	1

DO YOU STILL HAVE THE OLDER MKT-75 THROUGH MKT-95 MODELS WITH CANVAS COVERS AND SKIRTS?

YOU NEED TO KNOW THAT THE ARMY IS GETTING RID OF CANVAS (COTTON DUCK) TENTS, TARPS AND VEHICLE COVERS.

THE ARMY'S REPLACING CANVAS WITH VINYL-COATED POLYESTER.



For those of you still holding canvas, it means you won't find canvas replacement parts in the Army supply system—and that includes covers and skirts for the MKT. It also means direct support will no longer repair canvas. **You** are now responsible for maintaining it.

When canvas becomes too worn out for your unit to repair, turn it in through normal supply channels. Learn more about turn-in policies by reading AR 710-2, *Inventory Management Supply Policy Below the Wholesale Level*, and AR 750-1, *Army Materiel Maintenance Policy*.

And to gain even more canvas savvy, read the canvas article on pages 50 and 51 of PS 627. It's also on the PS website:

<https://www.logsa.army.mil/psmag/archives/PS2005/627/627-50-51.pdf>

Whether you have polyester or canvas, you need to clean and care for it. TM 10-7360-206-13 shows you how. While you're at it, make sure to do the 1 1/2-ton chassis trailer PMCS in TM 9-2330-213-14&P.

And remember, just because you've added the improvement kit to the MKT doesn't mean you can store camouflage netting on the roof. Don't stand on the roof either. The supports are not made to hold up under the extra weight.

A BETTER PAINT, A SAFER PAINT

THE REASON YOU PAINT GUIDE MARKS AND WARNING LINES INSIDE YOUR MOTOR POOL CAN BE SUMMED UP IN ONE WORD: **SAFETY.**

THOSE YELLOW STRIPES ON THE FLOOR HELP SEPARATE THE VEHICLES FROM THE PEDESTRIANS.



- It's flammable.
- It pollutes the air.
- It requires paint thinner for cleanup.
- Leftover paint and thinner must be treated as hazardous waste.

AS LONG AS YOU'RE THINKING SAFETY, MAKE SURE YOUR PAINT IS SAFE.

FOR MANY YEARS THE ARMY HAS USED YELLOW PAINT, NSN 8010-00-900-3648, IN MOTOR POOLS.

BUT THIS PAINT HAS SOME DRAWBACKS...



A better choice is yellow traffic paint, NSN 8010-01-019-1776. It's designed for marking airfields, streets, highways and other traffic-bearing surfaces made of asphalt or cement.

It's a water-based latex paint. That means it's easy to clean up and doesn't require paint thinners. It's non-flammable and presents fewer health and safety hazards.

Before disposing of any paint, paint thinner or cleanup materials, talk with your unit's HAZMAT officer or NCO or the environmental office supporting your unit or installation. They'll advise you about state or local regulations on getting rid of hazardous waste.

Choose water-based latex for painting guide marks and warning lines



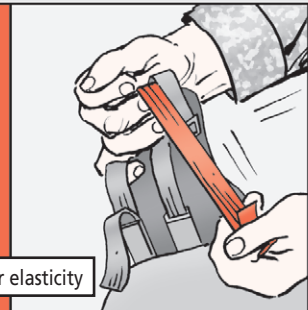
BAD HARNESS CAUSES BAD HEADACHES



HARNESS MASK HEADACHES WITH A LITTLE PM...

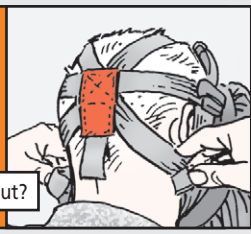


- Check the head harness' elasticity every time you do PMCS. Gently stretch all the harness straps to make sure they still have spring. If they don't easily snap back, get your CBRN specialist to replace the harness ASAP.



Gently stretch straps to check for elasticity

- Make sure the head harness elastic webbing is on top and its seams point out. If you have the harness inside-out, the crosspiece rubs a sore spot on your head.



Webbing on top with seams pointing out?

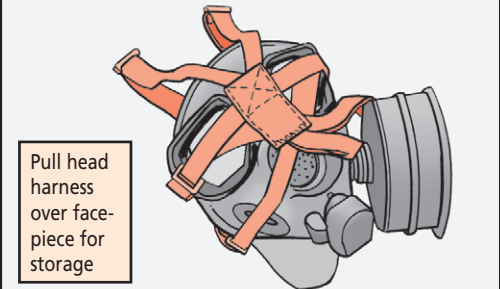
- Tighten the head harness snug, but not so snug you can't stick a finger under each strap. If the straps are tighter than that, count on a headache. Once you have the straps tightened correctly, loosen only the cheek straps to take off the mask. Then when you put the mask back on you need to tighten only the cheek straps to be ready for action. Saving those seconds could save your life.



Loosen only cheek straps when you take off mask

- Don't tape the straps in one position. That can lead to a headache or hot spot on your head. Plus you can't adjust the mask.

- Store the mask with the head harness pulled over the front of the face piece. That lets you just stick your face in the mask and pull the harness back over your head, saving more life-saving seconds. Don't store the harness over the canister, though. That stretches the elastic and causes it to weaken.

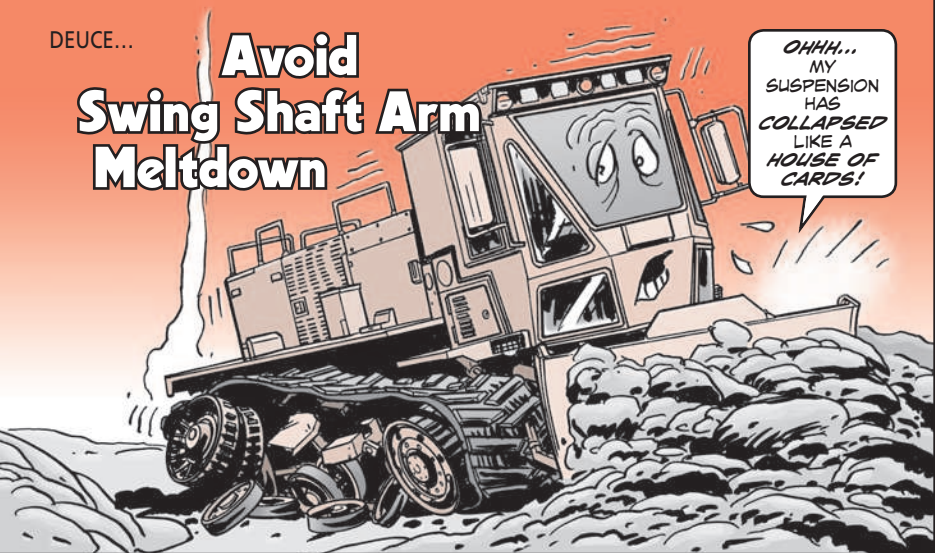


Pull head harness over face-piece for storage

DEUCE...

Avoid Swing Shaft Arm Meltdown

OH...
MY
SUSPENSION
HAS
COLLAPSED
LIKE A
HOUSE OF
CARDS!

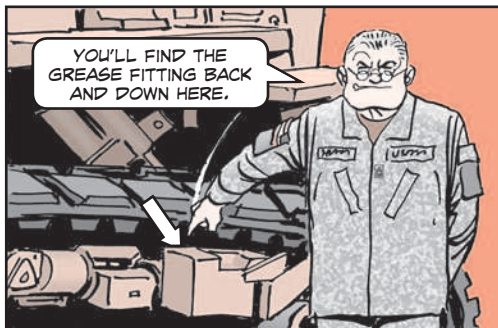
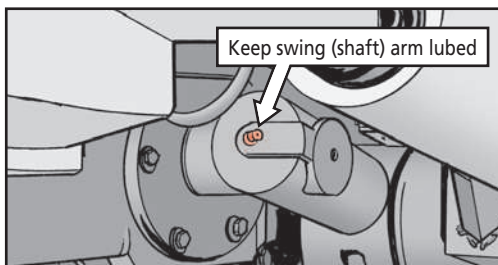


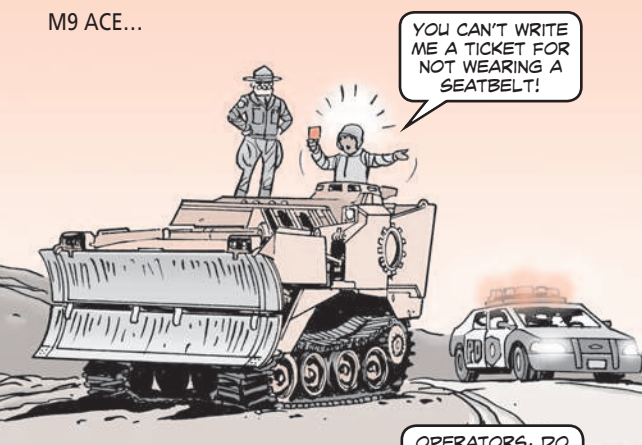
One grease fitting can make the difference between productive construction operations and an earthmover broken down at the work site.

Without lube, the swing arm seizes, causing the suspension to break apart. In Southwest Asia, several earthmovers have bit the dust that way. Their suspensions fell apart like an igloo in the desert!

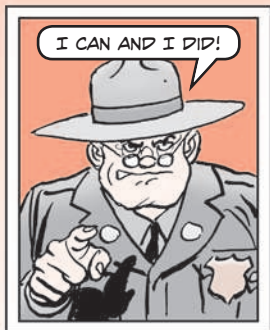
The grease fitting is a little tricky to find. It's located behind the bogie cylinder on the swing arm, facing toward the front of the vehicle. There's one on each side of the vehicle.

So, lube both swing arms weekly or every 50 hours of operation. You'll find this info on Page 125 in TM 5-2430-200-10, and the complete lube chart on Page 104.





YOU CAN'T WRITE ME A TICKET FOR NOT WEARING A SEATBELT!



I CAN AND I DID!

SEATBELT CHECK

OPERATORS, DO THE FOLLOWING CHECKS *BEFORE* EARTHMOVER OPERATIONS.

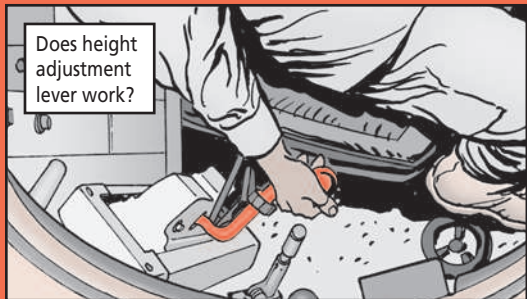
Check the seatbelt to make sure its buckle and clasp work. If the seatbelt is frayed, damaged or does not fasten, adjust, retract or operate, the vehicle is non-mission capable.

So, while sitting in the driver's seat with the seat in its highest position, pull and hold the seat's height adjustment lever. If the seat does not drop to its lowest position, or the adjustment lock is broken or missing, the vehicle is non-mission capable.

Remember, these checks are necessary! If not done, severe injury or death could happen if the earthmover rolls over.



Do buckle and clasp work?



Does height adjustment lever work?

CAB AIR FLOW



*SKOFF!
AHHEE-UH... I
NEED... SOME...
ONE... TO...
SKOFF!*

CLEAN THE AIR FILTER ELEMENT, Y'THINK?

A good cleaning seems to go by the wayside when it comes to the filter element for the 621B scrapper cab's air system. That's because it's located on top of the cab roof.

The filter element is important because it keeps clean air circulating inside the scrapper's cab, no matter how dusty the work site is.

So before you clean the element with low-pressure air (30 psi or less), check the air inlets for leaves, sand buildup, and ice or snow.



LOOK FOR *LEAVES, TWIGS* AND DIRT AROUND THE AIR FILTER ELEMENT.

Before the day's run in dusty areas, remove the element and tap it with your hand to get rid of trapped dirt or sand. Do not bang it against the cab! You'll bend its sealing edge or crush the filtering material.



THIS AIR FILTER ELEMENT NEEDS A GOOD CLEANING TO KEEP CLEAN AIR CIRCULATING INSIDE THE SCRAPER'S CAB.

New Survival Guides for PBUSE



Three new survival guides will help new unit commanders, supply sergeants, and property book officers get started.

The members of the QM Warrant Officer Advanced Course 003-2007 wrote the guides, which target the online property accountability system known as "Property Book and Unit Supply Enhanced" (PBUSE).

In early December, the new survival guides were updated by WOAC 001-2008. They reformatted the content, added helpful hints, incorporated PBUSE SCP 6.2 (Sep 07), and added even more sections.

The guides target the two distinct levels of PBUSE:

- The PBO level, "Property Book-Enhanced (PB-E)", which replaced the Standard Property Book System-Redesigned (SPBS-R) and will replace the Defense Property Accountability System (DPAS).
- The unit supply level, "Unit Supply-Enhanced (US-E)", which replaced Unit Level Logistics System-S4 Module (ULLS-S4) and will replace the unit level module in DPAS.

PS 664

You can access the guides at these URL addresses:

- Unit Commanders
<https://forums.bcks.army.mil/secure/CommunityBrowser.aspx?id=425831>
- Supply Sergeants
<https://forums.bcks.army.mil/secure/CommunityBrowser.aspx?id=425830>
- Property Book Officers
<https://forums.bcks.army.mil/secure/CommunityBrowser.aspx?id=426355>

OUR THANKS TO THE QM WARRANT OFFICERS WHO PRODUCED THESE GUIDES.

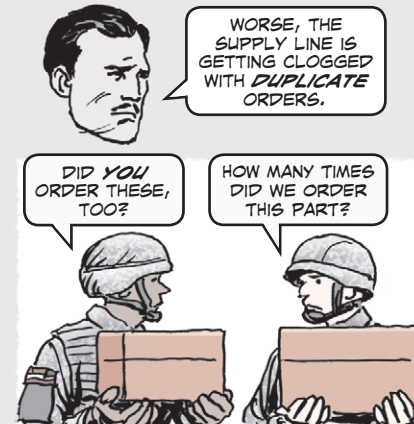
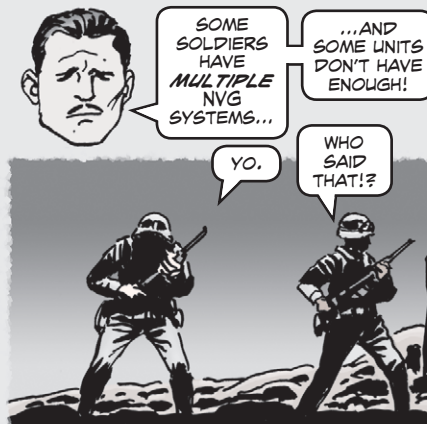
SO DON'T ABUSE PBUSE, USE THESE PBUSE GUIDES!



SUPPLY DISCIPLINE *and* OPERATIONAL SUCCESS

LISTEN UP!

OUR OPS ARE BEING AFFECTED BY SUPPLY PROBLEMS.



Having the right supplies—at the right place—at the right time—can mean the difference between success and defeat.

A lack of supply discipline is disrupting the supply chain in Iraq. Before you shrug your shoulders and say “*It’s not my problem,*” consider this:

A lack of supply discipline in Iraq has led to the unnecessary and costly loss of far too much materiel.

That’s equipment and supplies that you don’t have to accomplish your mission. It may mean a critical lack of items that put your life at risk.

It’s time to restore discipline to the supply system, and that discipline starts with you!

PS MORE →



Personal Responsibility

You have lots of gear you are expected to maintain and use. You've signed for some items like TA-50. Other items are simply under your personal control.

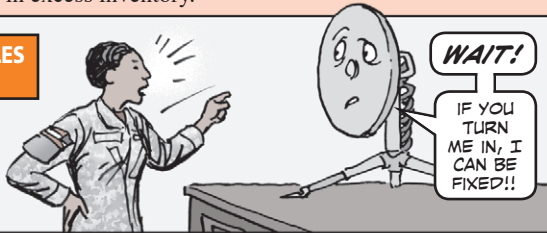
But, your personal responsibility isn't based on signed receipts or records. AR 735-5, *Policies and Procedures for Property Accountability* (Feb 05), defines command, direct, custodial, supervisory and personal responsibility.

You have **personal responsibility** to safeguard and properly dispose of all Government property you are issued, that you acquire, that comes under your control, or that is provided to help you accomplish your mission.

If while you're on patrol you find Government property, like a pair of night vision goggles, your personal responsibility is to report it to establish asset visibility. You can't keep them if they are excess to your unit's authorization. They must be turned in through supply. Why? Because some other soldier may be missing the NVGs that he's authorized and needs. Your responsibility is to have what you're supposed to have, maintain it, and turn in excess inventory.

MAKE SURE REPARABLES ARE TURNED IN!

THAT'S IT FOR YOU, I'M ORDERING A NEW DISH!



Command and supervisory responsibility are obligations of positions held. This obligation cannot be delegated. It includes ensuring:

- the security of all property
- that subordinates maintain custody, care for, use and properly dispose of all property
- the enforcement of security, safety and accounting for property

Direct responsibility occurs when an individual signs a hand receipt, receives formal written delegation or is assigned as an accountable officer.

Custodial responsibility is borne by people in the supply chain who work in supply rooms, stocks, warehouses, and are rated by and answerable to a person who has direct responsibility.

FIRST SERGEANT! HOW COME I CAN'T GET A REPLACEMENT FOR THE NVG'S WE LOST ON PATROL?

BRAVO COMPANY IS BRAGGING ABOUT THEIR EXTRAS IN THE DINING HALL!!



ORDER ONLY WHAT YOU NEED... DON'T DOUBLE ORDER!

BUT WE ORDERED THAT PART SIX WEEKS AGO!

I KNOW!

I THINK I'LL TRY A PRIORITY REQUEST SINCE IT'S BEEN SO LONG!



Operation Total Recall

To restore discipline and to establish visibility of Army assets, the Army G4 launched Operation Total Recall.

Operation Total Recall required a total accounting of whether a unit had all of the equipment listed on its hand receipt. It also required units to report equipment found in their unit areas that was not listed on their hand receipts.

The results were impressive. A total of 17,225 items were returned to the Army inventory. Their value...\$117 million!

Be a part of ensuring that Army assets are where they should be:

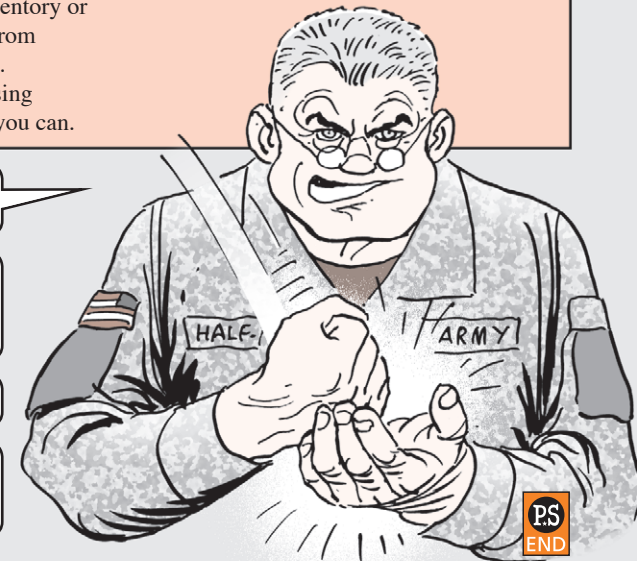
- Maintain the assets for which you have personal, supervisory or command responsibility.
- Don't carry excess inventory or you'll prevent others from having what they need.
- Report found and missing equipment as soon as you can.

ENSURE ARMY ASSETS ARE WHERE THEY SHOULD BE.

MAINTAIN ASSETS FOR WHICH YOU HAVE PERSONAL, SUPERVISORY OR COMMAND RESPONSIBILITY.

DON'T HOARD EXCESS INVENTORY!

REPORT FOUND AND MISSING EQUIPMENT AS SOON AS YOU CAN!



ORDERING SOLUTION FOR TRAILER LIGHT AND BRAKE TESTER

On page 61 of PS 659 (Oct 07), we gave you an NSN for a trailer light and brake tester, but that NSN is no longer valid. Still want the tester? You can get it through local purchase. The item manager recommends going through Lite Check, Inc., in Spokane, WA, at (800) 343-8579 or email info@lite-check.com Get more info at this website: www.lite-check.com

DECIDE ON LIFE

Too many soldiers are dying needlessly from preventable accidents. The Army provides two pocket-sized tools to help reduce accident injuries and death. The *Accident Risk Assessment for Individuals* helps soldiers assess their personal risk. The *Leader's Accident Risk Assessment of Subordinates* helps supervisors assess their soldiers' risks. The tools are available on the Combat Readiness Center/Safety website under Awareness Information: <https://crc.army.mil/riskassessments>

M3 Tripod T&E Pin NSN Change

The NSN for the quick-release pin used on the M3 tripod traverse and elevation mechanism has changed to NSN 5315-01-529-9820. Make a note of this on WP 0145 00-3/4, Item 12, in TM 9-1005-245-13&P until the TM is updated.

M249 SHORT BARREL BFA

Gunners can now order a blank firing attachment (BFA) for their M249 machine gun's short barrel with NSN 1005-01-537-0491.

Non-chromate Aircraft Primer NSNs

GSA has just assigned NSNs to some newly-developed non-chromate primers for military aircraft. These two-component primer coatings are corrosion-inhibiting and chemical resistant, but do not include potentially toxic chromium.

NSN 8010-01-	MIL SPEC	Class	Size
555-3386	MIL-PRF-23377	Type 1, Class N	1-qt
555-3381	MIL-PRF-23377	Type 1, Class N	1-gal
555-3383	MIL-PRF-23377	Type 2, Class N	1-gal
555-3388	MIL-PRF-85582	Type 1, Class N	1-qt
555-3385	MIL-PRF-85582	Type 1, Class N	1-gal

M1117 ASV Parts and Help

Use NSN 2520-01-533-1518 to get the universal joint parts kit for the armored security vehicle (ASV). This NSN replaces the one shown as Item 18 in Fig 9-1 of TM 9-2320-307-24P. Use NSN 5305-01-437-4384 to order the turret mounting bolt, Item 5 of Fig 19-1. The NSN listed in the TM gets the wrong bolt. If you have questions, comments or suggestions about the M1117, email: ASV@acom.army.mil

M939-SERIES TRUCK ABS TROUBLESHOOTING

Need a troubleshooting tool for the anti-lock brake system (ABS) on your M939-series trucks? Order the infocentre diagnostic box using NSN 5895-01-515-9443. Check out Page 14 of PS 646 (Sep 06) for more information: <https://www.logsa.army.mil/psmag/archives/PS2006/646/646-14.pdf>

TANK TOOL KIT T57366 OBSOLETE

Because tool kit T24523 (Shop Equipment, Artillery Maintenance, Set N, Less Power, NSN 4933-00-754-0704) is almost identical to tool kit T57366 (Tank Turret and Artillery Mechanics Supplemental, NSN 4931-01-155-5307), the Army is making T57366 obsolete. The three T57366 tools that were not part of T24523 have been added to T24523.

The three tools added are:

- dial indicator holder, NSN 5120-00-390-5446
- dial indicator, NSN 5120-00-227-8840
- torque wrench, NSN 5120-00-221-7983

Units will soon be asked to turn in T57366 tool kits.

HEMTT Tow Bar Light Harness

Need the tow bar light harness for your M984 wrecker? It's shown as Item 1 in Fig 139 of the HEMTT IETM (EM 0232), but you can't get the right part using the NSN and part number that are listed. So until this problem is fixed, order it directly from the OEM, OshKosh Truck Corporation, at (920) 233-9522.

New NSN for M1089's Pressure Switch

Stop using NSN 5930-01-384-1534 to order a new pressure switch for your M1089 FMTV wrecker. Use NSN 5930-01-529-6304 instead. The new NSN also brings a CD with instructions for calibrating the crane in the field. And you won't have to supply the model and serial number to the manufacturer for calibration anymore.

SATS Generator RESET POCs

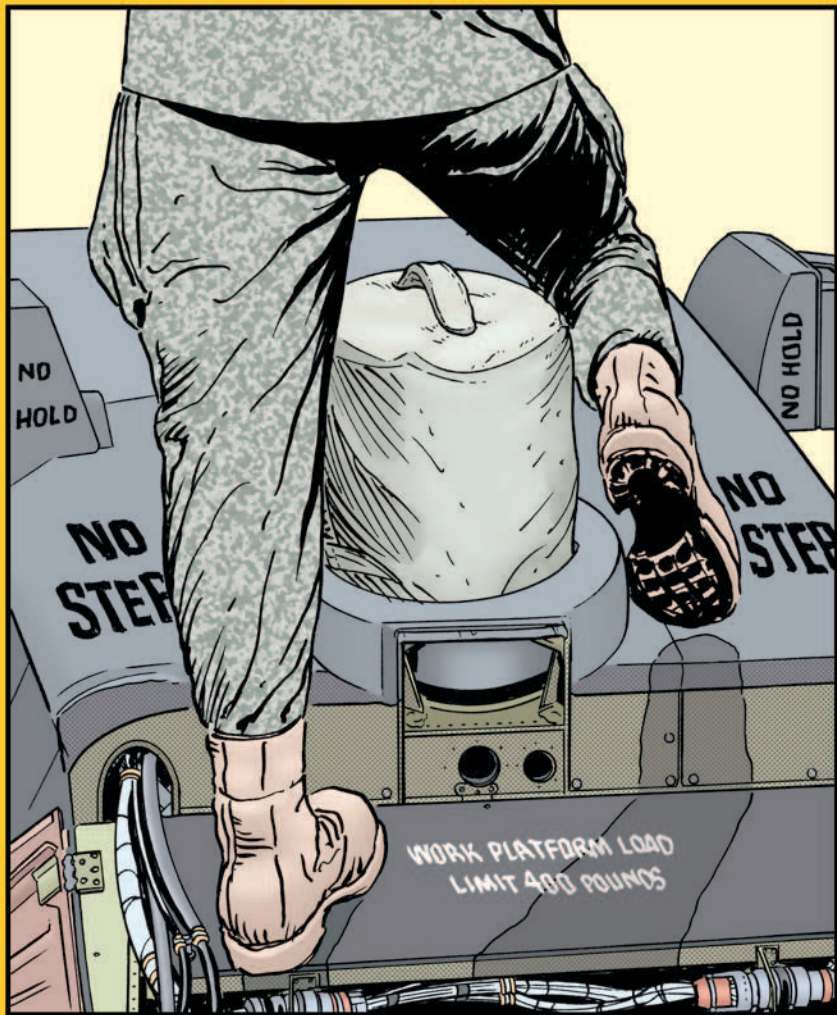
Generators that are part of the standard automotive tool set (SATS) can be turned in for overhaul through the RESET program in either SWA or your home station through these POCs:

- **Kuwait**, Eric Lee, eric.v.lee@kuwait.swa.army.mil, DSN 318-430-4654, 011-965-389-4654
- **East coast**, James Bonner, james.bonner2@us.army.mil, DSN 236-7153, (910) 396-7153
- **Midwest**, Edward Michek, edward.michek@us.army.mil, DSN 663-2628, (254) 553-2628
- **West coast and Pacific**, Darrell Lyons, darrell.lyons@us.army.mil, DSN 315-456-2774, (808) 656-2774

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?

If it says NO STEP...



**...then keep your
big feet OFF!**