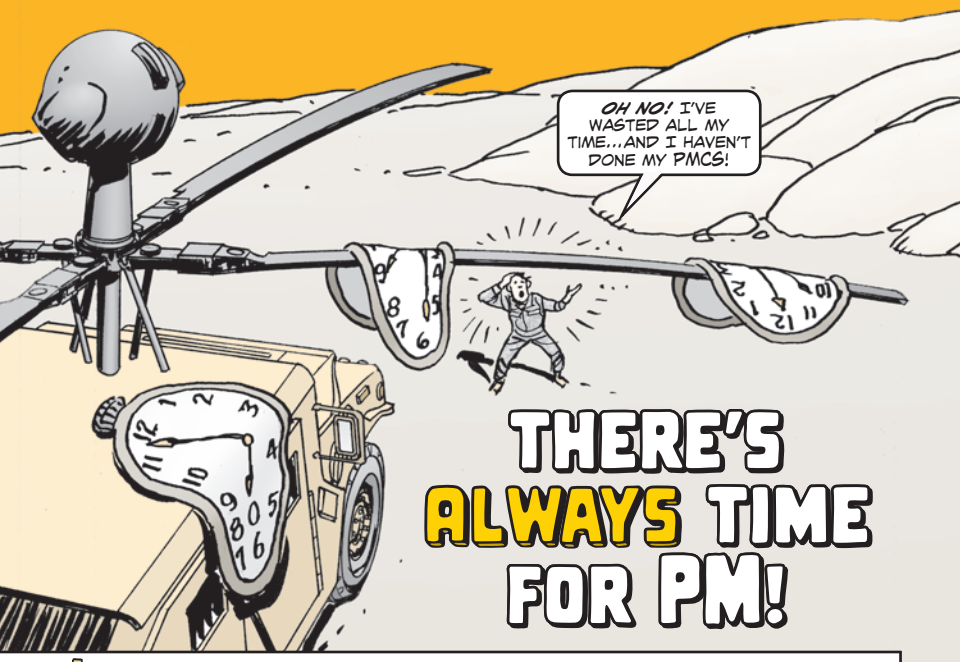
Issue 690

PS

May 2010

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-690



THERE'S ALWAYS TIME FOR PM!

Like money, once time is spent it's gone! Once an hour, a minute, or a second is over, it's over forever. You can't reclaim time, but you can redeem the remaining time.

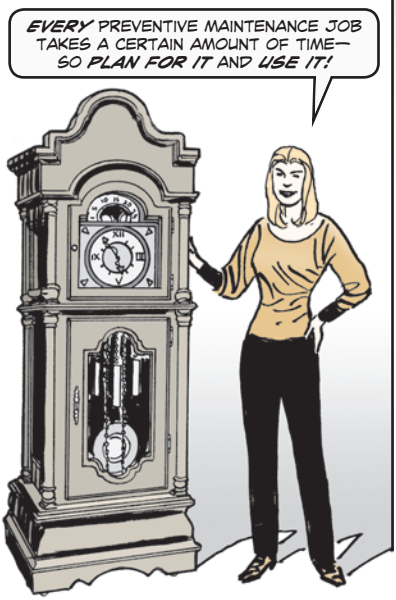
At PS, we believe one of the best forms of time redemption is using it to do preventive maintenance.

NCOs, it is your duty to make sure that the right amount of time is allocated for each PM job so that the task is not rushed through and done poorly.

Mechanics and maintainers, it is your duty to take every minute that is necessary of that allocated time so that the task is done thoroughly and right.

The age-old question, "If you can't find the time to do the job right, how are you going to find the time to do the job over?" should cross your mind before you assign or begin a PM task.

Even if you find the time to try again, some PM jobs are life and death matters and you might not get a second chance for a "do over."



PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-690, 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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You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems and questions or comments on material published in PS.

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

Or email to:
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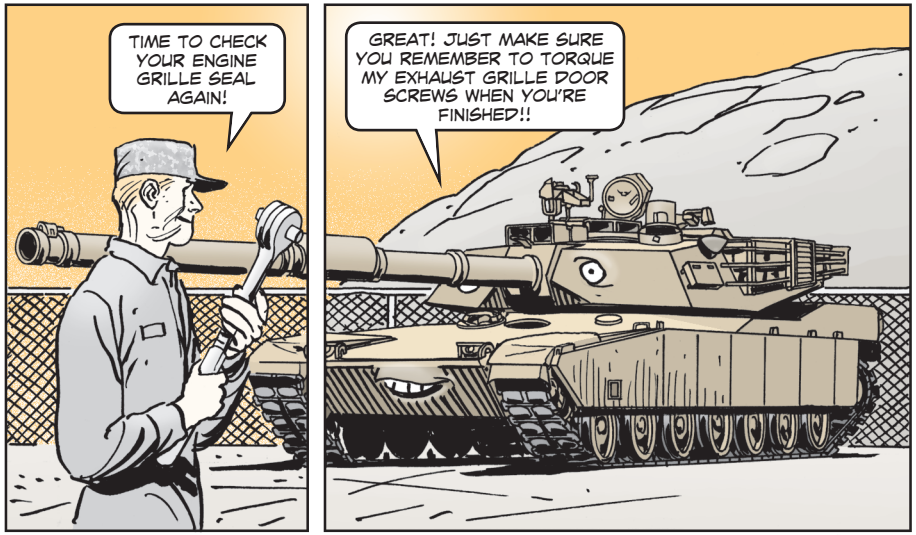
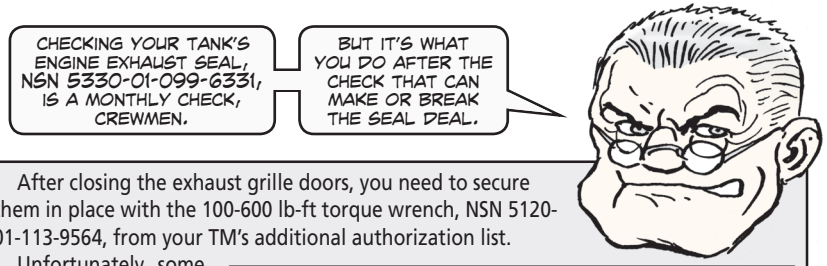
M1-Series Tanks...

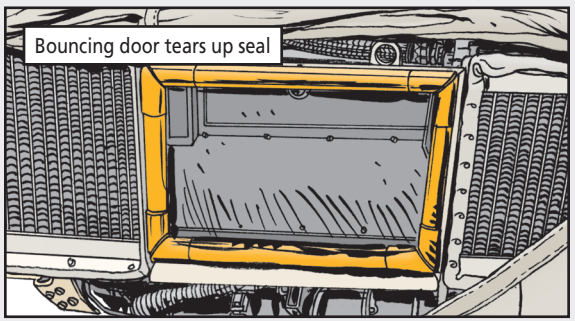
Seal PM Is a Team Effort

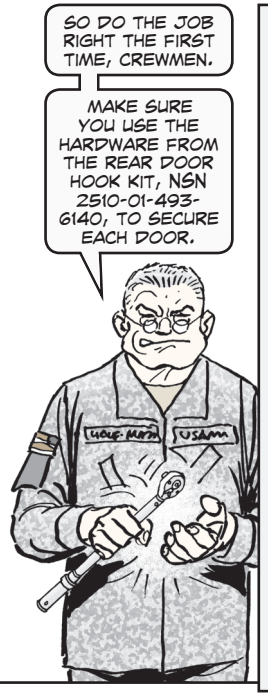




After closing the exhaust grille doors, you need to secure them in place with the 100-600 lb-ft torque wrench, NSN 5120-01-113-9564, from your TM's additional authorization list.

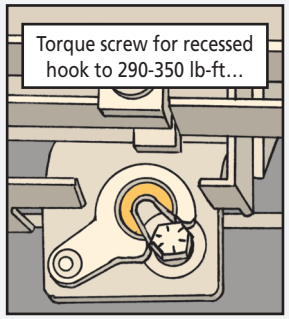
Unfortunately, some crewmen try to use a regular wrench to tighten the screws. If the screws are not torqued, they loosen. Loose screws let the grille doors bounce up and down and tear the seal. Then you have to call in a mechanic to replace it.

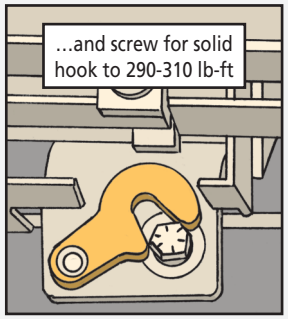

Bouncing door tears up seal



Next, apply a light coat of antiseize compound, NSN 8030-00-597-5367, to the threads of the kit's screw. That makes the screw easier to remove next time.

Finally, torque the screw. The cargo hook used on your tank will determine the torque value. If the hook has a recessed area, torque the screw to 290-350 lb-ft. If the hook is solid, torque the screw to 290-310 lb-ft.


Torque screw for recessed hook to 290-350 lb-ft...


...and screw for solid hook to 290-310 lb-ft

Also, you may notice a little gouging on the surface of the cargo hooks as you torque down the screws. The cargo hooks are made from a lower-grade steel, so some gouging is normal.

Don't let it stop you from tightening the screws to the proper torque, though. Replacing a cargo hook is a lot cheaper than buying a new grille door or exhaust seal.

Stryker...

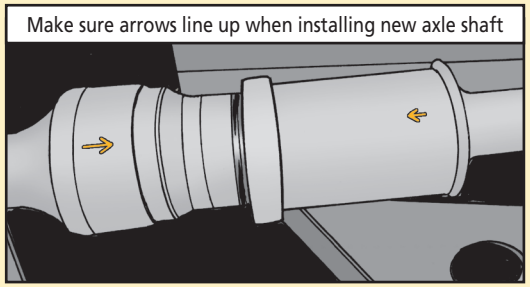
Line Up Axle Shaft Pieces

Mechanics, when it's time to replace a Stryker's axle shaft, there's a little more involved than just slapping the shaft in place.

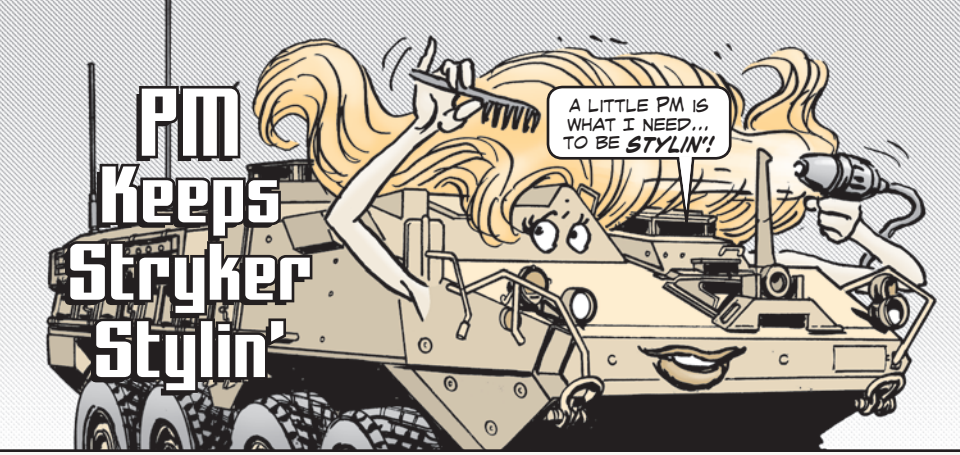
If you look closely, you'll notice two arrows, one on each piece of the shaft. Those arrows aren't there for decoration. They're needed to help you line up the new shaft with the differential.

If the arrows aren't lined up when the shaft is installed, you'll tear up a perfectly good differential.

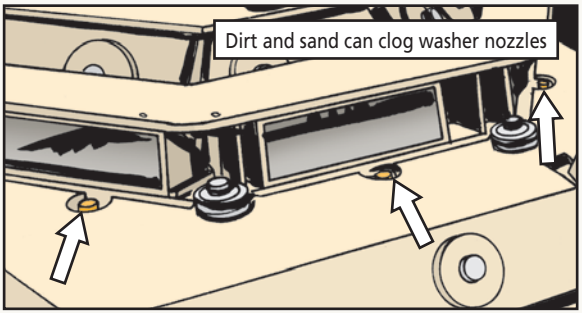
So take your time, locate the arrows and make sure they line up when you install the new shaft.


Make sure arrows line up when installing new axle shaft

PM Keeps Stryker Stylin'

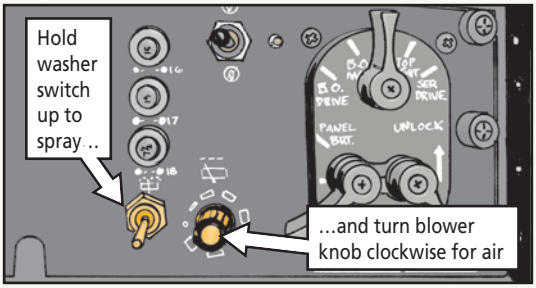


When the mud and dirt are flying, you're gonna need the periscope washer and blower. It doesn't take much mud, dirt and sand to clog the washer nozzles and air blower holes. So a little PM now will keep them both working later.



The operator's manual tells you to use the washer and blower during your weekly PMCS. That's to make sure it works, so thinking you have a clean periscope is not an excuse for avoiding this check.

You'll find the washer switch and blower knob on the driver's lighting control module. Press up and hold the spring-loaded washer switch to spray cleaner on the periscopes. Turn the blower knob clockwise to send out blasts of air. The farther you turn the knob, the shorter the interval between air blasts.

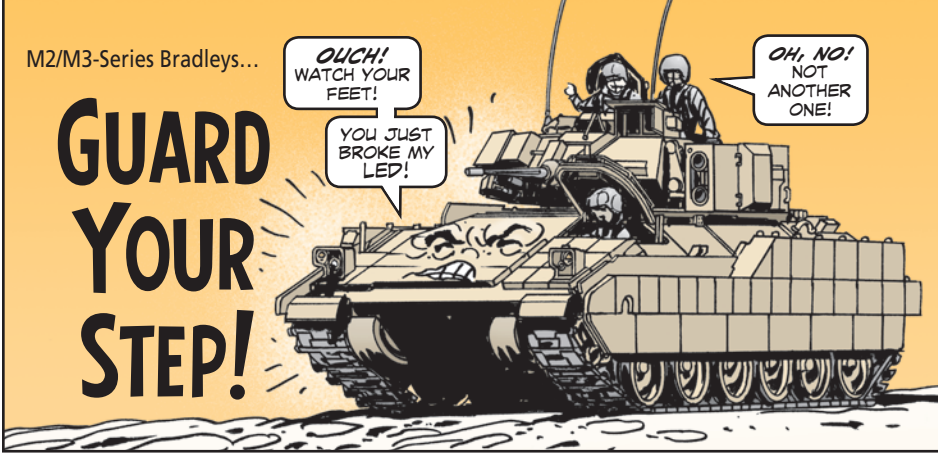


After checking the washer and blower, don't forget to take a look at the washer reservoir. If it's low, fill it with windshield cleaning compound, NSN 6850-00-926-2275.

Keep this PMCS check in mind and your Stryker will be stylin' in no time.

M2/M3-Series Bradleys...

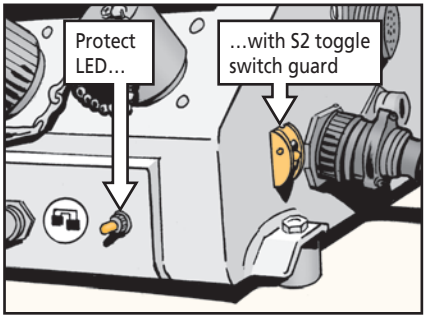
GUARD YOUR STEP!



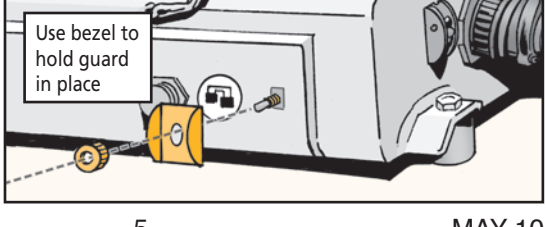
If you've got big feet (or even little ones), you need to protect the light-emitting diode (LED) on your Bradley's vehicle distribution box.

The SLAVE RECEPTACLE POWER light gets snapped off if a driver or mechanic doesn't watch where he puts his feet when entering or leaving the driver's compartment.

Switch guard, NSN 5930-00-687-1079, will protect the LED. That's the guard that's already protecting the S2 toggle switch. Using it on the LED will keep the light burning bright when the slave receptacle is powered.

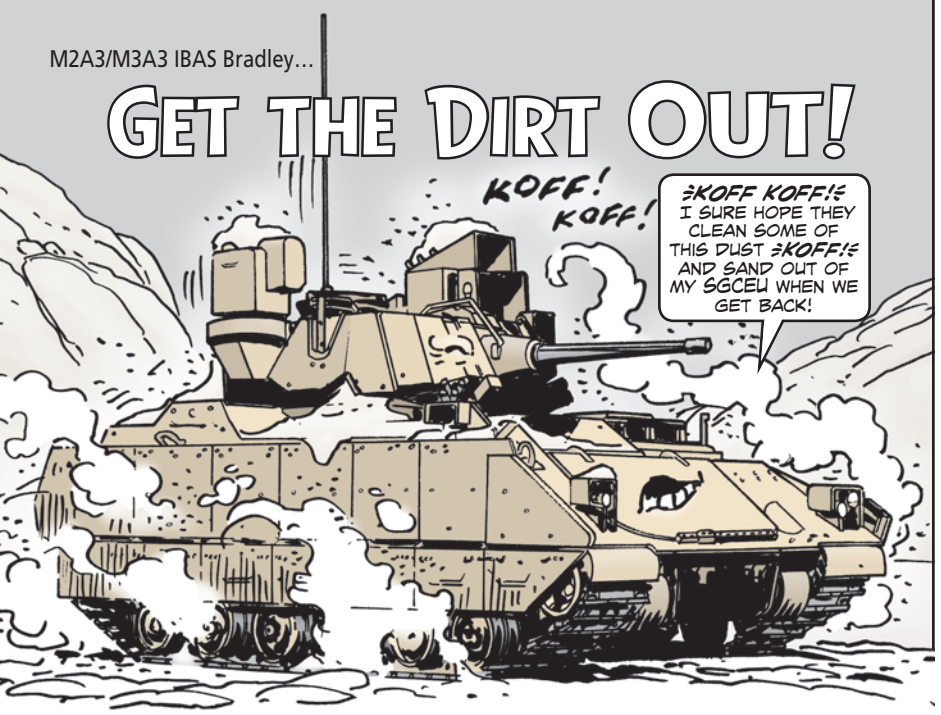


1. Remove the bezel from the LED socket.
2. Slip the guard over the LED.
3. Replace the bezel to hold the guard in place.



M2A3/M3A3 IBAS Bradley...

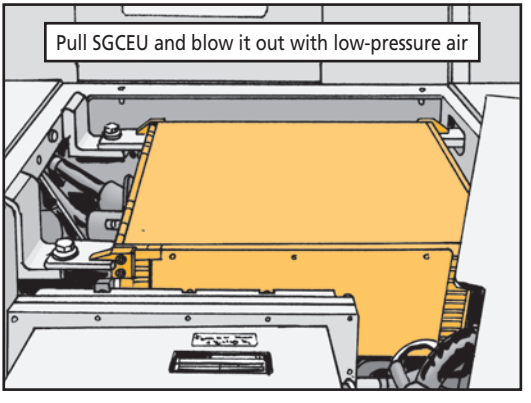
GET THE DIRT OUT!



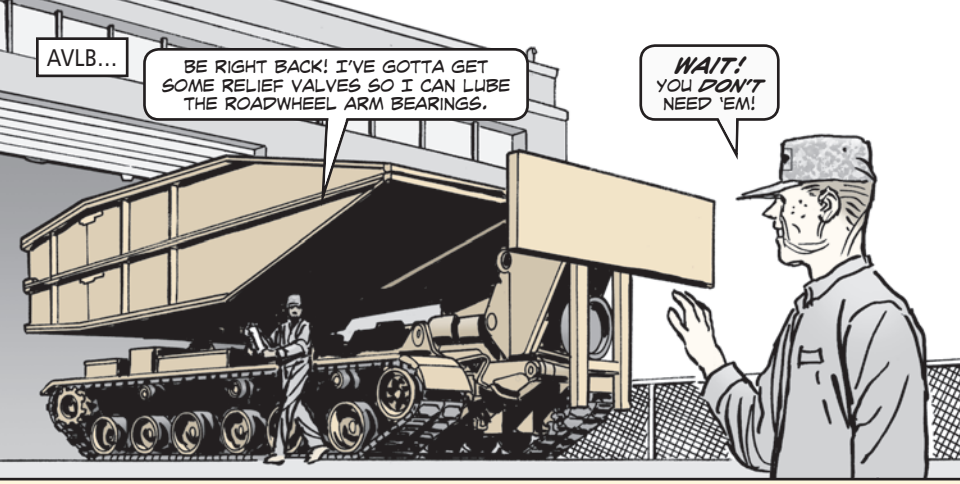
Some periodic housecleaning goes a long way towards keeping your Bradley's second generation common electronics unit (SGCEU) on the job, crewmen.

The SGCEU's cooling fan pulls in a lot of sand and dirt, gunking up the insides. Pretty soon, the cooling fan is fighting a losing battle. The SGCEU overheats and fails.

Before that happens, you should remove the SGCEU from under the turret floor. Then blow out the sand and dirt that has accumulated inside the unit with low-pressure (30 psi) dry air.



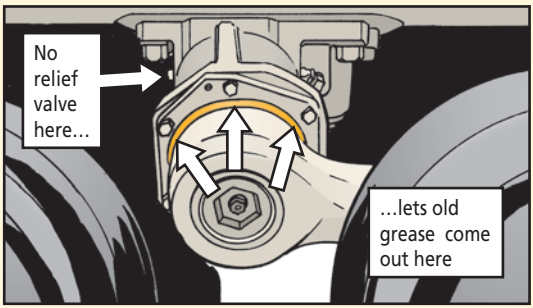
Since the unit is coded for Depot repair, you can't remove the cover. So blow the unit out at the fan opening. How often you clean it depends on your location. In Iraq, it should probably be done every few days.



SOMETHING MISSING? NOPE!

How many times have you hooked a grease gun up to a lube fitting and pumped away until clean grease comes out of the relief valve? Lost count, haven't you?

In fact, crewmen have gotten **very** used to doing it that way over the years. So they're faced with a bit of a challenge when its time to lube the roadwheel arm bearings on the AVLB.



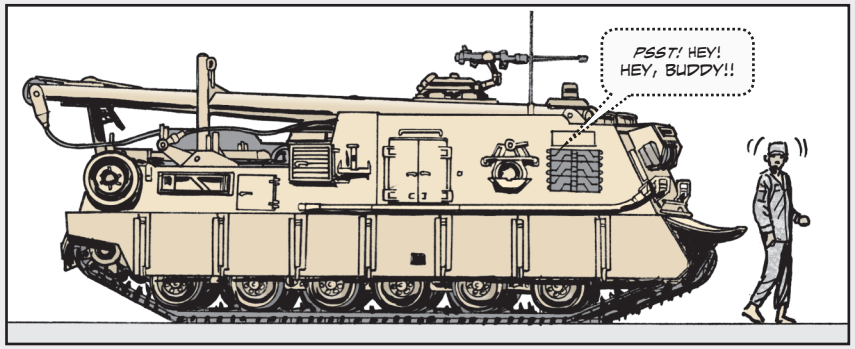
They've got the grease gun and there's the lube fitting, but where's the relief valve? Some crewmen are so flabbergasted that they immediately remove the bolt opposite the lube fitting, screw in a relief valve and start pumping away.

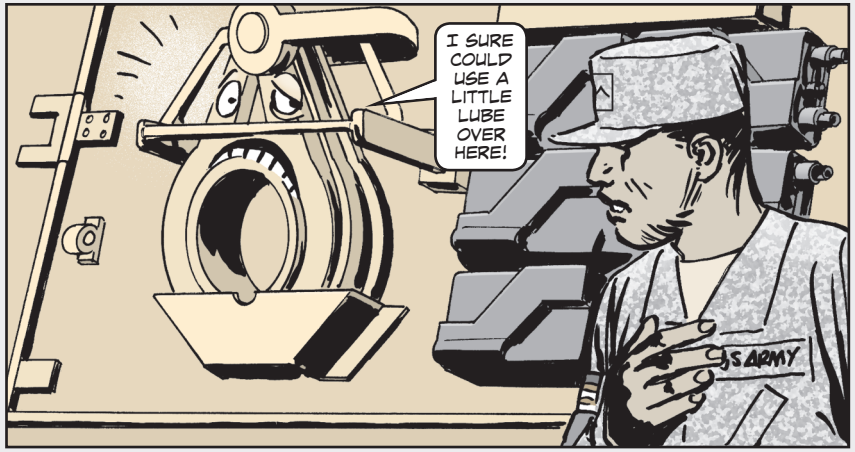
Problem is, there's not supposed to be a relief valve. The old grease is supposed to be forced out between the arm and arm retainer, not through a relief valve.

If they install a relief valve, grease won't circulate through the entire housing. Old grease won't get replaced and some of the bearings may not get any lube at all. That's a quick way to serve up burned-out bearings.

So, make sure you lube the roadwheel arm bearings quarterly with GAA like it says in LO 5-5420-202-12 (Mar 92). Just don't add a relief valve before you do it. Then make sure you wipe away the excess grease that comes out between the arm and arm retainer.

MAKE SNATCH BLOCKS YOUR FRIENDS!



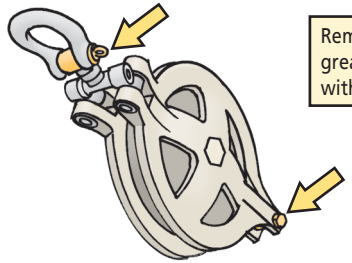


During recovery operations, the M88A2's three snatch blocks can be your best friends or your worst enemies. And a few squirts of GAA are what makes the difference.

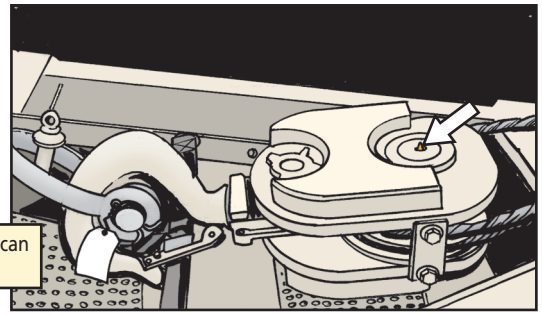
The 6.5-, 35- and 140-ton snatch blocks are designed to turn freely to center out the load. If they can't because of a lack of lube, the winch cables can twist and be damaged.

The snatch blocks aren't lubed according to any set interval, but they should be lubed after fording and after operation in mud or heavy dust.

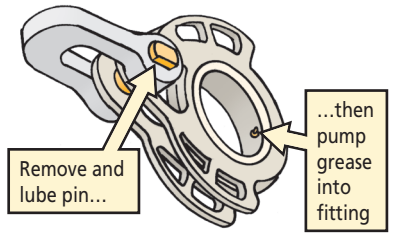
The 6.5-ton snatch block is often forgotten because it's stored inside the engine deck storage box. This snatch block has no grease fitting. Just remove the top and bottom pins and lubricate with GAA. Wipe off any excess grease with a wiping rag, NSN 7920-00-205-1711.



The 35-ton snatch block is on top of the vehicle in the boom tray. Pump GAA through the grease fitting until clean grease is visible. Wipe off the excess grease.



You'll find the 140-ton snatch block stored in a bracket on the right side of the vehicle. Remove the pin at the top of the snatch block and lube it with GAA. The grease fitting is located on the inside bottom of the snatch block. Pump in GAA until you see clean grease coming out. Then wipe off the excess.



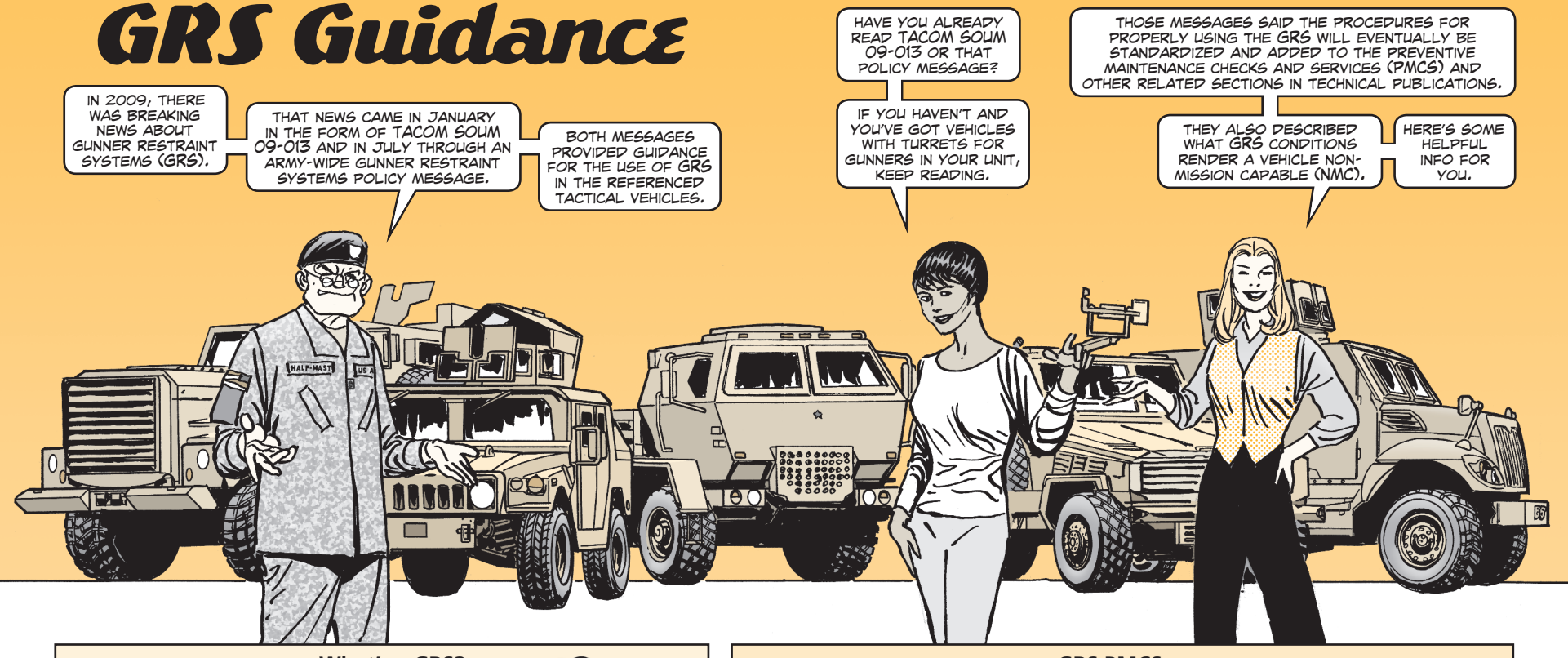
M981 FISTV PCU Screw

To get a new screw for the power control unit (PCU) mounting bracket on your M981 FISTV, use NSN 5305-00-038-8994 (PN NAS1352-4-14P, CAGE 80205). NSN 5305-00-978-9380 (PN MS16997-61, CAGE 96906), which is shown as Item 2 in Fig 88 of TM 9-2350-266-24P (Aug 92), is a terminal item.

M58, M1068/M1068A3 Radio Operator's Seat Flat Washer

Use NSN 5310-01-396-1761 (PN NAS1149C0763R, CAGE 80205) to get a new flat washer for the radio operator's seat in the M58 smoke obscurant carrier and M1068/M1068A3 command post carriers. NSN 5310-00-167-0805, which is shown as Item 14 in Fig 249 of TM 9-2350-261-24P (Aug 05) and Item 16 in Fig 268 of TM 9-2350-277-24P (Oct 03), is no longer available.

GRS Guidance



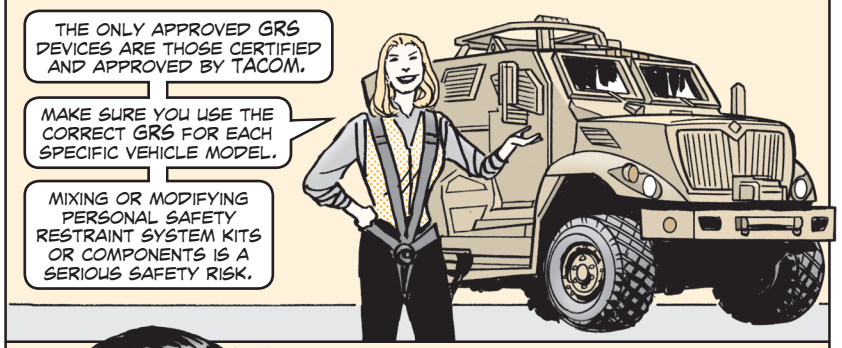
What's a GRS?

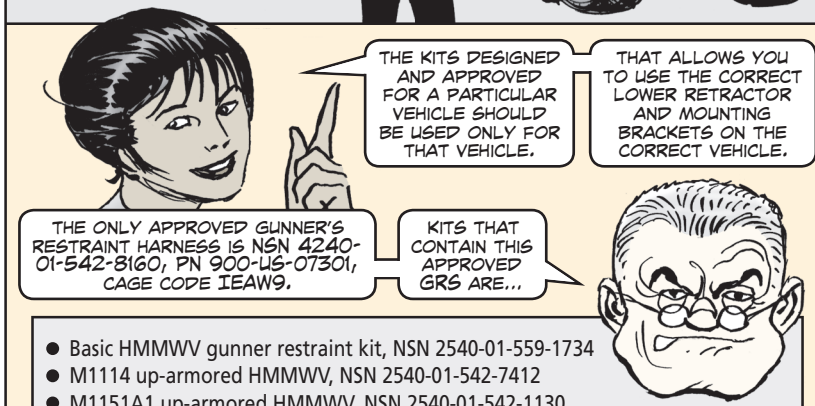
GRS PMCS

Check the harness, tail strap, mount retractor, buckles and clasp ends for security, damage and proper operation. If the harness or tail strap is missing, frayed, damaged, or doesn't fasten, adjust, retract or operate as designed, your tactical vehicle with the GRS is **NMC**.

Not using a working GRS could result in severe injury or death in a rollover accident.

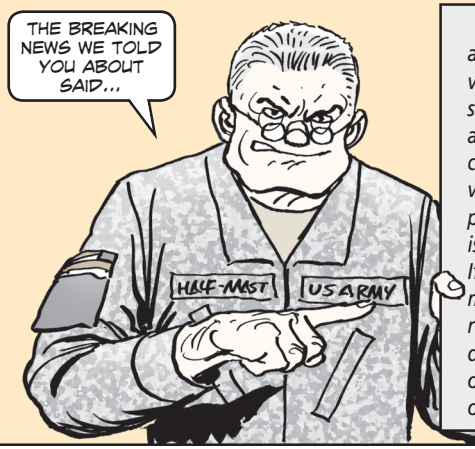
Which GRS is Best?





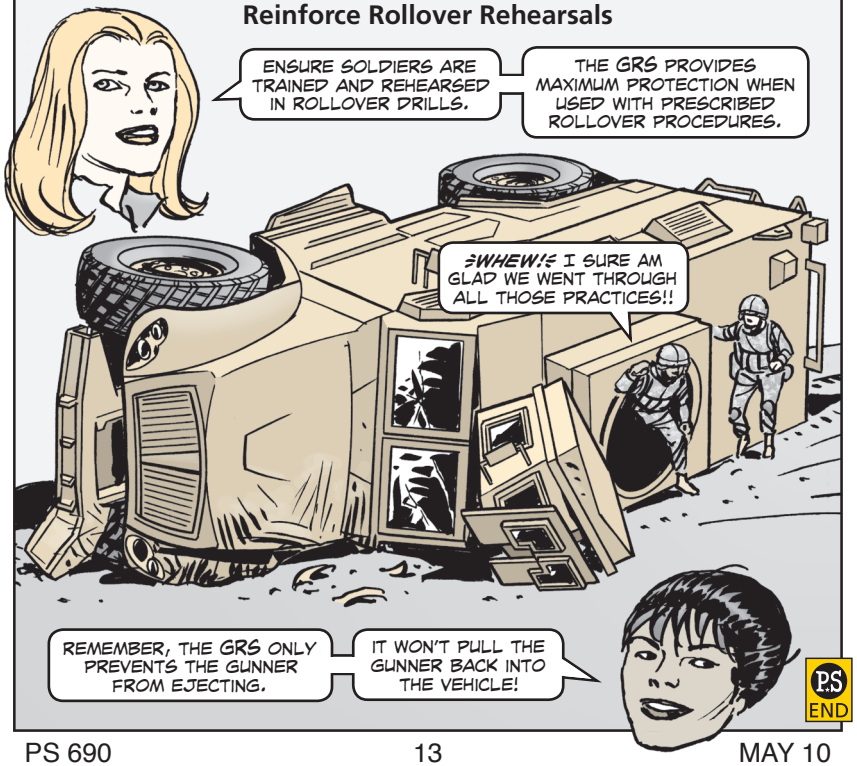
- Basic HMMWV gunner restraint kit, NSN 2540-01-559-1734
- M1114 up-armored HMMWV, NSN 2540-01-542-7412
- M1151A1 up-armored HMMWV, NSN 2540-01-542-1130
- M1167 TOW up-armored HMMWV, no kit (Use gunner restraint harness, NSN 4240-01-542-8160, and the lower retractor, NSN 2540-01-573-9444)
- FMTV low signature armored cab (LSAC), NSN 2540-01-569-6578
- FMTV RADIAN armored crew kit (RACK), NSN 2540-01-569-8599 (Unarmored trucks can also use the RACK design)
- Cougar/JERRV (all models), NSN 2540-01-542-7412
- CAIMAN (all variants); the M-ATV; MaxxPro Ambulance, MaxxPro Cat I, MaxxPro Dash, MaxxPro MEAP and MaxxPro Plus; RG-31A0 (MKI, MKII, MKIII), RG-31A1 (MKV), RG-31A2 D04, RG-3142 (MKVE), RG-31A2 RTR and the RG-33 MRAP (all models), NSN 2540-01-572-5699

Deadline Guidelines

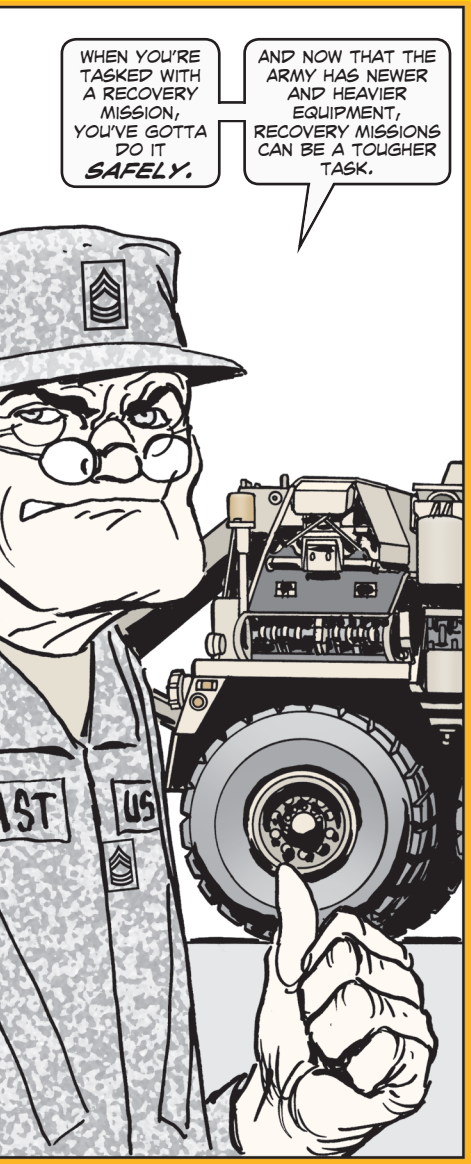


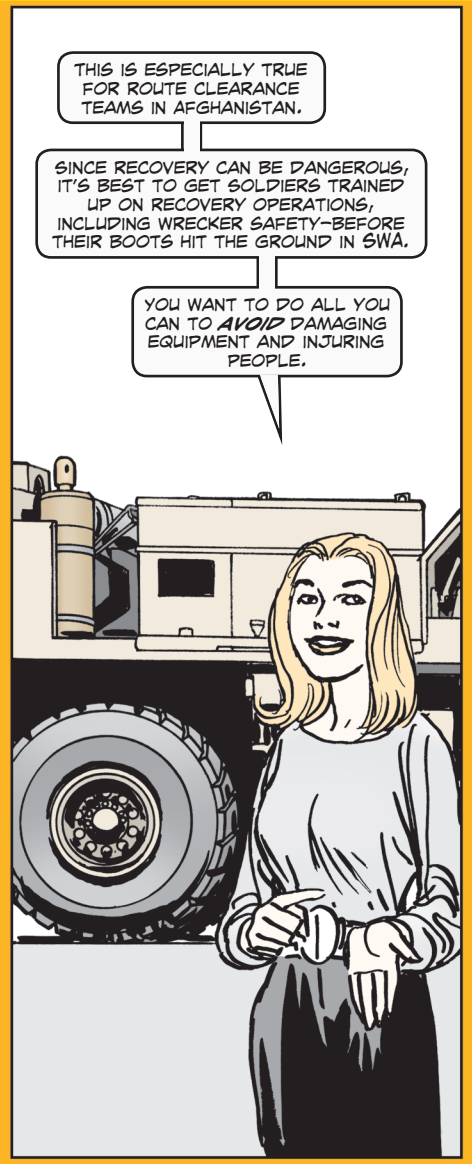
The absence of a TACOM-approved GRS in wheeled vehicles with turrets will subject that vehicle to an administrative deadline. Unit commanders can "circle X" the vehicle fault if the gunner's position is not manned when it is being used on its mission. If the gunner's position is manned, commanders or their representatives can make the decision to authorize dispatch of the vehicle based on urgency of mission requirements.

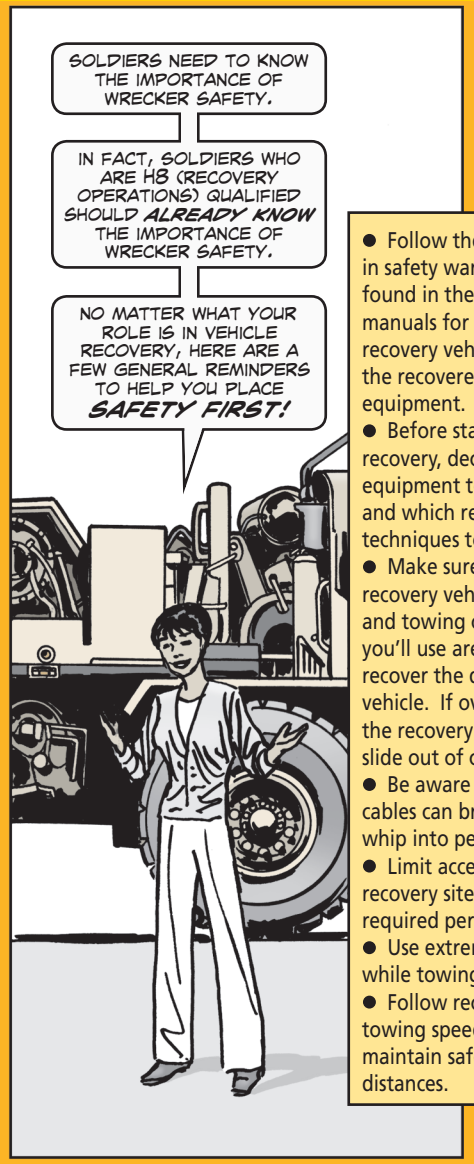
Reinforce Rollover Rehearsals



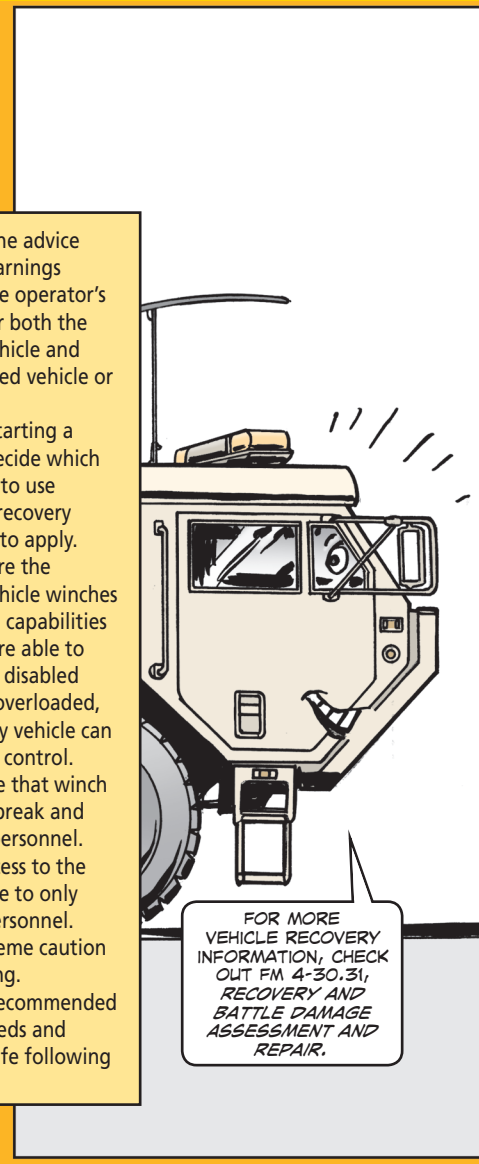
WRECKER SAFETY FOR ROUTE CLEARANCE TEAMS





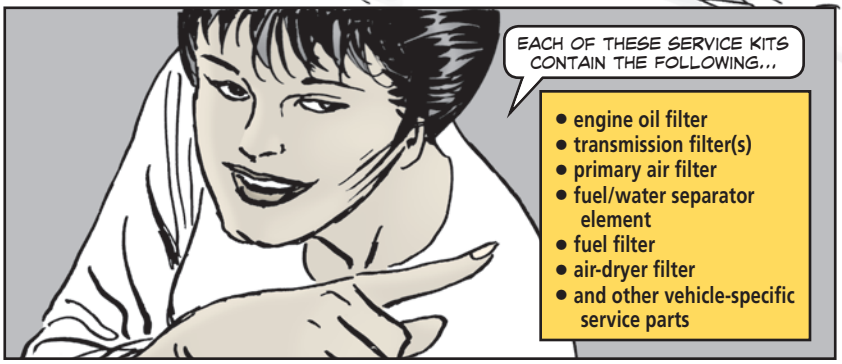


- Follow the advice in safety warnings found in the operator's manuals for both the recovery vehicle and the recovered vehicle or equipment.
- Before starting a recovery, decide which equipment to use and which recovery techniques to apply.
- Make sure the recovery vehicle winches and towing capabilities you'll use are able to recover the disabled vehicle. If overloaded, the recovery vehicle can slide out of control.
- Be aware that winch cables can break and whip into personnel.
- Limit access to the recovery site to only required personnel.
- Use extreme caution while towing.
- Follow recommended towing speeds and maintain safe following distances.



New Service Kits

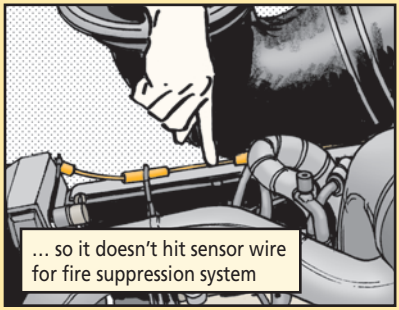
MRAP Vehicle	NSN
RG-33/RG-33 Plus	2990-01-570-3733
RG-31A2/A2M1/A2RTR	2990-01-570-3759
RG-31A3	2990-01-578-9652
Cougar	4910-01-576-3422
MaxxPro	2990-01-570-3792
MaxxPro Plus (Ambulance and Dash Service Kit)	2990-01-578-9655
Caiman/Caiman Plus	2990-01-570-3716



Under the Hood

Air Filter Canister Removal

Use a little TLC when you remove the air filter element's canister housing on the curbside of the vehicle. Do **not** set the housing on the sensor wire for the vehicle's fire suppression system (FSS). The weight of the housing will nick or cut the wire, causing the FSS to activate without warning.

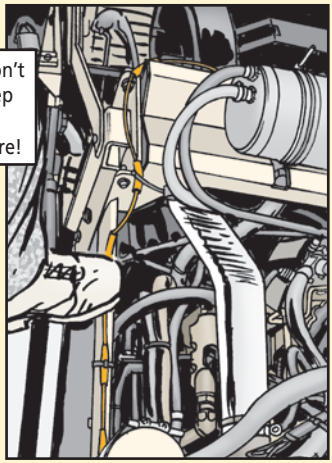


If that happens, you'll be blasted by a loud explosion, not to mention the gray, fine chemical dust that'll cover you and the engine and everything else within an arm's throw. What a mess! So easy does it when you remove the canister housing.

Sensor Wire Attire

Make it a habit to eyeball the FSS's sensor wire where it's attached to the engine shield. Look for a loose wire and connections. A loose wire that touches the engine also sets off the FSS!

And be careful where you place your boot while stepping around the engine. It goes without saying—do **not** step on the sensor wire!



WHILE IN TRAFFIC...

KEEP THESE POINTS IN MIND WHEN DRIVING YOUR MRAP IN TRAFFIC BECAUSE...

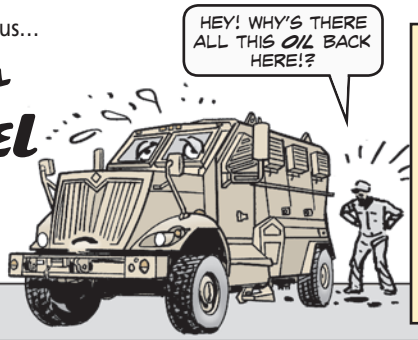
...TRAFFIC ACCIDENTS ARE BOUND TO HAPPEN AND THE MRAP IS ***NO EXCEPTION.***

THESE ARE POINTERS THAT ***OTHERS*** HAD TO LEARN THE ***HARD WAY.***

THEY'LL HELP ***YOU*** REDUCE UNEXPECTED MISHAPS AND "FENDER BENDERS."

- Don't drive too close to the vehicle in front of you. Maintain a "stand off" distance of at least "one vehicle" for every 10 mph that you drive.
- Gunners and vehicle commanders, warn your driver of any upcoming or possible traffic hazards.
- Drive defensively and expect the unexpected.
- Drive at speeds appropriate to conditions and terrain.
- Don't drive aggressively or rely on other vehicles to yield.
- Don't drive while fatigued. Vehicle commanders must make sure drivers are alert.
- Know your vehicle's blind spots. Keep the windows and mirrors clean.

Rear Wheel Seal Deal



Dear Half-Mast,

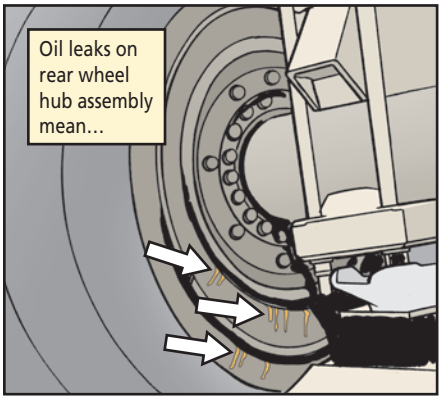
We are experiencing oil leaks with the rear wheel hub assembly on our unit's MRAP MaxxPro Plus vehicles. What is causing the leak? Are other units having this same problem?

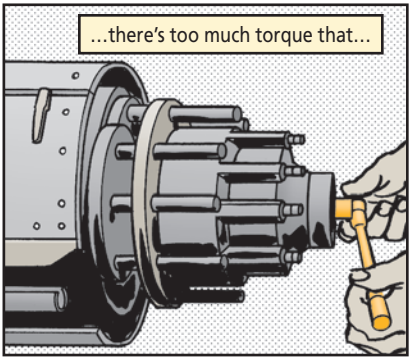
SFC M.S.F.

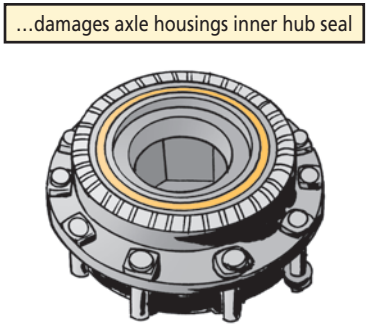
Dear Sergeant M.S.F.,

Yep. We've received several inquiries about oil leaks on the rear wheel hub assembly of the MRAP MaxxPro Plus vehicles.

The leak is usually caused by a damaged wheel seal. The seal gets ruined when a well-meaning mechanic tries to stop the leak by cranking more torque on the axle hub nut. This does ***not*** *fix the leak, but instead damages the seal, causing the leak to get worse. Then the wheel seal, NSN 5330-01-566-6178, has to be replaced.*







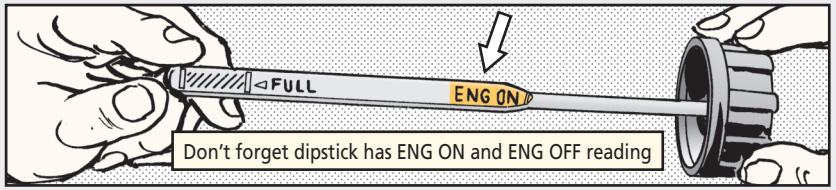
Mechanics, torque the axle hub nut to 200 lb-ft. WP 4-8.1 of TM 9-2355-318-23-3 shows how to remove and replace the wheel seal.

Half-Mast

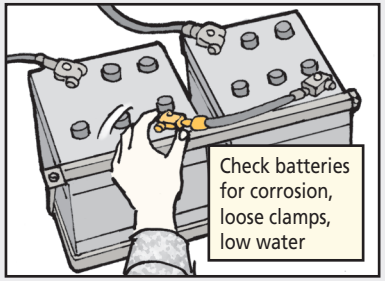
Patriot Missile System...

Plug in to Generator PM

Check fluids. Before start up, check both the oil and coolant. The generator tends to **use** oil, so it's critical you make sure it **has** oil. And remember the dipstick has both an ENG ON and ENG OFF reading. If you don't pay attention to which one you're reading, you could put too much oil in, which pops seals, or not enough oil, which destroys the engine.

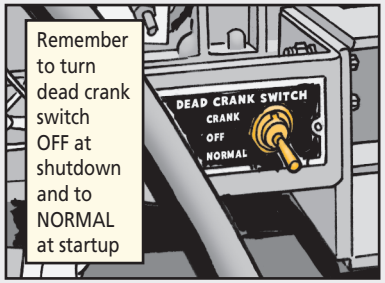


Don't forget batteries. If the generator sits for weeks without being started, count on the batteries going dead. At least every other week, check the batteries for corrosion and low water in the cells. Make sure the battery brackets are tight so that the batteries can't bounce around during operation. Then start the generator and let it run for an hour to recharge the batteries.



Get help filling the generator fuel tank. It's easy to overfill the tank if you do the job on your own and overfilling leads to leaks. While you fill the tank, have someone else watch the fuel gauge so you'll know when to stop.

Stay alive on the dead crank switch. If you don't remember to switch the switch to OFF at shutdown, the batteries will drain overnight. That sometimes hurts the batteries' ability to hold a charge. But also remember you must switch back to NORMAL for startup or else nothing happens. Then you might think something major is wrong, when it's just a switch that needs switching.

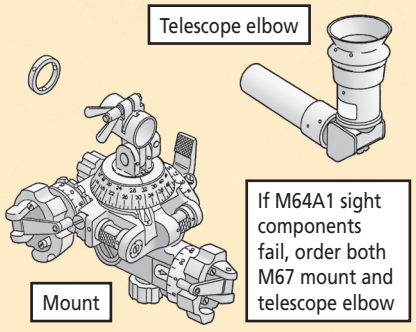


Mortars...

M67 Replacing M64A1 Sight

The M67 sight is replacing the M64A1 sight on all Army mortars. But that doesn't mean you should stop using your M64A1s.

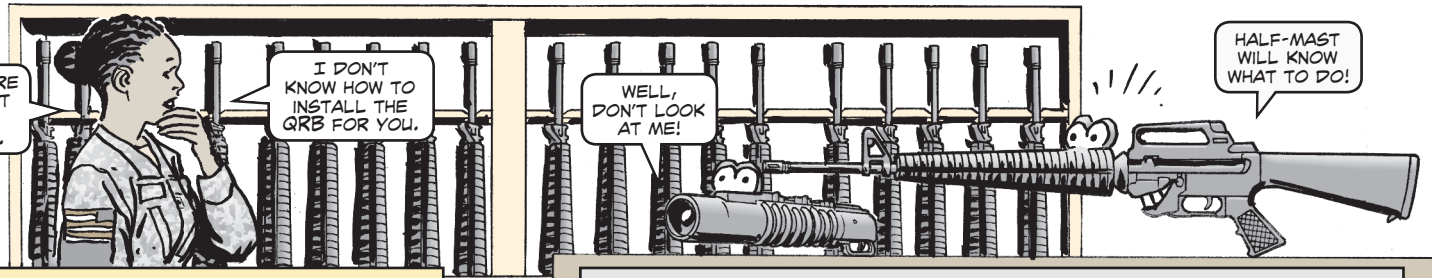
The M64A1 should be used until it's no longer serviceable. When either the M64A1 telescope elbow or telescope mount no longer works, you will need to order both the M67 telescope elbow, NSN 6650-01-341-5195, and the M67 telescope mount, NSN 6650-01-340-6082. You can't use M64A1 components with those of the M67.



The M64Al telescope mount, NSN 6650-01-201-8299, is eligible for unserviceable credit. The M64A1 telescope elbow, NSN 6650-01-211-3608, is not eligible for unserviceable credit because it's considered a consumable item.

If you have questions, contact TACOM's Joe Schmidt at DSN 786-8783, (586) 282-8783 or email: joe.schmidt@us.army.mil

How to Install QRB



Dear Half-Mast,

TM 9-1005-319-23&P is not very clear on how to install the quick release bracket (QRB) on the M16 rifle/M4 carbine for the M203 grenade launcher. Is there anyplace to look for instructions?

SGT C.H.

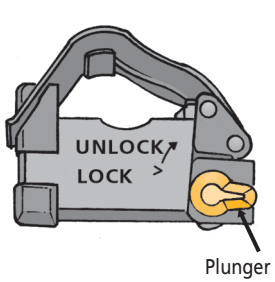
Sergeant C.H.,

Yes. Instructions for installing the quick release bracket onto the M203A2 grenade launcher begin on Page 2-47 of TM 9-1010-221-23&P. The bracket must be put on initially by the field maintainer, which was formerly called direct support. After that, the operator can put on and take off the M203A2.

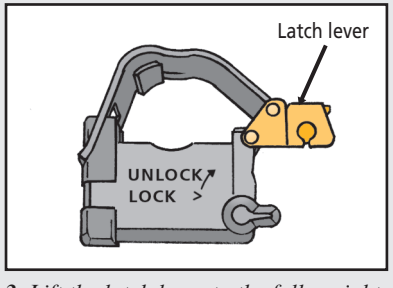
The following instructions are for operating the new style quick-release bracket when mounting the M203A2. These instructions will be added to the TM.

Opening QRB

1. *Facing the front of the QRB, turn the plunger clockwise until it stops. This is the unlocked position.*

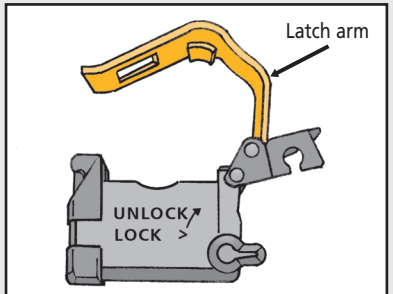


2. *Fully depress the plunger and hold it while pulling up on the latch lever until it pops open.*



3. *Lift the latch lever to the full upright position.*

4. *Lift the latch arm away from the hook.*

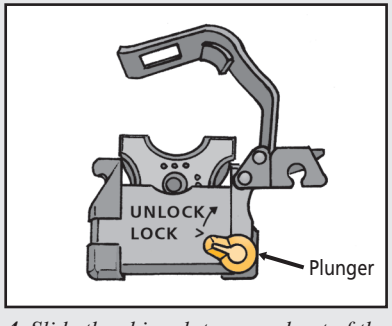


Removing the shim plate

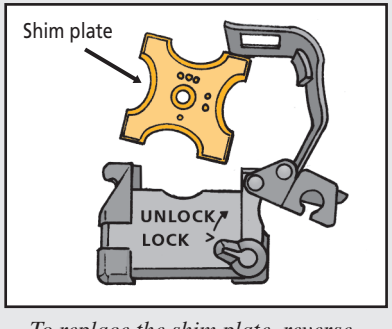
1. *Open the QRB.*

2. *Rotate the plunger counterclockwise until it stops in the locked position.*

3. *Depress the plunger and hold it down.*



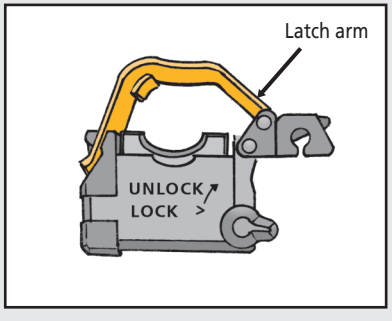
4. *Slide the shim plate up and out of the QRB.*



To replace the shim plate, reverse these steps. The procedure for determining the correct position of the shim is found in both TM 9-1010-221-23&P and the -10 TM.

Closing the QRB

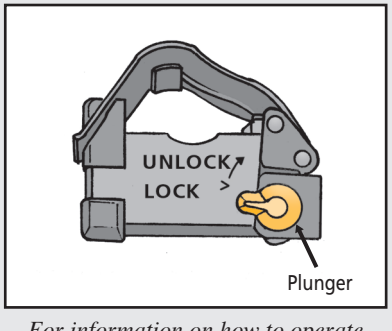
1. *Close the latch arm so that the latch arm hole catches the hook.*



2. *Rotate the latch lever down.*

3. *Depress the plunger and push the latch arm down to lock it in place.*

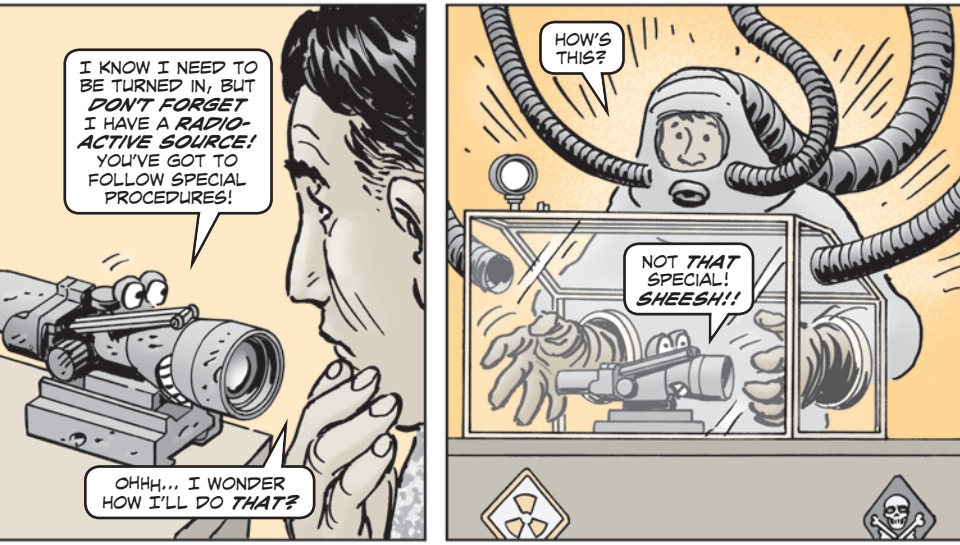
4. *Rotate the plunger counterclockwise until it stops in the fully-locked position.*



For information on how to operate the old style bracket, see the -23&P.

Half-Mast

SIGHTS REQUIRE SPECIAL TURN-IN



Three of the sights used on small arms contain radioactive material, which means you must follow special turn-in and shipping procedures for the sights. The sights are:

- M150 optical bore sight, PN TA31RCO-M150, NSN 1240-01-557-1897
- ACOG optical bore sight, PN TA31RCO-M4, NSN 1240-01-534-1114
- ACOG optical bore sight, PN TA31F, NSN 1240-01-514-8428

The turn-in procedures can be found in AEPS:

https://aeps2.ria.army.mil/commodity/mam/tacom_wn/mim10-009.html

Before shipping one of the sights, your unit property book officer must contact the sight's manufacturer, Trijicon Inc, to get a return authorization (RA) number. Call Trijicon at (800) 338-0563 from 9 am to 5 pm EST or email:

contractadministration@trijicon.com

Once you have an RA, your transportation officer can coordinate shipment of the sight by following part 173.424 in 49 CFR DOT regulation:

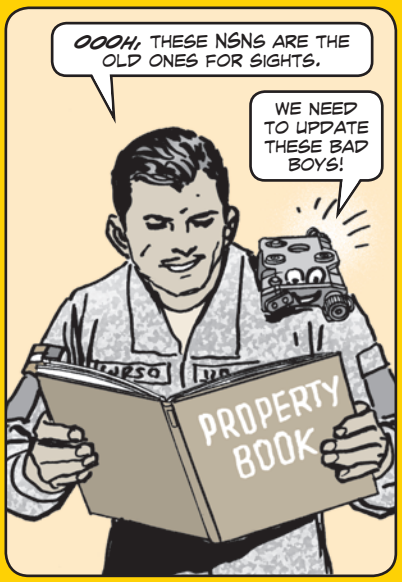
http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=49&PART=173&SECTION=424&YEAR=1999&TYPE=PDF

If you have questions, contact TACOM's Chad McDowell at DSN 793-0047, (309) 782-0047, or email:

chad.m.mcdowell@us.army.mil

Small Arms...

NEW NSNs FOR LASER SIGHTS



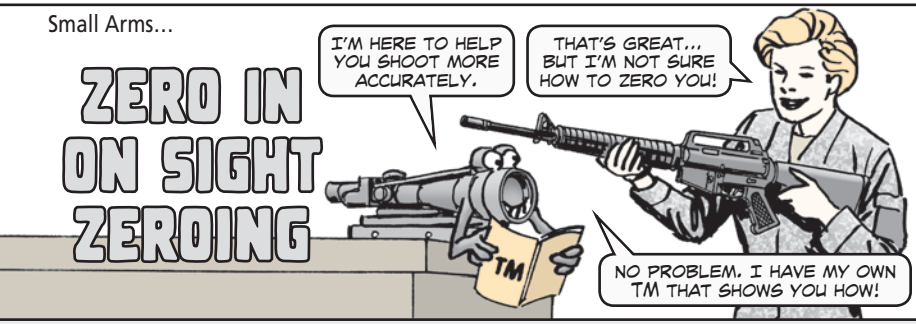
New NSNs have been established for laser sights used on small arms based on the sights' color. Update your property book with these NSNs:

Sight	Color	NSN 5855-01-
AN/PEQ-15 ATPIAL	tan	577-7174
AN/PEQ-15 ATPIAL	black	534-5931
AN/PEQ-15A2 DBAL	green	579-0062
AN/PEQ-15A2 DBAL	black	535-6166
AN/PEQ-14 ILWLP	tan	571-1258
AN/PEQ-14 ILWLP	black	538-0191
AN/PSQ-23 STORM	tan	577-5946
AN/PSQ-23 STORM	black	535-1905

Questions? Contact TACOM-Rock Island's Verne Christopherson at DSN 793-0077, (309) 782-0077, email: verne.christopherson@us.army.mil or Mark Johnson, DSN 793-2335, (309) 782-2335, email: mark.johnsonjr@us.army.mil

Small Arms...

ZERO IN ON SIGHT ZEROING

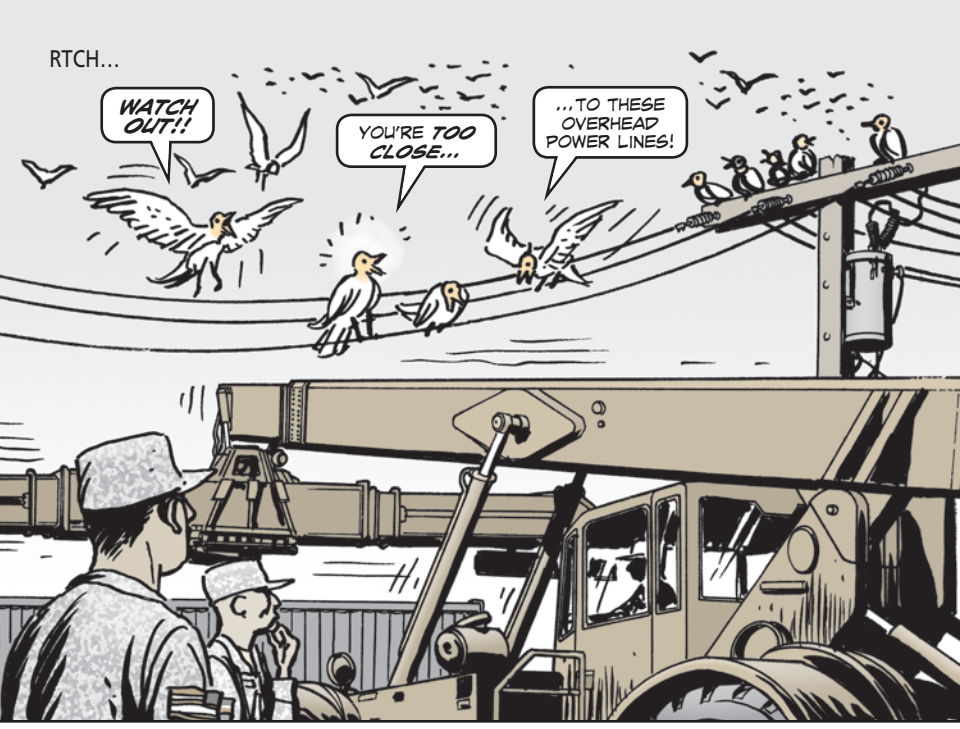


The ACOG (advanced combat optical gunsight) and M150 rifle combat optic sight make sighting a sight easier, but only if you know how to correctly zero them.

Unfortunately, some Soldiers are a bit cloudy on zeroing and don't know where to find the zeroing instructions. The small arms TMs have no info on the subject.

TM 9-1240-416-13&P provides the zeroing answers. Pages 1-9 through 1-16 show you how to correctly mount the sights. Unless the sight is mounted right, it won't maintain its zero. The step-by-step zeroing procedures begin on Page 1-21. Armorers should have their pubs clerks order copies of the TM and then use the TMs to train Soldiers on zeroing.

The TM is also on the ETMs Online site: https://www.logsa.army.mil/etms/online.cfm

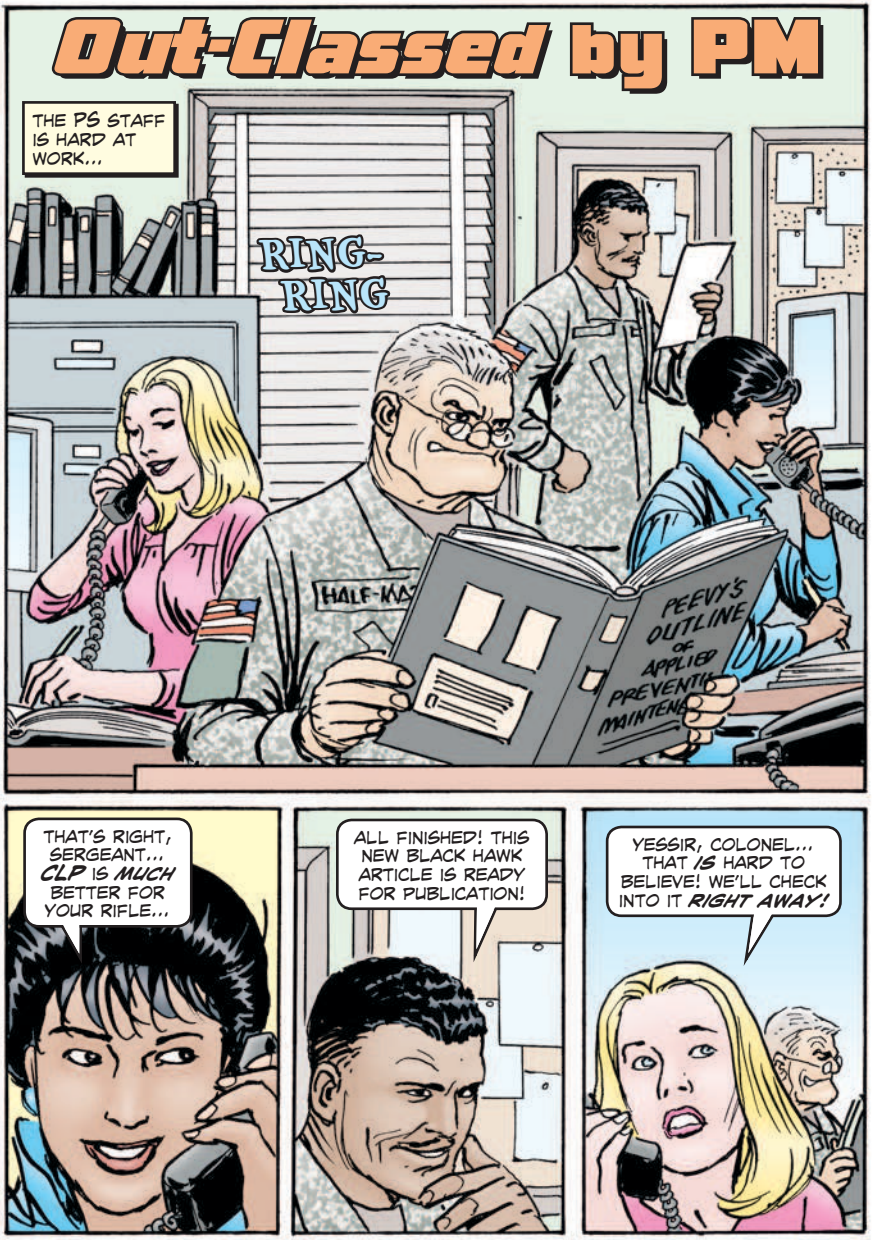


OVERHEAD POWER LINES

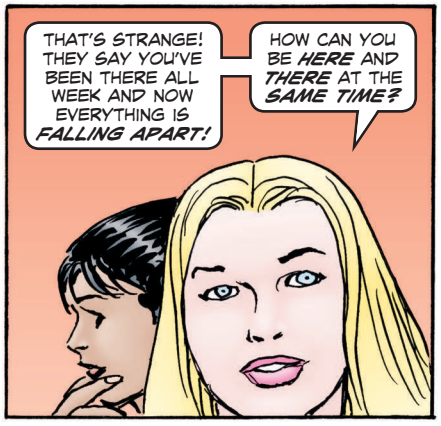
It's sad to say, but a rough terrain container handler (RTCH) operator was killed recently when his vehicle came in contact with an overhead power line.

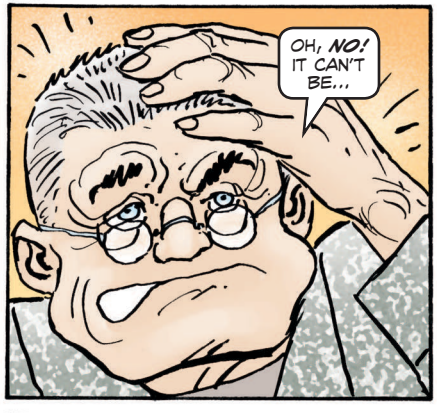
Keep in mind that most overhead power lines are not insulated. They present a real danger. In WP 0005 00-15 of TM 10-3930-675-10, there's a **WARNING** that says, *"Never operate the RTCH or move the load near a power line or overhead wires."*

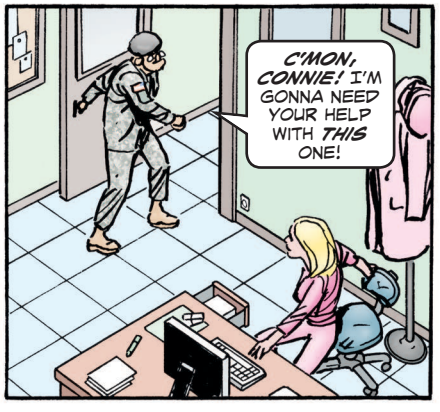
- **Survey.** Are there any power lines in the area where you are working?
- **Recognize.** If there are power lines in the area, be aware of the hazards they might present.
- **Consider.** All power lines should be considered energized and dangerous until you find out differently.
- Play it safe and keep the container handler at least 20 feet away from power lines, and **never** operate the vehicle under them.

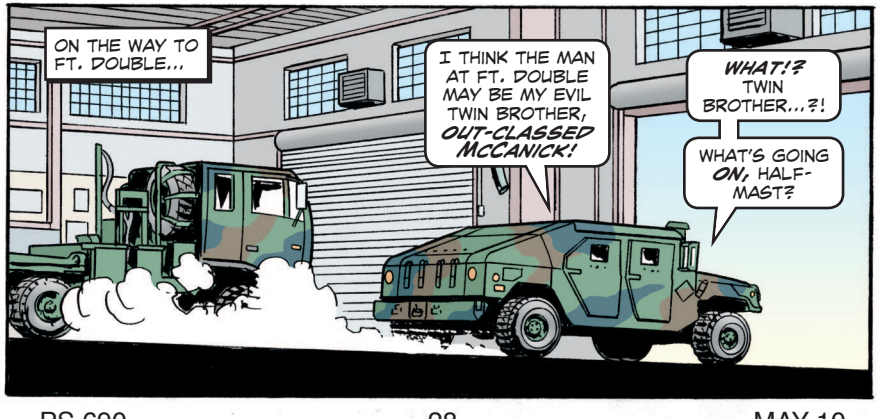

Out-Classed by PM
THE PS STAFF IS HARD AT WORK...
RING-RING
PEEVY'S OUTLINE OF APPLIED
THAT'S RIGHT, SERGEANT... CLP IS MUCH BETTER FOR YOUR RIFLE...
ALL FINISHED! THIS NEW BLACK HAWK ARTICLE IS READY FOR PUBLICATION!
YESSIR, COLONEL... THAT IS HARD TO BELIEVE! WE'LL CHECK INTO IT RIGHT AWAY!

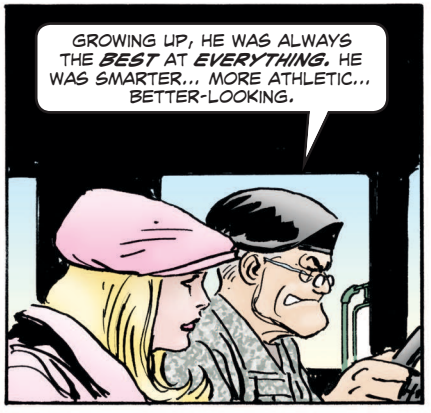

HALF-MAST! WE'VE GOT A DIRE SITUATION AT FT. DOUBLE!
HUH? I JUST GOT BACK FROM THERE TWO WEEKS AGO. EVERYTHING WAS RUNNING SMOOTH AS SILK!
PEEVY'S

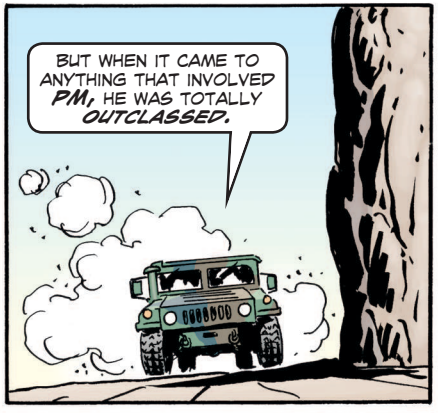

THAT'S STRANGE! THEY SAY YOU'VE BEEN THERE ALL WEEK AND NOW EVERYTHING IS FALLING APART!
HOW CAN YOU BE HERE AND THERE AT THE SAME TIME?

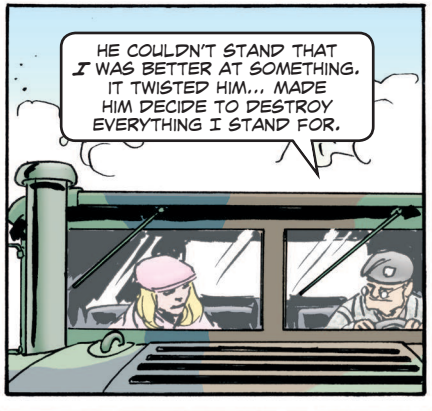

OH, NO! IT CAN'T BE...

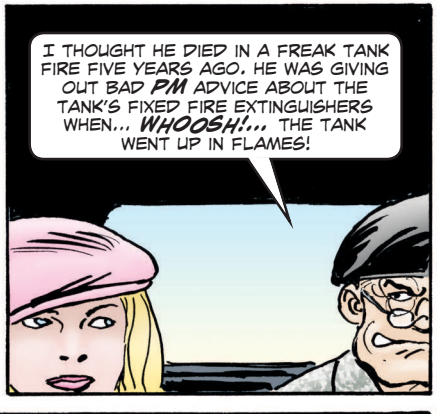

C'MON, CONNIE! I'M GONNA NEED YOUR HELP WITH THIS ONE!

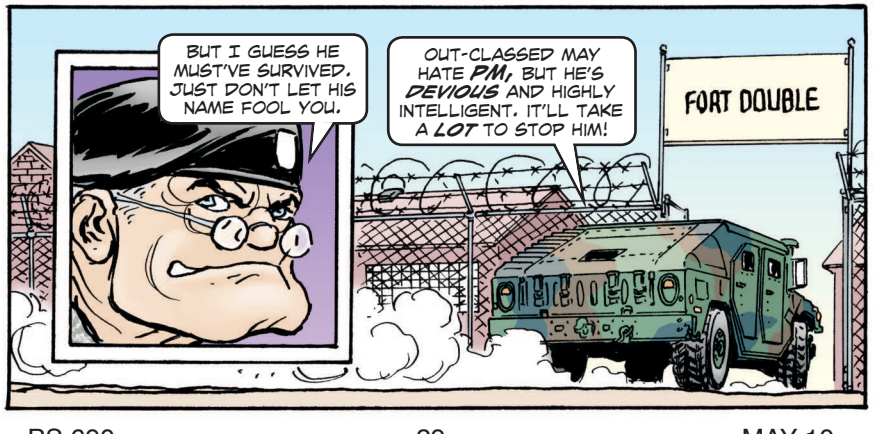

ON THE WAY TO FT. DOUBLE...
I THINK THE MAN AT FT. DOUBLE MAY BE MY EVIL TWIN BROTHER, OUT-CLASSED MCCANICK!
WHAT!? TWIN BROTHER...?!
WHAT'S GOING ON, HALF-MAST?

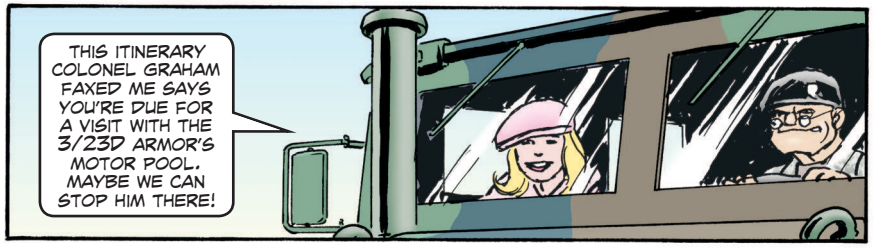

GROWING UP, HE WAS ALWAYS THE BEST AT EVERYTHING. HE WAS SMARTER... MORE ATHLETIC... BETTER-LOOKING.

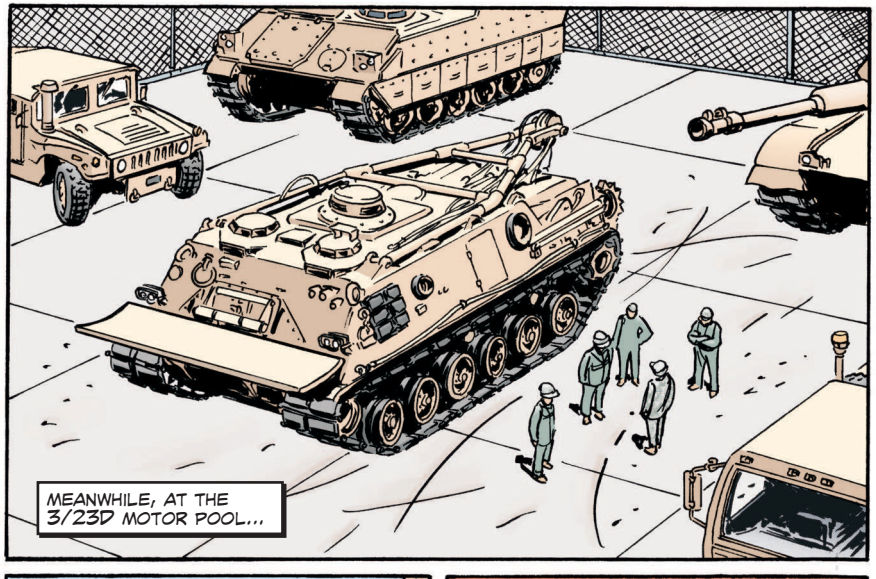

BUT WHEN IT CAME TO ANYTHING THAT INVOLVED PM, HE WAS TOTALLY OUTCLASSED.

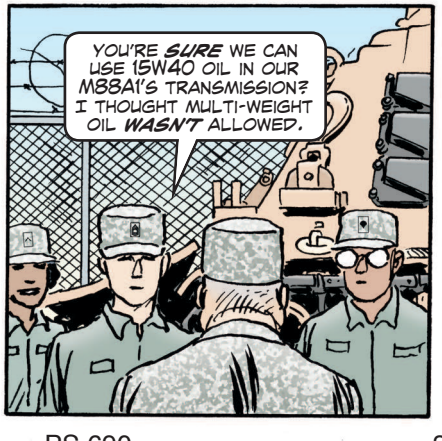

HE COULDN'T STAND THAT I WAS BETTER AT SOMETHING. IT TWISTED HIM... MADE HIM DECIDE TO DESTROY EVERYTHING I STAND FOR.


I THOUGHT HE DIED IN A FREAK TANK FIRE FIVE YEARS AGO. HE WAS GIVING OUT BAD PM ADVICE ABOUT THE TANK'S FIXED FIRE EXTINGUISHERS WHEN... WHOOSH!... THE TANK WENT UP IN FLAMES!

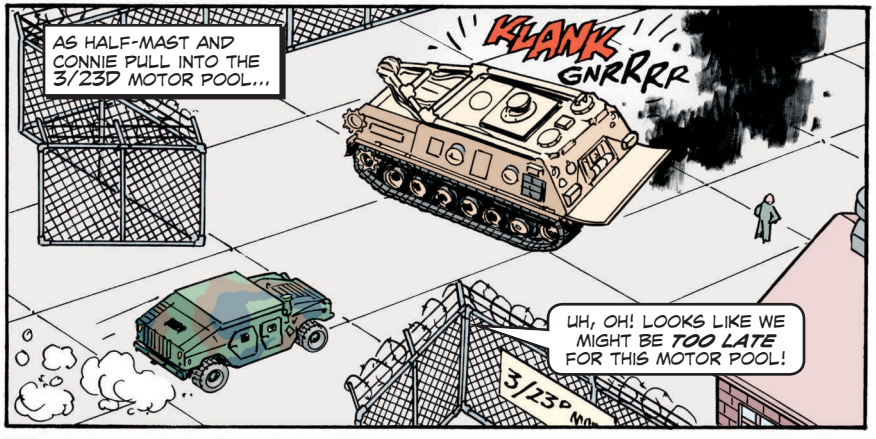

BUT I GUESS HE MUST'VE SURVIVED. JUST DON'T LET HIS NAME FOOL YOU.
OUT-CLASSED MAY HATE PM, BUT HE'S DEVIOUS AND HIGHLY INTELLIGENT. IT'LL TAKE A LOT TO STOP HIM!
FORT DOUBLE

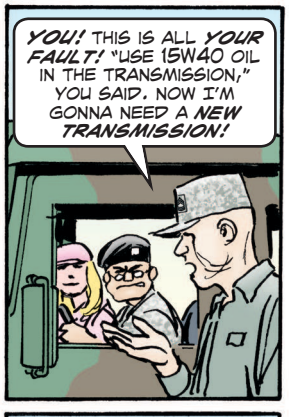

THIS ITINERARY COLONEL GRAHAM FAXED ME SAYS YOU'RE DUE FOR A VISIT WITH THE 3/23D ARMOR'S MOTOR POOL. MAYBE WE CAN STOP HIM THERE!

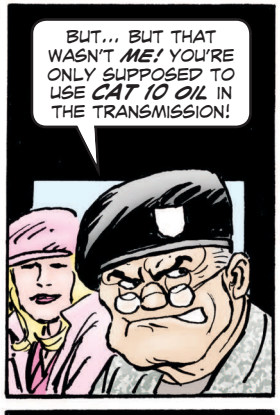

MEANWHILE, AT THE 3/23D MOTOR POOL...

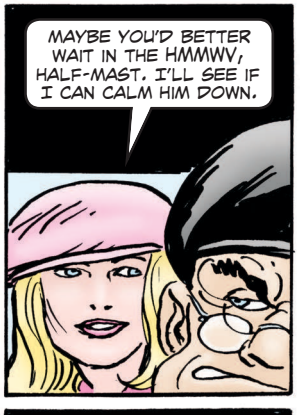

YOU'RE SURE WE CAN USE 15W40 OIL IN OUR M88A1'S TRANSMISSION? I THOUGHT MULTI-WEIGHT OIL WASN'T ALLOWED.


SURE YOU CAN USE IT. IT'S USED IN THE ENGINE, RIGHT? NO SENSE IN KEEPING EXTRA OILS AROUND IF YOU DON'T NEED 'EM!

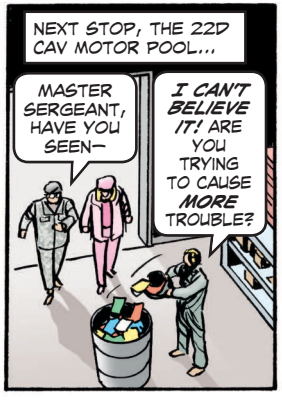

AS HALF-MAST AND CONNIE PULL INTO THE 3/23D MOTOR POOL...
KLANK
GNRRRR
UH, OH! LOOKS LIKE WE MIGHT BE TOO LATE FOR THIS MOTOR POOL!
3/23D


YOU! THIS IS ALL YOUR FAULT! "USE 15W40 OIL IN THE TRANSMISSION," YOU SAID. NOW I'M GONNA NEED A NEW TRANSMISSION!

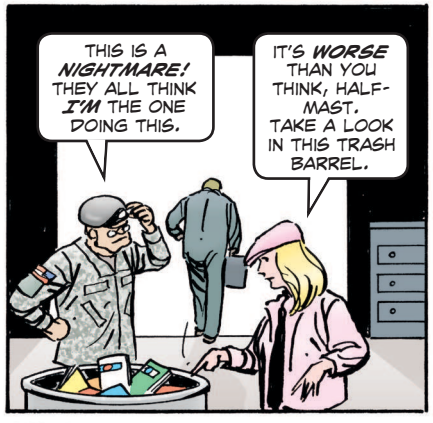

BUT... BUT THAT WASN'T ME! YOU'RE ONLY SUPPOSED TO USE CAT 10 OIL IN THE TRANSMISSION!


MAYBE YOU'D BETTER WAIT IN THE HMMWV, HALF-MAST. I'LL SEE IF I CAN CALM HIM DOWN.

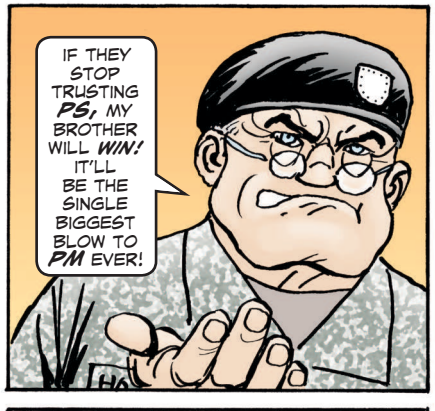

A FEW MINUTES LATER...
IT'S GOTTA BE MY BROTHER! THERE'S NO OTHER EXPLANATION!
LET'S JUST HOPE WE CAN STOP HIM.

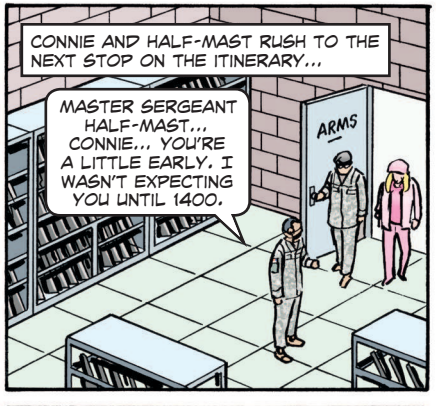

NEXT STOP, THE 22D CAV MOTOR POOL...
MASTER SERGEANT, HAVE YOU SEEN—
I CAN'T BELIEVE IT! ARE YOU TRYING TO CAUSE MORE TROUBLE?

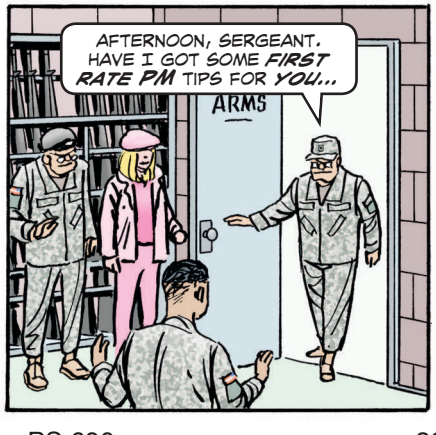

YOU SET MY MAINTENANCE EFFORTS BACK WEEKS WITH ALL YOUR ADVICE. AND THE COST! I DON'T KNOW HOW WE'LL PAY FOR THE DAMAGE.


THIS IS A NIGHTMARE! THEY ALL THINK I'M THE ONE DOING THIS.
IT'S WORSE THAN YOU THINK, HALF-MAST. TAKE A LOOK IN THIS TRASH BARREL.

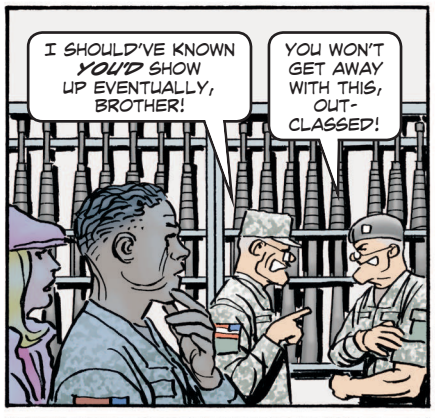

NOW THEY'RE THROWING OUT THEIR COPIES OF PS!

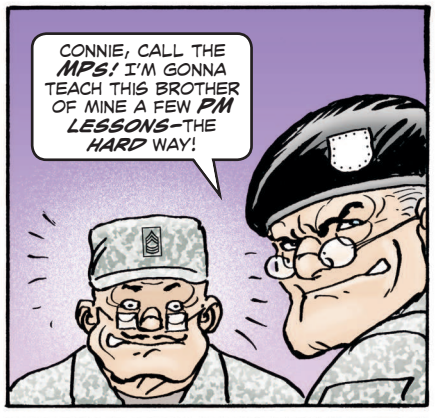

IF THEY STOP TRUSTING PS, MY BROTHER WILL WIN! IT'LL BE THE SINGLE BIGGEST BLOW TO PM EVER!

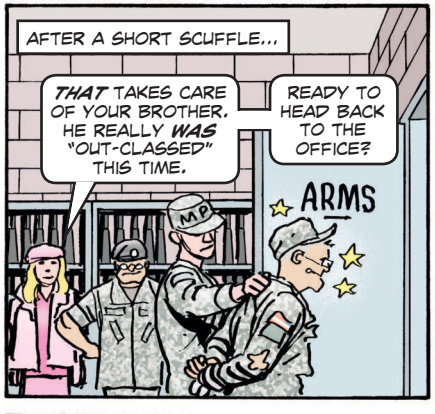

CONNIE AND HALF-MAST RUSH TO THE NEXT STOP ON THE ITINERARY...
MASTER SERGEANT HALF-MAST... CONNIE... YOU'RE A LITTLE EARLY. I WASN'T EXPECTING YOU UNTIL 1400.
ARMS

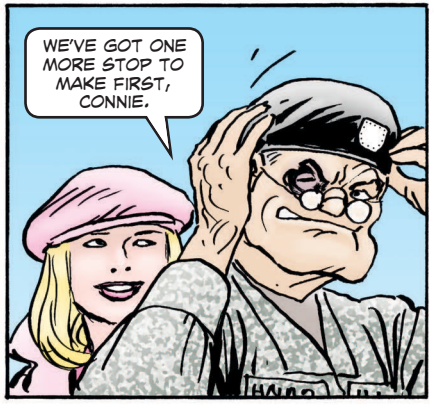

AFTERNOON, SERGEANT. HAVE I GOT SOME FIRST RATE PM TIPS FOR YOU...
ARMS

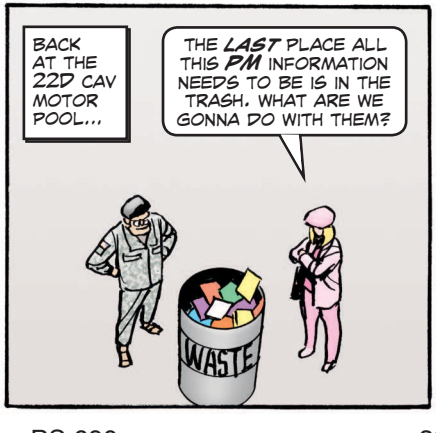

WHAT THE-? HALF-MAST? WHO...?

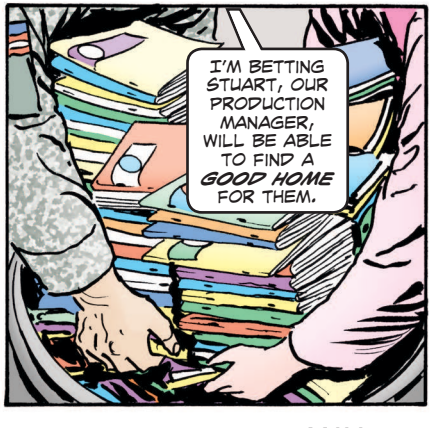

I SHOULD'VE KNOWN YOU'D SHOW UP EVENTUALLY, BROTHER!
YOU WON'T GET AWAY WITH THIS, OUT-CLASSED!

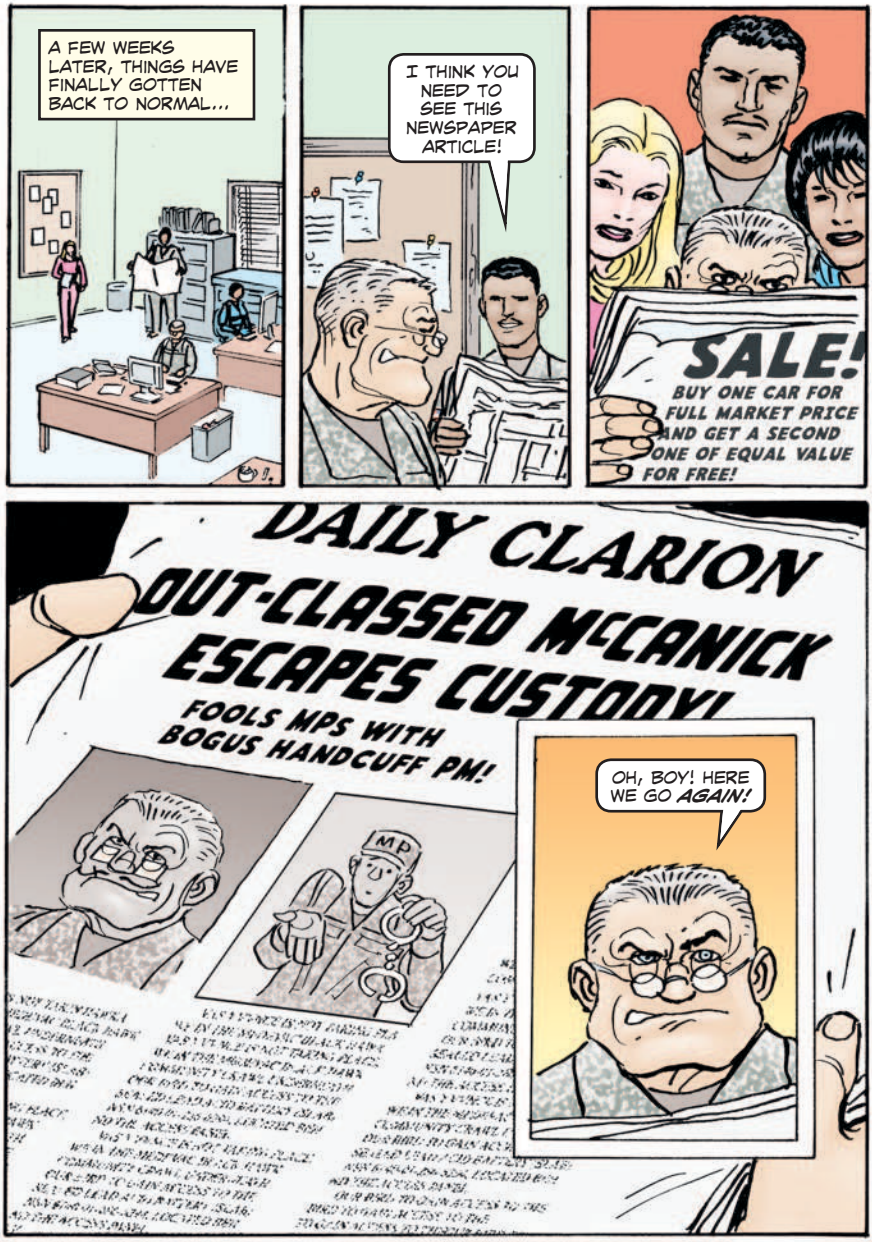

CONNIE, CALL THE MPS! I'M GONNA TEACH THIS BROTHER OF MINE A FEW PM LESSONS-THE HARD WAY!


AFTER A SHORT SCUFFLE...
THAT TAKES CARE OF YOUR BROTHER. HE REALLY WAS "OUT-CLASSED" THIS TIME.
READY TO HEAD BACK TO THE OFFICE?
MP
ARMS


WE'VE GOT ONE MORE STOP TO MAKE FIRST, CONNIE.


BACK AT THE 22D CAV MOTOR POOL...
THE LAST PLACE ALL THIS PM INFORMATION NEEDS TO BE IS IN THE TRASH. WHAT ARE WE GONNA DO WITH THEM?
WASTE


I'M BETTING STUART, OUR PRODUCTION MANAGER, WILL BE ABLE TO FIND A GOOD HOME FOR THEM.

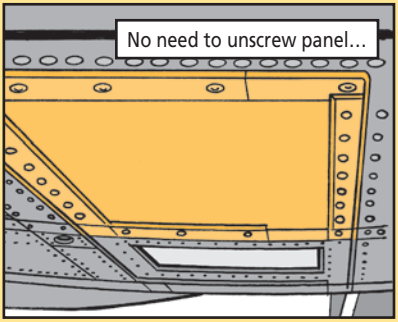

A FEW WEEKS LATER, THINGS HAVE FINALLY GOTTEN BACK TO NORMAL...
I THINK YOU NEED TO SEE THIS NEWSPAPER ARTICLE!
SALE!
BUY ONE CAR FOR FULL MARKET PRICE AND GET A SECOND ONE OF EQUAL VALUE FOR FREE!
DAILY CLARION
OUT-CLASSED McCANICK ESCAPES CUSTODY!
FOOLS MPS WITH BOGUS HANDCUFF PM!
MP
OH, BOY! HERE WE GO AGAIN!

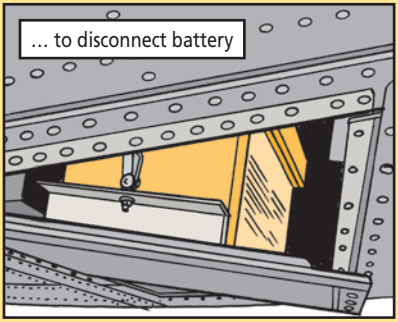
THE PAIN OF BATTERY DRAIN

Dear Sergeant Blade,

As you know, when maintenance is not taking place, we in the MEDEVAC Black Hawk community crawl underneath our bird to gain access to the sealed lead acid battery (SLAB), NSN 6140-01-286-6294, located behind the access panel.

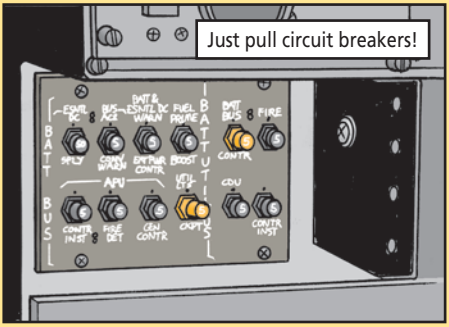
When the bird is not in use, it's a headache to unscrew umpteen screws from the bottom access panel just to disconnect the battery connector to prevent a drained battery. It's even worse when we have to put the screws back in and then go back the next day to unscrew them again to reconnect the battery connector. That's a lot of time spent underneath the bird.





Here's our fix. Instead of going underneath the bird, we head to the cockpit center console and pull the BATT BUS and the UTIL LTS circuit breakers. This will prevent the SLAB battery from being drained without having to fool with the SLAB battery. We no longer need to spend all that extra time underneath the bird.

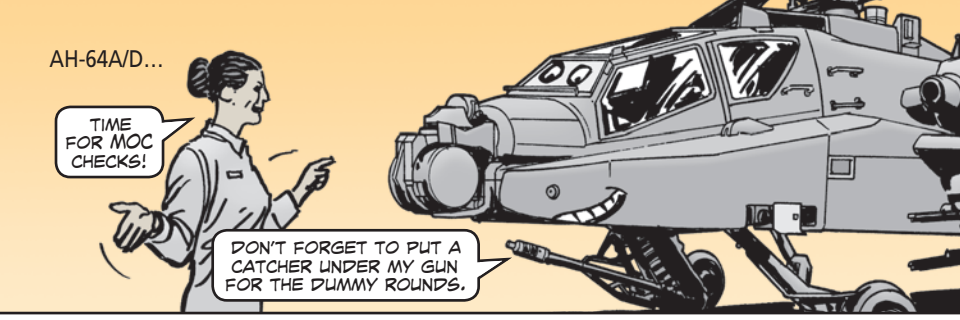
SGT John Jones
MAARNG



Dear Sergeant Jones,

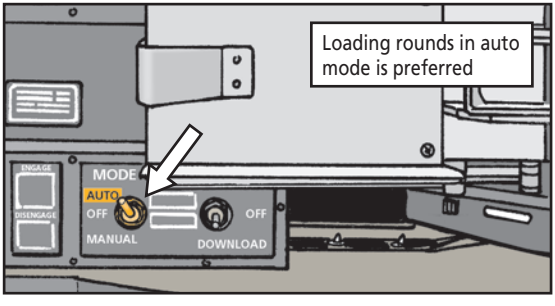
Looks like you've drained the battery drain problem. Before doing this procedure, make sure you get your commander's approval. Then include it in your unit's standard operating procedures (SOP).

"Rotor" Blade



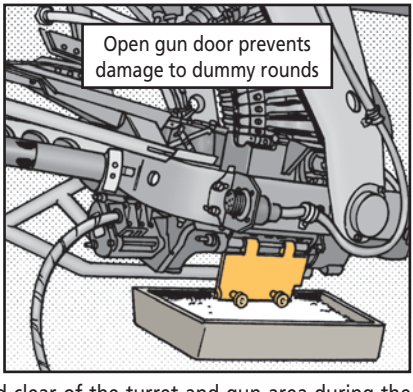
Manual Loading Equals Manual Labor

Mechanics, when loading ammo into the AH-64 sideloader, it's always a good idea to load in auto mode. Loading in manual mode overrides the built-in safety functions of the sideloader/magazine controller (SMC) and can result in a lot of damage if something is forgotten (like leaving the function switch or the gate assembly in the upload position).

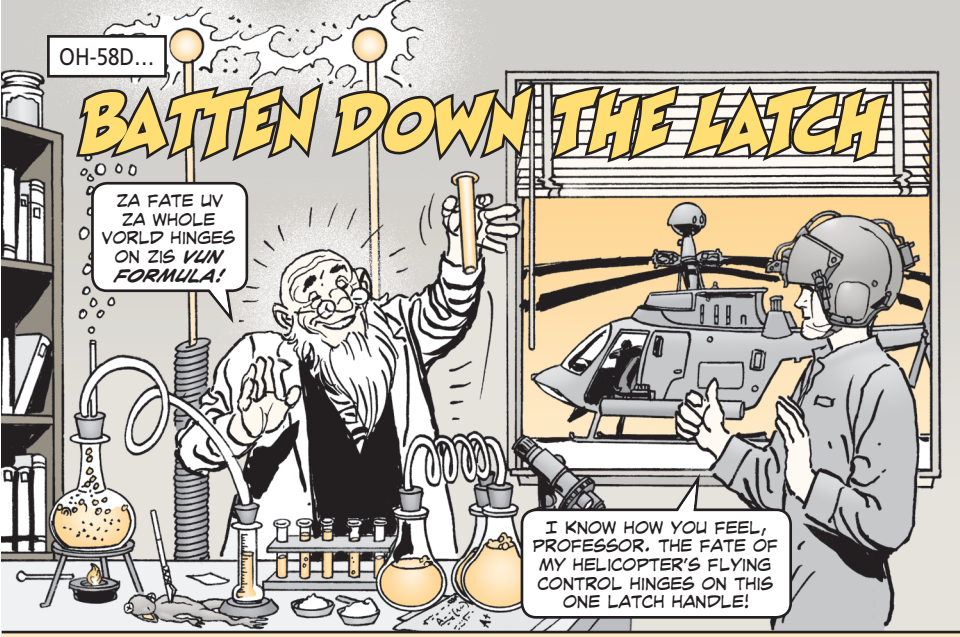


If auto loading fails and you have to load in manual mode, be sure to follow the TM instructions exactly as written. Also, after the mission is complete, be sure to report the problem so the sideloader can be repaired and auto loading is operational in the future.

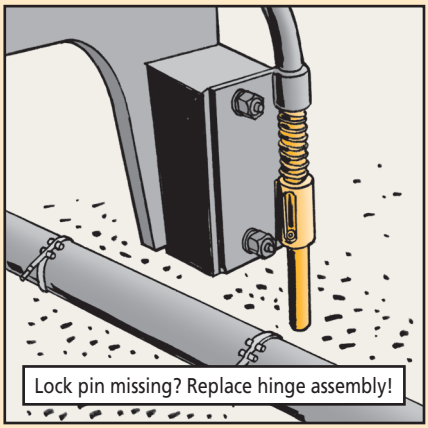
When performing the gun-system maintenance operational check (MOC), dummy rounds are cycled through the system and down to the gun. Instead of cycling the dummy rounds through the gun, leave the gun door open and let them fall out into a container with a foam cushion in it. This will keep your dummy rounds in good shape. Don't let them hit the hard ground or they will get dented and damaged. Since these rounds can be hard to come by, it's a good idea to keep them in good shape so they can be used for a long time.



Also, as a safety precaution, always stand clear of the turret and gun area during the MOC. The turret and gun can rotate quickly, and if you are standing too close the barrel flash suppressor will take you out at the knees.



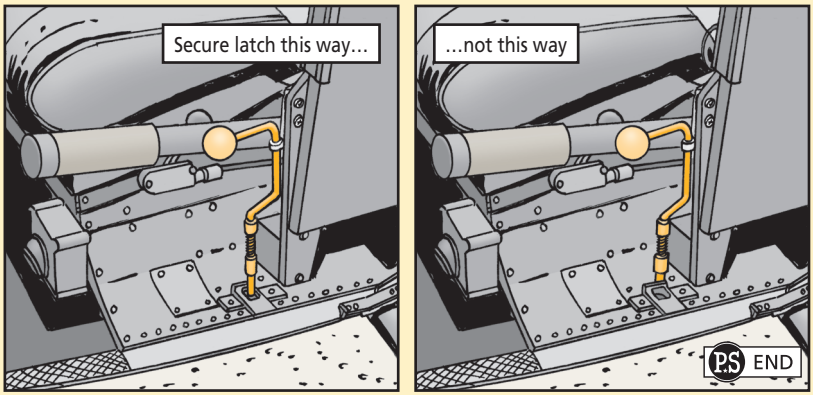
Before your next flight, ensure the latch handle secures correctly and does not spin when the armor side panel door is shut. If you have a missing lock pin, install a new hinge assembly, NSN 5342-00-134-3355, so the latch handle knob stays out of the way of the collective.



When flying, the last thing you want is the latch handle knob getting in the way of the collective and blocking its movement while you're in control of the bird.

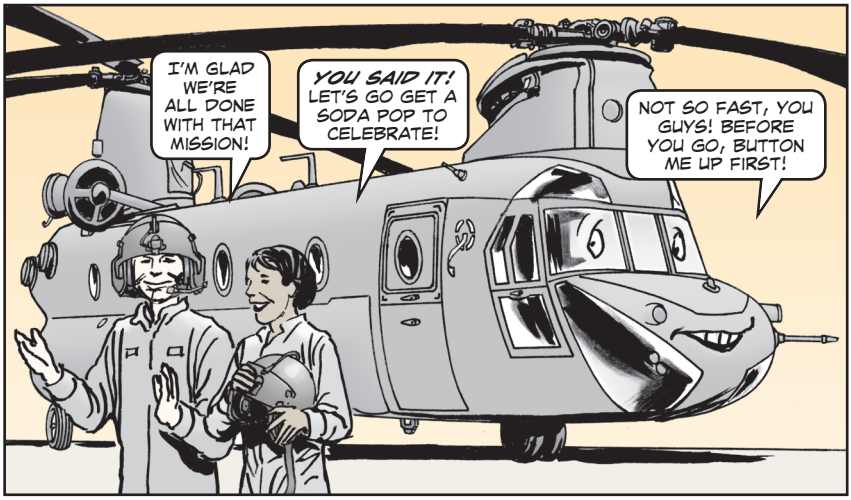
When closing the armor panel, make sure the latch rests **in** the stop and not **behind** the stop. The behind the stop position puts the latch handle knob flush against the collective and that's a no no.

Keep the latch out of the way of the collective at all times, and do not shove the armor latch past the armor stop.



CH-47D/F...

Close Up Shop



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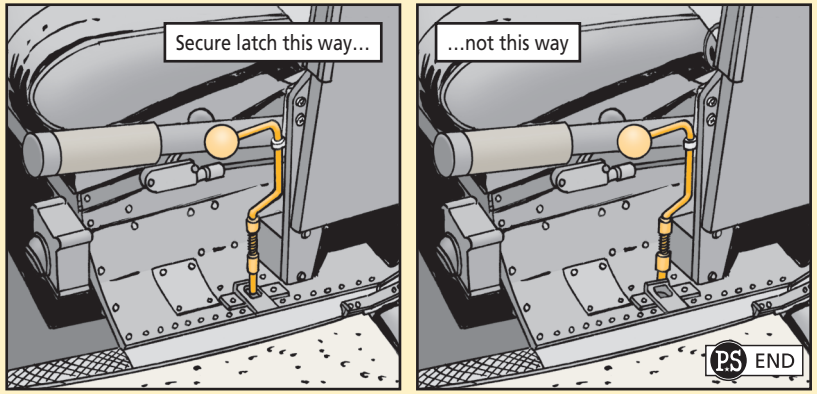
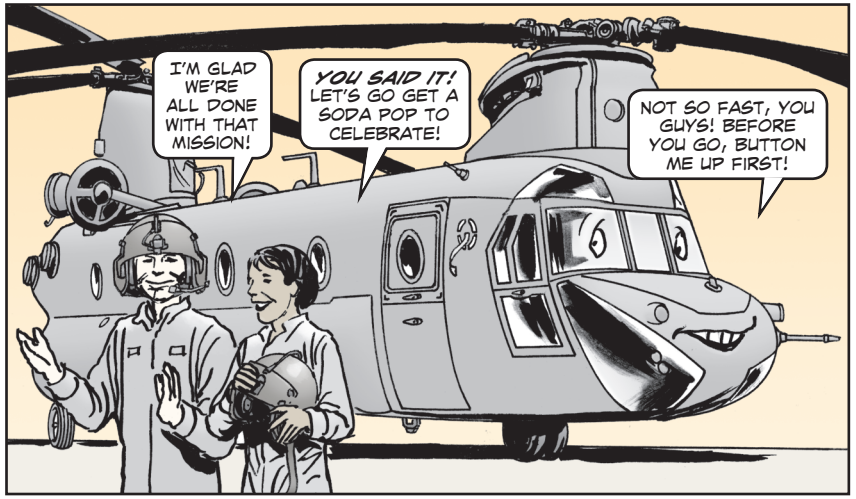


CH-47D/F...

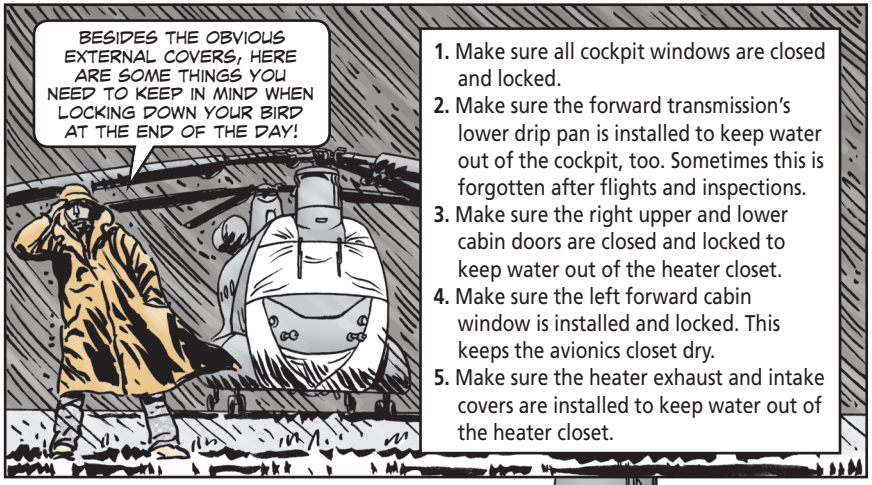
Close Up Shop

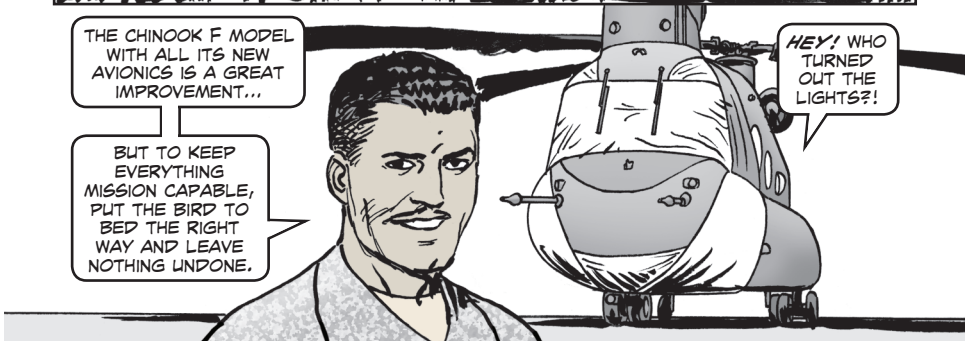


When the mission is over, don't go home until your bird is buttoned up and its required covers are in place.

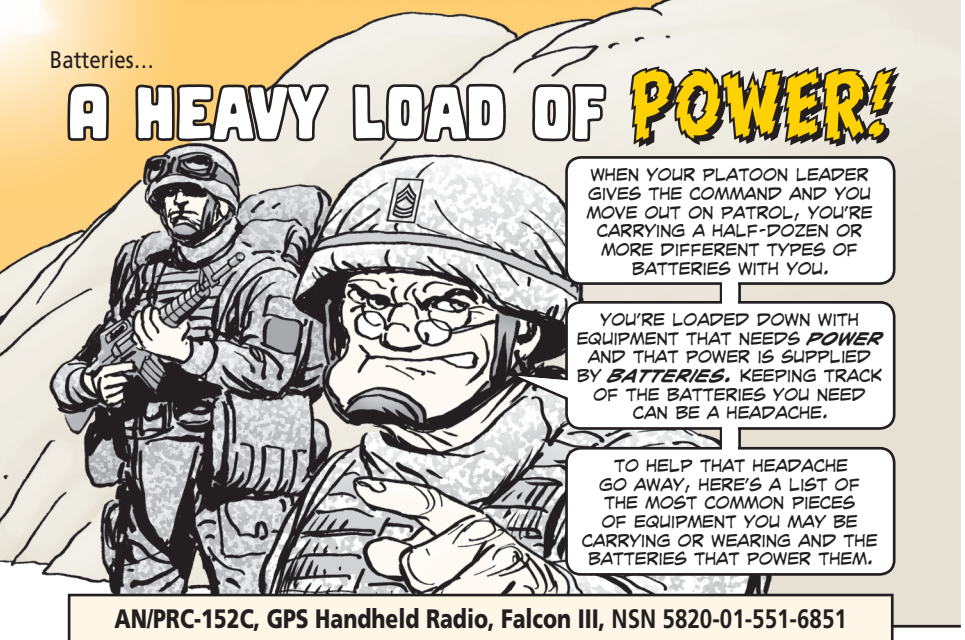
In areas where pop-up rain showers can happen at the drop of a hat, an uncovered bird is like a bucket waiting to collect rain.

With all the new electronics and avionics in the Chinook, (especially the new F model), flight and ground crews need to take the necessary steps after post flight inspection to keep rain water out.





A HEAVY LOAD OF POWER!



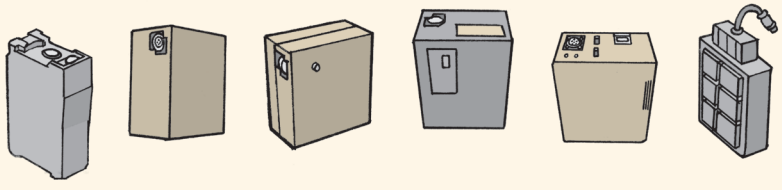
AN/PRC-152C, GPS Handheld Radio, Falcon III, NSN 5820-01-551-6851

The Falcon III gives you eight battery choices in addition to the manufacturer supplied battery, NSN 6140-01-548-7566, that comes with the radio. Seven of those choices are:

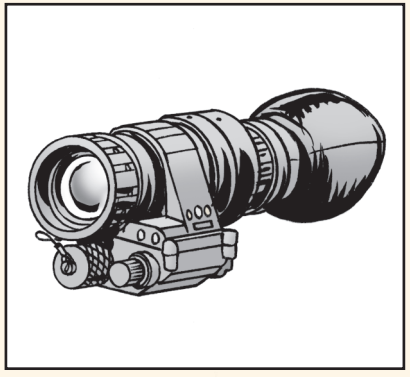
BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316;
BA-8180/U, NSN 6135-01-500-0572.

All of these choices require only one battery. The eighth choice, BA-3058/U, NSN 6135-00-985-7845, requires 16 AA batteries and battery tray, NSN 6160-01-571-7464.

The BA-5590B/U and BA-5590A/U will last about 46 hours in your Falcon III.
You will need the J-6686/U adapter, NSN 5940-01-517-3990, to use the BA-8180/U.



AN/PVS-14, Monocular Night Vision Device, NSN 5855-01-432-0524
AN/PEQ-2A, Infrared Illuminator, NSN 585-01-447-8992
AN/PAQ-4B, Infrared Aiming Light, NSN 5855-01-361-1362
AN/PVS-7D, Night Vision Goggle, NSN 5855-01-422-5413
AN/PVS-5C, Night Vision Goggle, NSN 5855-01-228-0936
AN/PAS-13D(V)2, -(V)3, Thermal Weapon Sight, Medium, NSN 5855-01-524-4313 or Heavy, NSN 5855-01-524-4314
AN/PSN-13, Defense Advanced GPS Receiver (DAGR),NSN 5825-01-516-8038



You have a choice of three batteries to power the equipment in this list. You can use the BA-3058/U, NSN 6135-00-985-7845, a non-rechargeable alkaline AA cell.

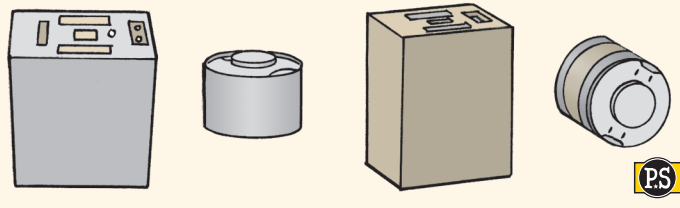
Or the L91, NSN 6135-01-333-6101, a non-rechargeable lithium iron disulfide battery. The L91 will give you a few more hours of runtime and can take high heat better, but will cost you more.

Or the NH15, NSN 6140-01-467-3225, a rechargeable nickel metal hydride. To keep this battery charged, you'll need charger, NSN 6140-01-413-3929.

Whichever battery you choose, you'll need six to power your thermal weapon sight, four to run your DAGR and two to run the rest of the equipment listed.

The PVS-7D and PVS-5C have two other choices, the BA-5567A/U, NSN 6135-01-447-5082, a 3V non-rechargeable, lithium sulfur dioxide and the BA-5367/U, NSN 6135-01-507-1135, a 3V non-rechargeable, lithium manganese dioxide battery. The advantages to these two batteries over the first three is you only need one to do the job and they can withstand higher temperatures. The disadvantage is their runtime is half of what the other three offer.

If you have a non "D" model thermal weapons sight, use one BA-5347/U, non-rechargeable lithium manganese dioxide, battery, NSN 6135-01-455-7946 or one, BB-2847A/U, NSN 6140-01-493-8092, 8V rechargeable lithium ion battery. To recharge the BB-2847A/U, you'll need adapter, J-6354, NSN 5940-01-427-9278, and the portable battery charger, NSN 6130-01-495-2839. Or you can use the vehicle-mounted charger, NSN 6130-01-527-2726, which does not require an adapter.



PS MORE

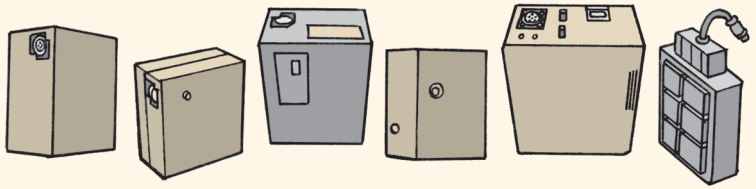
AN/PRC-117F, Multiband Radio, Harris, NSN 5820-01-462-2484

The Harris radio gives you seven battery choices:

BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BA-8180/U, NSN 6135-01-500-0572;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316.

You will need the J-6687/U adapter, NSN 5940-01-516-9787, to use the BA-8180/U.

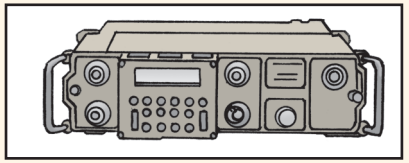
BA-5590B/U without a state-of-charge indicator and the BA-5590A/U with a state-of-charge indicator will last about 18 hours in your radio.



AN/PRC-150(C), HF Radio Manpack, NSN 5820-01-492-3628

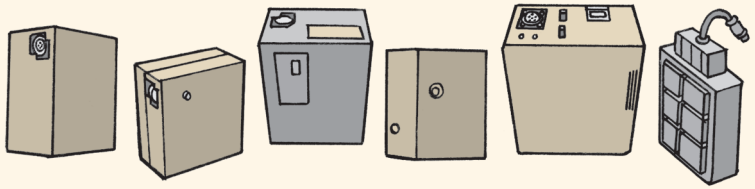
The manpack radio gives you seven battery choices and none of them require an adapter. The choices are:

BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BA-8180/U, NSN 6135-01-500-0572;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316.



You'll need two of each of these except the BA-8180/U. You'll need only one of those.

You will need the J-6687/U adapter, NSN 5940-01-516-9787, to use the BA-8180/U.

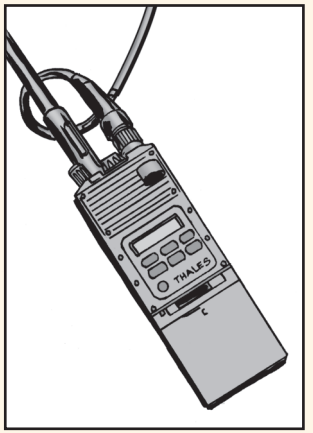


AN/PRC-148(V)1(C) through (V)5(C), Multiband Radio, MBITR

The MBITR gives you seven battery choices in addition to the Thales supplied battery, NSN 6140-01-487-1153, that comes with the radio. All seven of those choices:

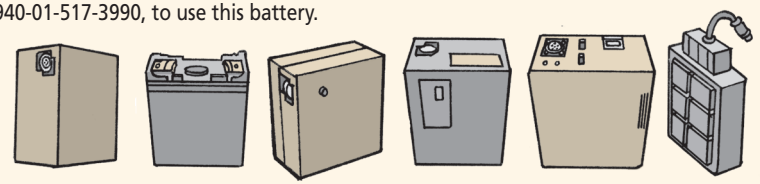
BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BA-8180/U, NSN 6135-01-500-0572;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316,

require an adapter, J-6686/U, NSN 5940-01-517-3990, to use. All of these choices require only one battery. You'll need 12 batteries of the eighth choice, the BA-5123/U, NSN 6135-01-351-1131, and battery tray holder, NSN 6160-01-487-1151.



BA-5590B/U is a non-rechargeable lithium sulfur dioxide battery without a state-of-charge indicator. BA-5590A/U is a non-rechargeable lithium sulfur dioxide battery with a state-of-charge indicator. These batteries will last about 46 hours in your radio which is almost 4-times longer than the manufacturer's battery. The BA-5390A/U is a non-rechargeable 12/24V lithium manganese dioxide battery with a state-of-charge indicator. The BA-5390A/U is a non-rechargeable 12/24V lithium manganese dioxide battery without a state-of-charge indicator. The BB-390B/U is a rechargeable 12/24V nickel metal hydride battery.

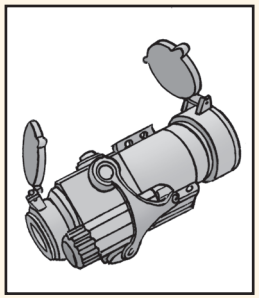
The BA-8180/U is a 12/24V zinc air battery. You will need the J-6686/U adapter, NSN 5940-01-517-3990, to use this battery.

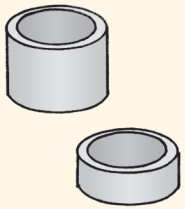


M68, Reflex Sight, NSN 1240-01-411-1265

The M16 and M4's reflex sight uses one non-rechargeable lithium manganese dioxide battery, NSN 6135-01-398-5922. When you order this battery, you'll receive a battery with one of these part numbers: CR1/3N, DL1/3N or 2L76. One of these will make your sight work.

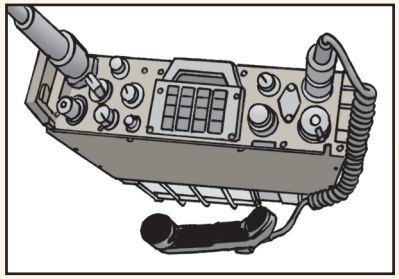
NSN 6135-01-174-8057 brings another battery you can use, the A-76. You'll need two of these.





PS MORE

AN/PRC-119 through 119F, SINCGARS Radio Sets



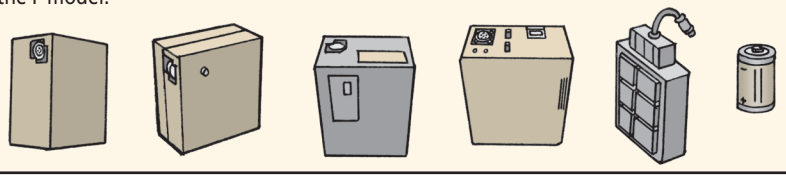
The SINCGARS radio gives you seven battery choices and none of them require an adapter. The choices are:

BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BA-8180/U, NSN 6135-01-500-0572;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316.

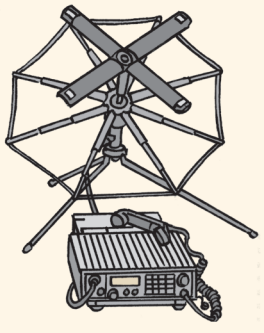
Your radio needs only one of these batteries.

You will need the J-6634/U adapter, NSN 5940-01-504-5597, to use the BA-8180/U on the A-E models.

You will need the J-6633/U adapter, NSN 5940-01-504-3218, to use the BA-8180/U on the F model.



AN/PSC-5, Manpack UHF Terminal, NSN 5820-01-366-4120

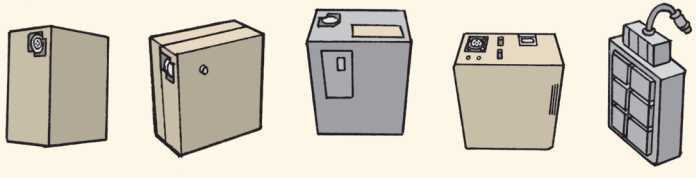


The manpack terminal gives you seven battery choices and none of them require an adapter. The choices are:

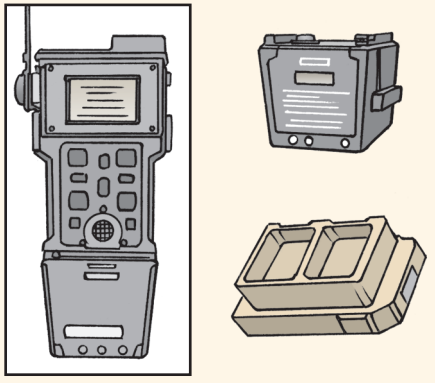
BA-5590B/U, NSN 6135-01-438-9450;
BA-5590A/U, NSN 6135-01-523-3037;
BA-5390/U, NSN 6135-01-501-0833;
BA-5390A/U, NSN 6135-01-517-6060;
BA-8180/U, NSN 6135-01-500-0572;
BB-390B/U, NSN 6140-01-490-4317;
BB-2590/U, NSN 6140-01-490-4316.

All of these require two batteries except the BA-8180/U needs only one. You will need the J-6687/U adapter, NSN 5940-01-516-9787, to use the BA-8180/U.

The BA-5590 should last about 17 hours in your PSC-5.



AN/PRQ-7, Radio Set, CSEL, NSN 5820-01-499-4473



The CSEL uses one BA-5301A/U, non-rechargeable lithium manganese dioxide battery, NSN 6135-01-568-3234; or one, rechargeable lithium ion battery, BB-2001A/U, NSN 6140-01-534-3856. To recharge this battery, you'll need adapter, NSN 5940-01-544-3476 and charger, NSN 6130-01-495-2839.

Phoenix Light, Infrared Transmitter, NSN 5855-01-396-8734

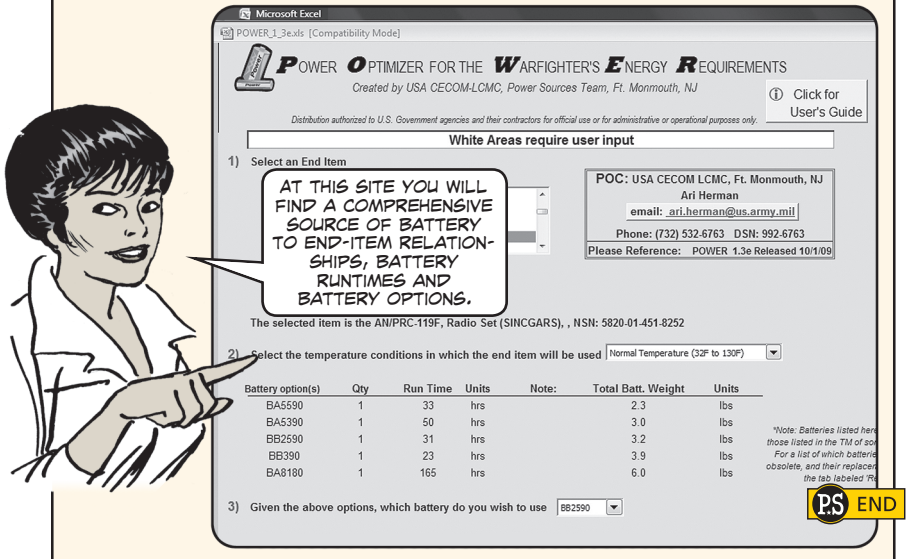
The Phoenix uses one non-rechargeable, 9V alkaline, BA-3090/U, NSN 6135-00-900-2139.

More Battery Info

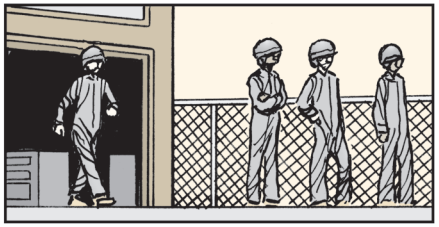
Don't use old batteries with expired use-by dates. Batteries don't improve with age. Buy what you need when you need them. Then, use them or lose them.

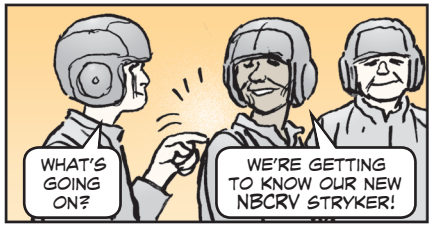
Finally, use the internet for POWER–**P**ower **O**ptimizer for the **W**arfighter's **E**nergy **R**equirements. Log into AKO and enter this URL in the address bar:

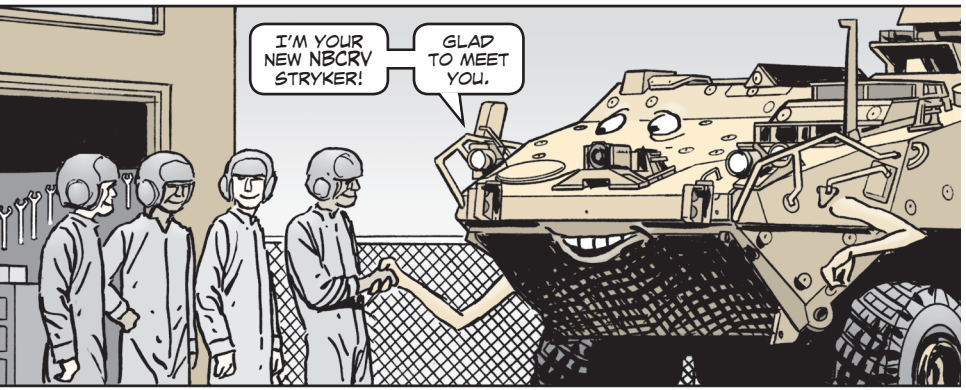
https://www.us.army.mil/suite/doc/5859304

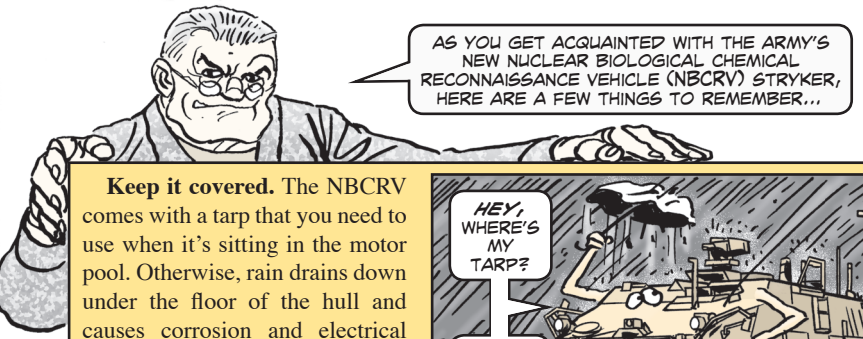


Help for Your New NBCRV Stryker



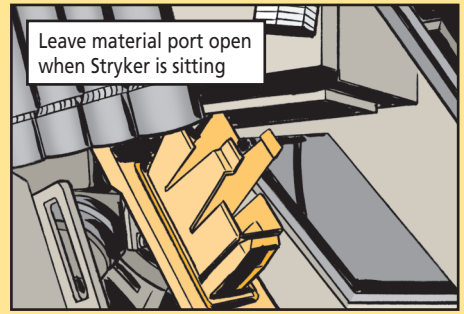




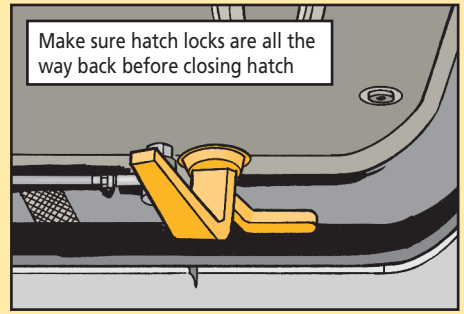


Keep it covered. The NBCRV comes with a tarp that you need to use when it's sitting in the motor pool. Otherwise, rain drains down under the floor of the hull and causes corrosion and electrical problems. Any time your NBCRV goes through rain, open all 13 drain plugs as soon as possible to drain out any water.

It's also a good idea to open the material port when the NBCRV is going to sit for days. The fresh air keeps mold from forming inside the vehicle. One NBCRV crew opened up their vehicle after it had sat unused and shut up to find the mold so thick inside that they could write their names on the walls. What a stinking mess to clean!

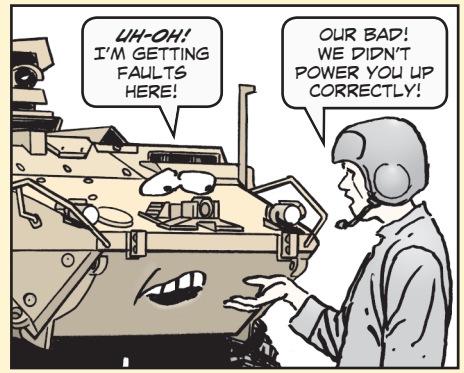


Save the seals. If the door or hatch seals are damaged, the NBCRV has trouble creating overpressure and is NMC until the seal is replaced. Keep your feet off the seals when you climb in and out of the vehicle. Make sure the recessed pins in the hatch locks are all the way back before you pull the hatch shut. Otherwise, a pin will tear the seal.



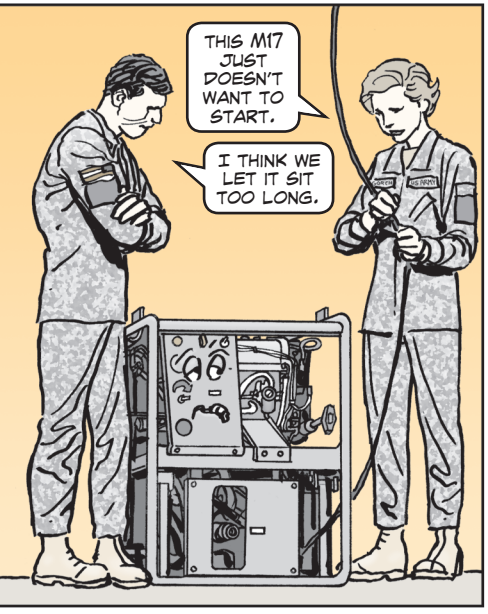
Don't skip steps when you power up. If you don't power up in the proper sequence, you will get communication errors.

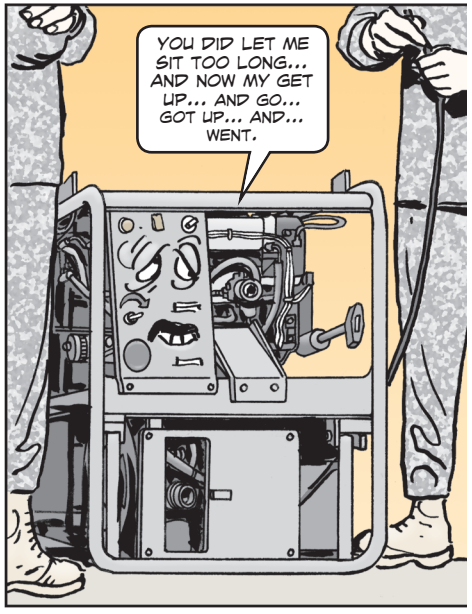
Don't forget to turn on the power inverter, too. It's behind the JPBDS next to the power outlets. If the power inverter is left off, you'll have no warning that the batteries are almost exhausted while operating on battery power. Your Stryker could end up with dead batteries.



Drill holes for M100 decon bracket. The NBCRV Stryker has a place for the M11 decon bracket, which is no longer used. Use the M100 bracket to mark where you need to drill new holes in the M11's spot for the M100. Use spacers with the bracket to keep the bracket from being flush with the engine access panel. Otherwise, the bracket interferes with the knobs on the panel.

Stop *Start-up* Problems

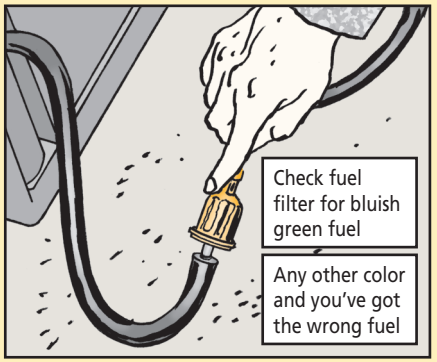




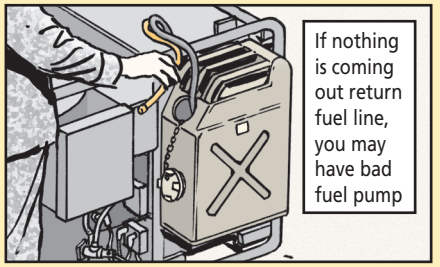
Dear Editor,

Getting the M17 started is often the hardest part of deconning, especially if it has sat unused for a long time. Here are a few suggestions to stop start-up problems:

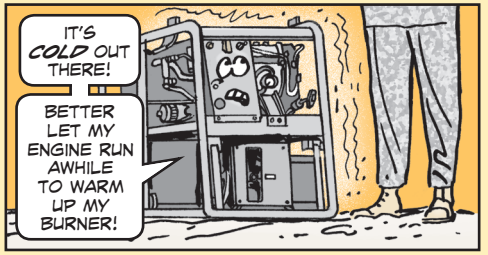
Using the wrong fuel in the M17's engine is one of the biggest problems. The ***burner*** can run on MOGAS, diesel fuel or JP8, but the ***engine*** runs only on MOGAS mixed with one pint of oil per five gallons of MOGAS. So a good check before you try to start your M17 is to look at its fuel filter. If you've got the correct fuel going to the engine, the fuel in the filter will be a bluish green. If it's not, you've got either the wrong fuel or the wrong fuel-oil mixture.



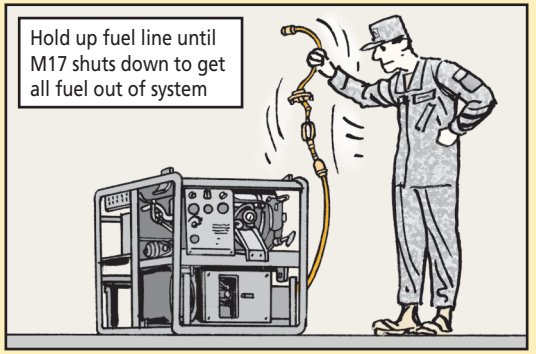
If the fuel is OK but the M17's burner engine won't start, it could be that the fuel pump has locked up. That sometimes happens if the M17 has not been run for weeks. An easy way to check the fuel pump is to pull out the burner return fuel line while you're trying to start the M17. If nothing comes out, you've probably got a bad fuel pump.



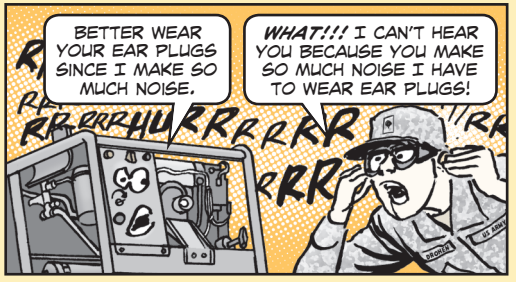
The engine will usually be easier to start on cold days than the heater because MOGAS ignites easier than JP8 or diesel fuel. It's a good idea on cold days to first start the engine and let it run for 5-10 minutes. The engine exhaust warms up the burner and helps its fuel ignite.



If you make sure to get all the fuel out of the fuel system at shutdown, you will have an easier start next time. Otherwise, fuel that stays in the fuel system thickens and clogs the carburetor. The best way to completely empty the M17 at shutdown is to pull out the fuel hose and hold it up until the M17 sputters off.



One safety note: Wear hearing and eye protection while operating the M17. It's very loud and can damage your hearing if you're not wearing ear plugs. And you don't want whatever you're spraying to get in your eyes.



SGT Damaris Vanzundt
21st Chemical Co
Ft Bragg, NC

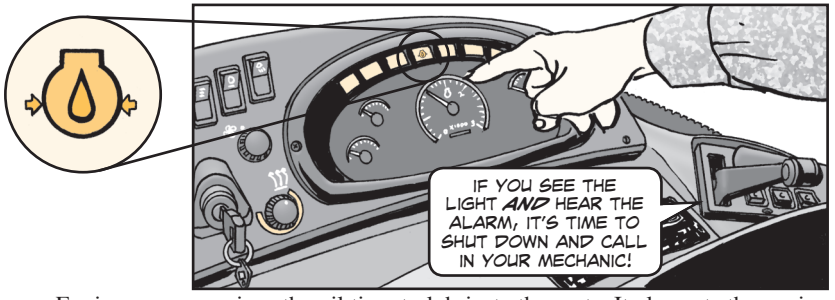
Editor's note: *Get started on these start-up suggestions, deconners. Thanks, Sergeant.*

Backhoe PM Pointers

Start Up, Cool Down

Your BHL needs to warm up and cool down—just like a runner before and after a race. Immediately after start-up, make sure you have engine oil pressure. Run the engine at idle for about 2 minutes to warm it up.

Eyeball the low engine oil pressure warning lamp during warm up. If the light goes on and stays on, that means there's **no** or low engine oil pressure. You'll also hear an alarm that tells you something's wrong. Shut down the engine if you hear the alarm with the light on. Call in your mechanic.



Engine warm-up gives the oil time to lubricate the parts. It also gets the engine warm enough to boil off condensation caused by normal engine breathing. That way, you don't have to worry about condensation mixing with the oil and forming a sludge that'll clog the engine.

After running the backhoe loader at the worksite, let the engine cool down before shutting it off. Idle the engine for at least 2 minutes. The engine needs to cool down, or the heat can crack the block, warp a head or valves, or bake the oil until it's not slick enough to lube the bearings.

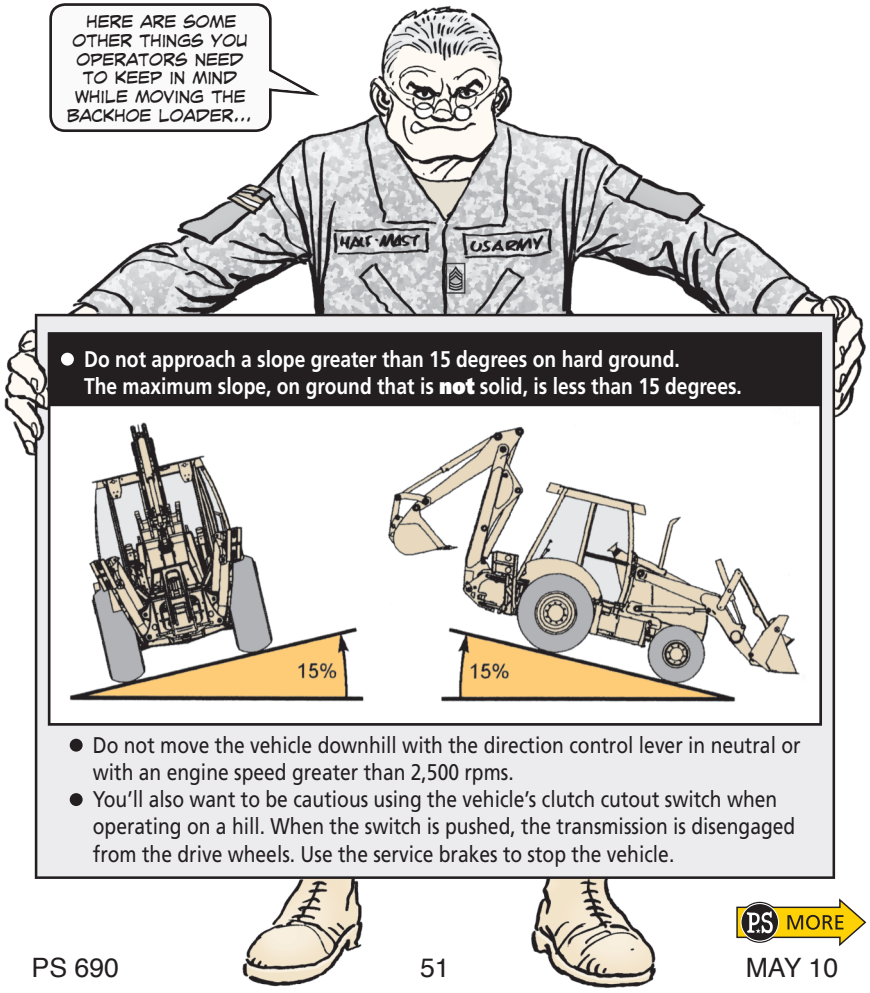
Traversing Slopes

How you move your backhoe during operations is as important as your start up and shut down procedures.

Keep your backhoe loaders low and balanced when you travel across rough or hilly ground.

If you're hauling a bucket of dirt, keep it low until you're ready to drop a load. A full bucket carried overhead makes the BHL top-heavy.

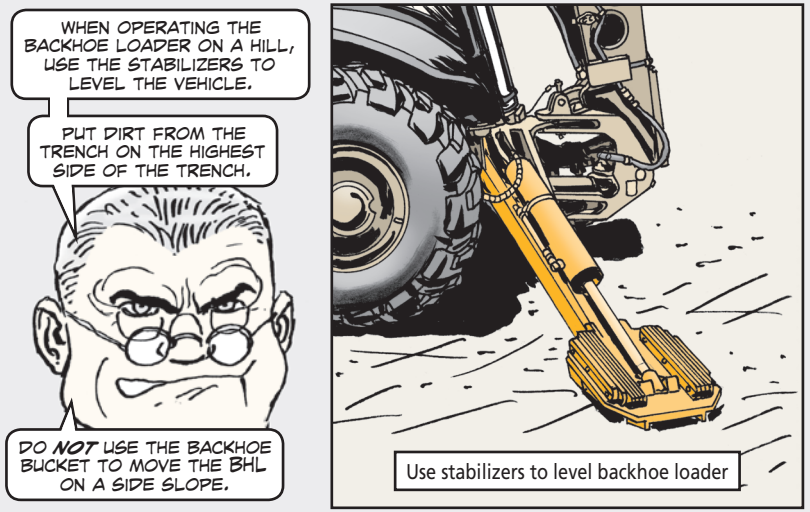
When you're on the move, gullies, bumps and slopes can pack a real jolt and rock the vehicle from side to side. With enough bouncing, it could tip over.



PS MORE

Time for Some Digging

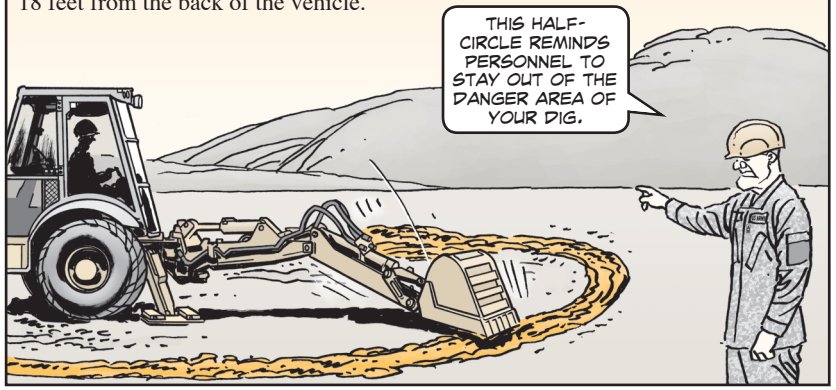
Safety is important for backhoe loader operations. For tip-top backhoe operations, keep these pointers in mind. You'll find this info on WP 0012-8 and 0012-9.



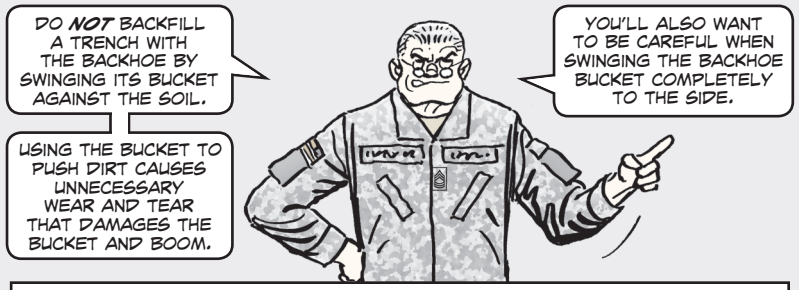
Always position the seat in the loader position with the seat belt fastened. Always engage the parking brake and move the shift-direction control lever to neutral before operating the backhoe.

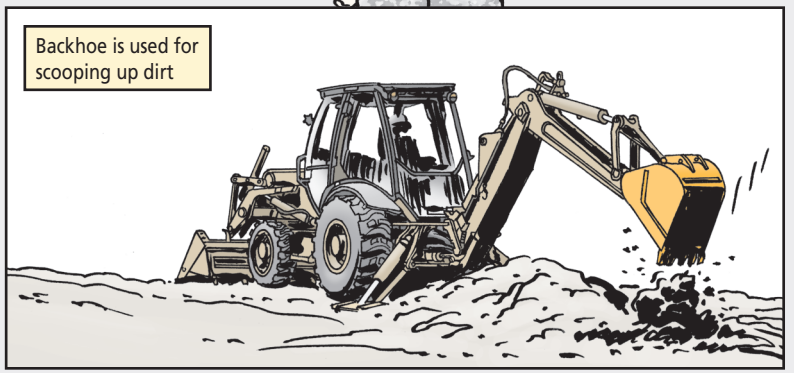
Drawing the Line

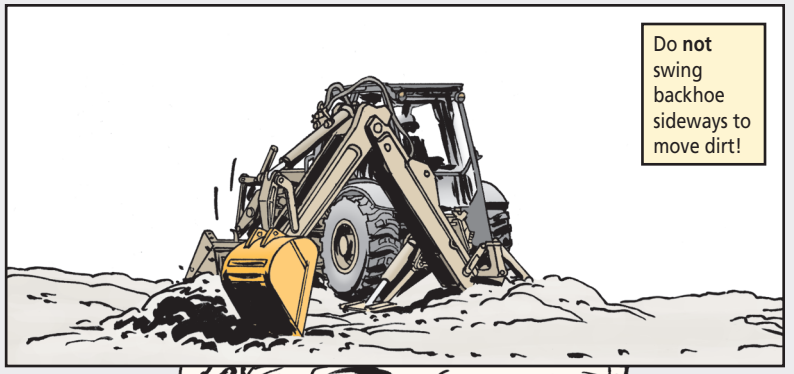
A good rule of thumb is to extend the backhoe boom and draw a line in the dirt before you start digging at the worksite. This line forms a half-circle that's almost 18 feet from the back of the vehicle.



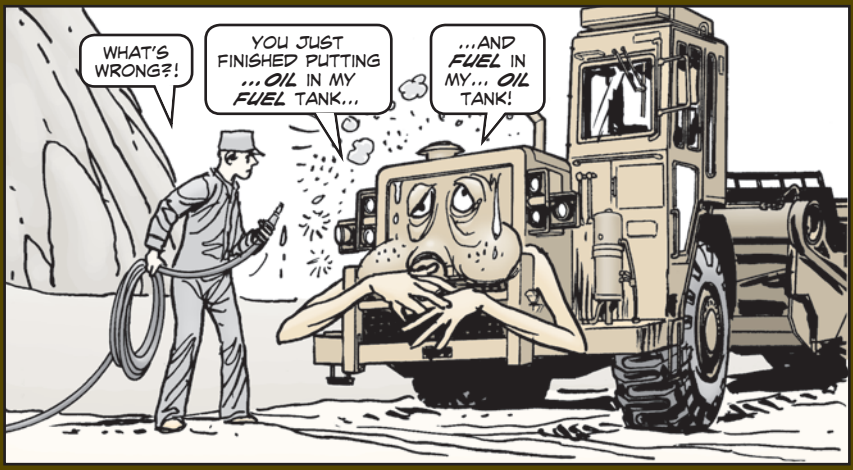
Backfilling trenches







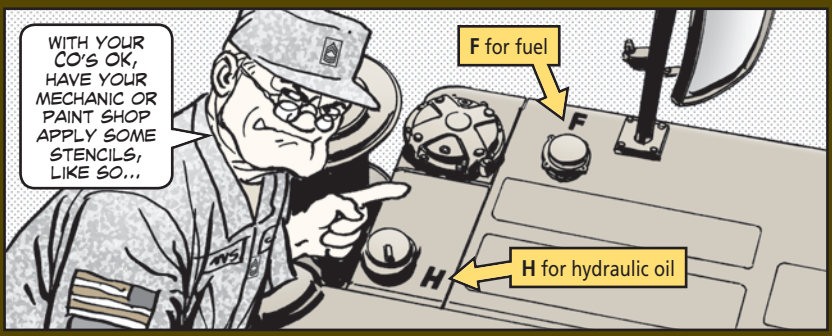
FUEL AND HYDRAULIC TANK INFO



You're moving dirt at the worksite and the boss is on your back about next week's deadline. Even the best of operators find themselves hurried and harried—and making mistakes. It doesn't have to happen to you.

Make sure fuel goes in the fuel tank and hydraulic fluid goes in the hydraulic tank. Sounds simple–real simple. Problem is, the filler caps for both tanks are next to each other, and not so easy to get at. It's real easy to get 'em mixed up if you're not paying attention or in a hurry. When hydraulic oil gets tossed in with diesel fuel (or vice versa), your scraper will shut down faster than Superman drinking a kryptonite milkshake!

Both filler caps are marked and illustrated in WP 0002 00-5 of TM 5-3805-248-10.



Use black CARC, NSN 8010-01-229-7540, and the 1-in stencil from the standard automotive tool set.

ULLS–A(E) Course Available

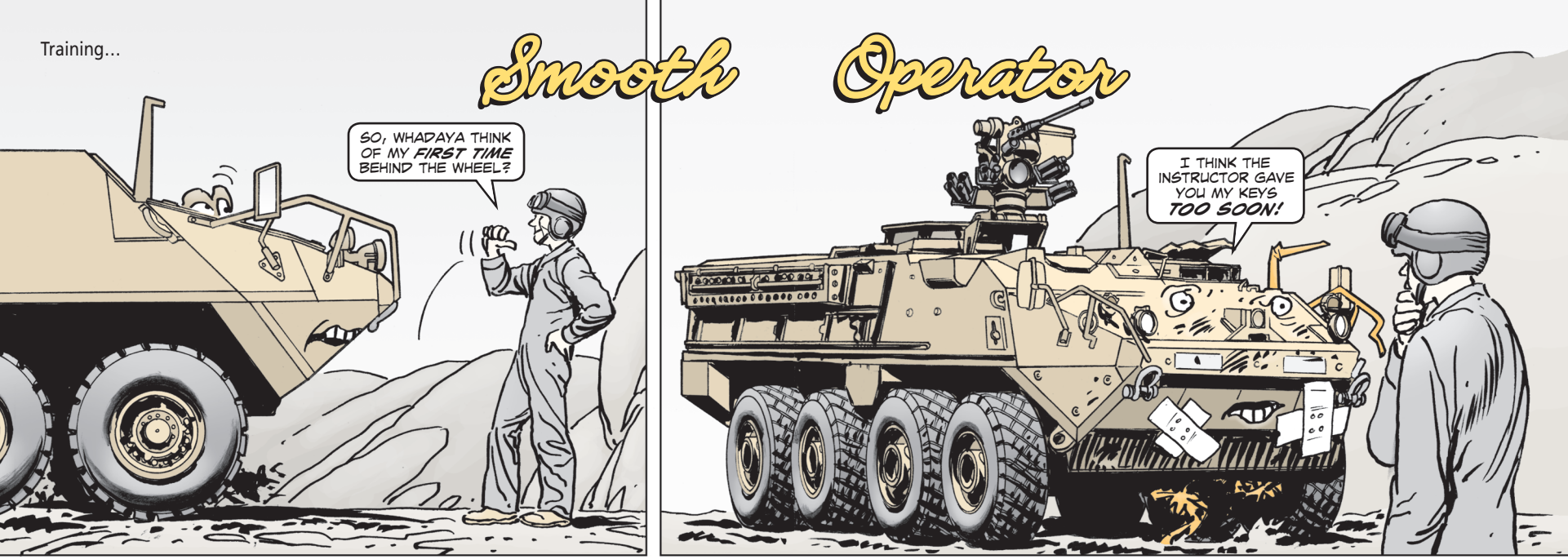
The Quartermaster School, Logistics Training Department at Ft Lee is offering a Unit Level Logistics System—Aviation (Enhanced) [ULLS-A(E)] Additional Skill Identifier (ASI) course. This course fills the training gap that occurs when Soldiers train as 92As and then get placed in 92A Aviation positions.

The target audience for the course is E1-E5 Soldiers qualified in MOS 92A with an aviation duty assignment, DA civilians, contractors, and other personnel who supervise MOS 92A personnel operating ULLS-A(E). Military personnel with an aviation MOS (for example, 15 series or 151 series) can also attend the course.

The 10-day course focuses on aviation-specific tasks such as tech supply and production control. Students who successfully complete the course are awarded an ASI of C7.

For course dates and more information, email: **jerome.pepper@us.army.mil**

Smooth Operator

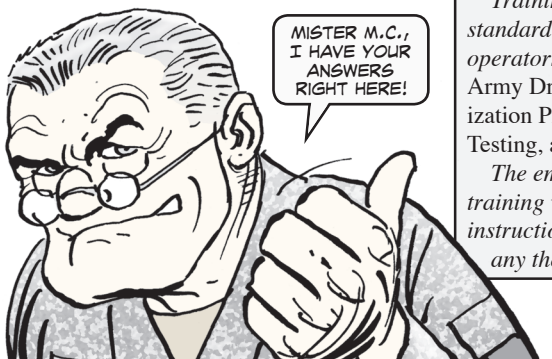


Dear Half-Mast,

Is there a prescribed length of time that an operator should spend behind the wheel before he or she is licensed on a piece of equipment?

Also, is there a set time frame for classroom training before the operator goes out on the road? How much time should be spent in the classroom and how much should be hands-on training?

Mr. M.C.



Because learning curves vary, all operator training should be outcome-based and follow the standards prescribed in the specific training circular (TC) for each vehicle. Outcome-based training accommodates the unique learning pace and needs of each individual, rather than the general pace of a class or group.

Training circulars provide standardized training and testing for operators following AR 600-55, The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing).

The emphasis is on hands-on training with minimal classroom instruction. (Note: TCs do not include any theater-unique requirements.)

Training techniques are generally aimed at novices (inexperienced operators of tactical wheeled vehicles) or apprentice operators, who have driven military vehicles for at least one year. It seems logical that operator skills might be easily transferred from one vehicle to another, but experienced master driver trainers know that is sometimes not the case. It's possible that an apprentice may need more training than a novice to safely operate an unfamiliar vehicle.

Noncommissioned officers responsible for training Soldiers on unit vehicles must ensure those Soldiers test to the same standards contained in the applicable TCs. Soldiers licensed through unit training programs should be supervised until they gain the experience to operate vehicles safely and correctly in their unique operating environments.

New operators should not be placed in situations beyond their skill levels. Supervisors should occasionally ride with all of their operators to see if procedures are followed and to assess the need for additional, refresher, or remedial training.

For further information, visit the Army Driver Standardization Office's website:

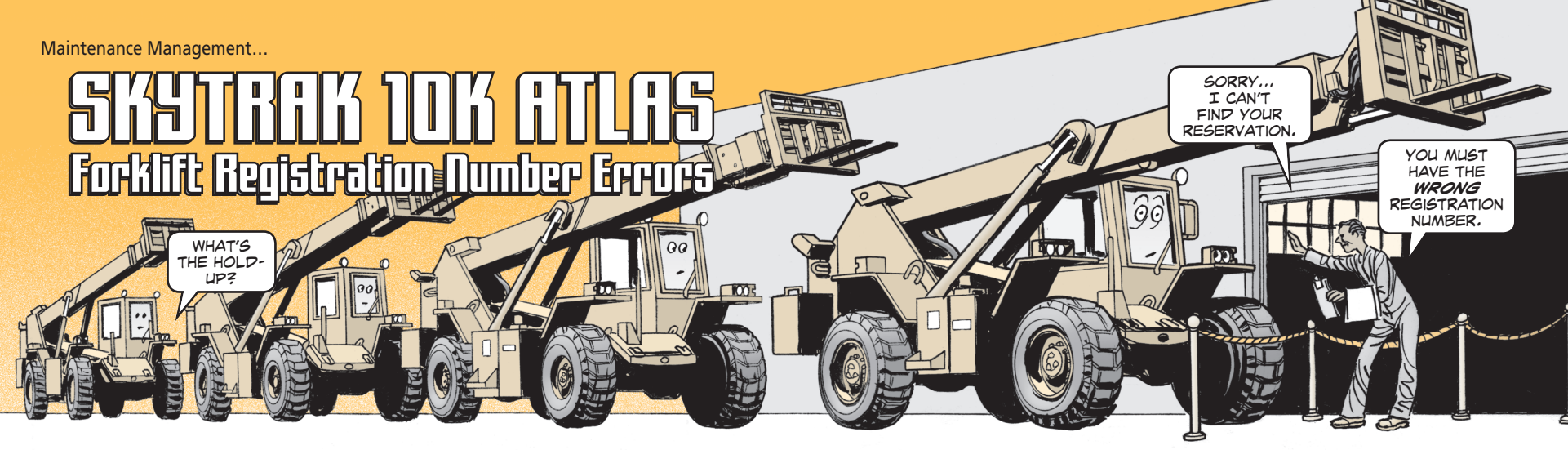
http://www.transchool.eustis.army.mil/adso/ADSO_index.htm

Or email:

eustis.AMVTCcentral@conus.army.mil

Half-Mast

SKYTRAK 10K ATLAS
Forklift Registration Number Errors



Incorrect registration numbers (REGNOs) were recently assigned to a number of SKYTRAK 10K ATLAS Forklifts, NSN 3930-01-417-2886. Some ATLAS were assigned REGNOs already assigned to other ATLAS, and some were assigned REGNOs belonging to trailers.

New REGNOs have been assigned. See the lists below. If your ATLAS is identified there, notify your property book officer to correct your unit's records.

Serial Number	Corrected REGNO
10KA0610	WL0KFV
10KA0611	WL0KFW
10KA0612	WL0KFX
10KA0613	WL0KFY
10KA0614R	WL0KFZ
10KA0615	WL0KG0
10KA0616R	WL0KG1
10KA0617	WL0KG2
10KA0618	WL0KG3
10KA0619	WL0KG4
10KA0620	WL0KG5
10KA0621	WL0KG6
10KA0622	WL0KG7
10KA0623	WL0KG8

Serial Number	Corrected REGNO
10KA0624	WL0KG9
10KA0625	WL0KGA
10KA0626	WL0KGB
10KA0627	WL0KGC
10KA0628	WL0KGD
10KA0629	WL0KGE
10KA0630	WL0KGF
10KA0631	WL0KGG
10KA0632	WL0KGH
10KA0633R	WL0KGJ
10KA0634	WL0KGK
10KA0635	WL0KGL
10KA0636	WL0KGM
10KA0637	WL0KGN

Serial Number	Corrected REGNO
10KA0638R	WL0KGP
10KA0639	WL0KGQ
10KA0640	WL0KGR
10KA0641	WL0KGS
10KA0642	WL0KGT
10KA0643	WL0KGU
10KA0644	WL0KGV
10KA0645	WL0KGW
10KA0646	WL0KGX
10KA0647R	WL0KGY
10KA0648	WL0KGZ
10KA0649	WL0KH0

Serial Number	Corrected REGNO
10KA0650	WL0KH1
10KA0651	WL0KH2
10KA0652	WL0KH3
10KA0653	WL0KH4
10KA0654	WL0KH5
10KA0655	WL0KH6
10KA0656R	WL0KH7
10KA0657	WL0KH8
10KA0658	WL0KH9
10KA0659	WL0KHA
10KA0660	WL0KHB
10KA0661	WL0KHC

Note: An additional 295 ATLAS were recently fielded with incorrect REGNOs that begin with the letters 'NW', which belong to trailers. The serial numbers (SNs) affected are in two blocks:

10KA2390—10KA2479 (90 total)
10KA2513—10KA2717 (205 total)

The new REGNOS assigned to all affected ATLAS are listed in the Ground Equipment Tracker:

https://weblog.logsa.army.mil/Veh_reg/main_input.cfm

Important: Under search options, choose SN. Prior to submitting the query, ensure the ALL RECORDS status option is chosen.

P.S MORE

Data Plate and Vehicle Marking Guidance

The data plate has sufficient space to the right of the REGNO stamping to enter the correct REGNO:

- Use a die set letter 'X' to carefully stamp over the existing REGNO characters
- Leave an approximately 1/2-in separation between the old and new REGNO
- Use character dies to carefully stamp the newly assigned six character REGNO as listed in the Ground Equipment Tracker
- Ensure all exterior (stenciled) REGNO markings are corrected.

Documentation

For each item:

- Update the property book record
- Update the TEDB owning unit identification code by submitting a DA Form 2408-9 *(Equipment Control Record)* transfer report via the Ground Equipment Verifier in LIW:
  https://weblog.logsa.army.mil/gcssarmy/spr/asset_verifier_tedb/main_input.cfm
- Make a copy of the new DA Form 2408-9 for your unit's logbook.

For SN and REGNO assistance, email: **logsa.tedb@conus.army.mil**

PS END

Data Plate and Vehicle Marking Guidance

The data plate has sufficient space to the right of the REGNO stamping to enter the correct REGNO:

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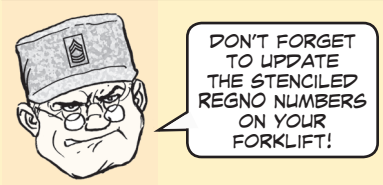

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For SN and REGNO assistance, email: logsa.tedb@conus.army.mil

PS END

Connie's Post Scripts

Blackhawk Gunner's Seatbelt

There is another NSN for the Blackhawk gunner's seatbelt, NSN 1680-01-528-3687. The other seatbelt, NSN 1680-01-255-2179, has an acquisition advice code of "V". That means it's still available until stock is gone. The RPSTL will be updated to include the new NSN.

M577A2 Personnel Heater Fittings

When ordering fuel line parts for your M577A2 command post carrier's personnel heater, make note of two changes to Fig 298 of TM 9-2350-261-24P (Aug 05). Item 33: Get a new tube elbow with NSN 4730-00-090-0564 (PN MS51522A6S, CAGE 96906). It replaces pipe elbow, NSN 4730-00-902-2055, which is a terminal item. Item 34: A new pipe-to-tube straight adapter comes with NSN 4730-00-187-0843 (PN AS5194, CAGE 81343). It replaces NSN 4730-00-081-4929, which is no longer available. Also, add V35 (M113A2) to the usable on code (UOC) for this item.

M109A6 Paladin Microclimatic Switch NSN Change

The NSN for the M109A6 Paladin's microclimatic conditioning system (MCS) high pressure switch has been changed from NSN 5930-01-508-6931 to NSN 5930-01-355-2440. It's shown as Item 17 in Fig 136 of TM 9-2350-314-24P-2. Make a note until the TM is updated.

DS2 Is Through! Turn It In

The Army announced five years ago that it was through with DS2, the decontaminant used with the M11 and M13 decon systems.

Unfortunately, some units never got the word and there are still lots of DS2 out there. Chemical companies and CBRN specialists need to check their stocks for DS2 and if they find any, **turn it in.**

The DS2 NSNs affected are 4230-00-720-1618 (M11 DAP), 4230-01-133-4124 (M13 DAP), 6850-01-136-8888 (M13 refill), 6850-00-753-4870 (5-gal pail) and 6850-00-753-4827 (1 1/3-qt can).

Turn in DS2 through your local supply support activity. They will coordinate DS2 disposal with the Defense Reutilization and Marketing Office (DRMO) following the guidance in TACOM SBC Supply Advisory Message 04-12-012.

The M11 DAP has been replaced by the M100 sorbent decon system, NSN 4230-01-466-9095, on a 1-to-1 basis. The M13 DAP is replaced by the M100 on a 1-to-3 basis—replace every M13 with three M100s.

For thorough decon operations, the Army recommends super tropical bleach (STB), NSN 6850-00-297-6653.

Questions? Contact TACOM's Rhonda Seedorf, DSN 793-6093, (309) 782-6093, or email: rhonda.l.seedorf@us.army.mil

Or contact Diane Converse, DSN 793-2428, (309) 782-2428, or email: diane.converse@us.army.mil

No DRMO for M2 Aiming Circle

The M2A2 aiming circle hasn't been manufactured since the '50s and it hasn't been upgraded since the '80s. But the Army is still using the M2A2 and wants to keep using it. That's why the M2A2 should never be turned in to DRMO. If you have an M2, NSN 1290-00-614-0008, or M2A2, NSN 6675-01-067-0687, that doesn't work or is excess, turn it in. The Army will upgrade the M2 or fix the M2A2 and get it back to the field.

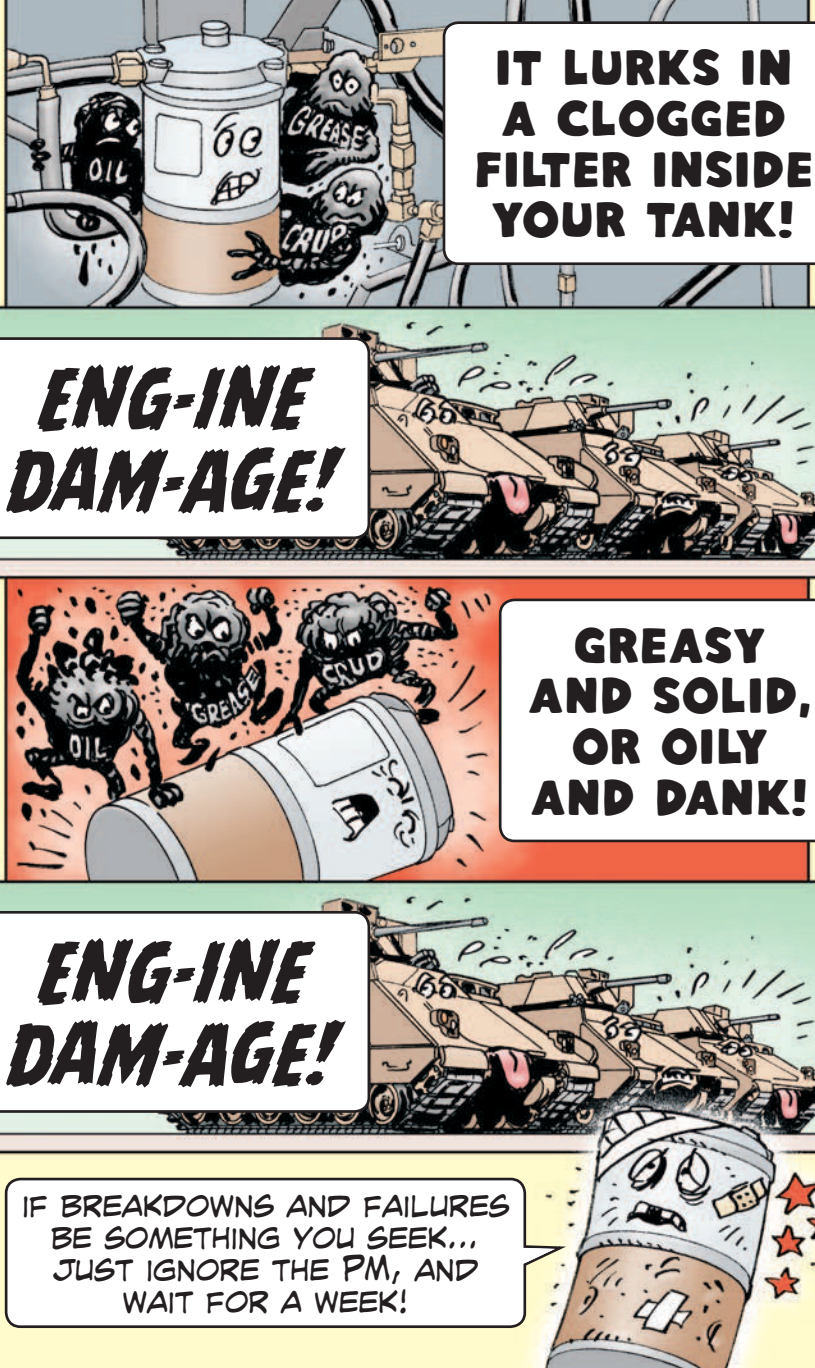
For turn-in instructions, contact TACOM-Rock Island's Brendan McCann at DSN 793-6163, (309) 782-6163, or email: brendan.mccann1@us.army.mil

Replace Wrong Boresight Stem

The Graflex 12x boresight kit, NSN 1240-01-545-5147, was fielded in some cases with the wrong boresight stem. The correct stem is 6.2 inches long and the wrong one is 5 inches. If you received the wrong boresight stem, you can get a retrofit kit with all the necessary parts and installation instructions by contacting Rich Harris at DSN 793-6481, (309) 782-6481, or emailing: richard.j.harris@us.army.mil

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

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


OIL
GREASE
CRUD
IT LURKS IN A CLOGGED FILTER INSIDE YOUR TANK!
ENG-INE DAM-AGE!
GREASE
CRUD
OIL
GREASY AND SOLID, OR OILY AND DANK!
ENG-INE DAM-AGE!
IF BREAKDOWNS AND FAILURES BE SOMETHING YOU SEEK... JUST IGNORE THE PM, AND WAIT FOR A WEEK!