



THE PREVENTIVE MAINTENANCE MONTHLY

ISSUE 735 FEBRUARY 2014

TB 43-PS-735, 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. The use of product or company names does not constitute endorsement of those products, services or companies by the U.S. Army. The use of non-DoD hyperlinks, along with their content, does not constitute endorsement by DoD or DA. Neither DoD nor DA exercises any editorial control over, and cannot vouch for, content on non-DoD websites.



COMBAT VEHICLES

M1-Series Tank Bustle Rack, Cargo Net
Stryker Hub O-Ring Check
AVLB O-Ring NSN Change



TACTICAL VEHICLES

FMTV Cab Support Tool
FMTV Air Tank Moisture Drain
M1089A1 LMTV Crane Load Test
FMTV Convex Safety Mirrors
M1077 PLS Flatrack Stowage Boxes
M870/M870A1 Semitrailer Decking
Towing Safety Tips
Tire Shelf Life Code



COMBAT ENGINEERING

RTCH Starting Caution
966H Heavy Scoop Loader General PM
M9 ACE Step, Starter Relay, Exhaust Hose
MK2 Bridge Erection Boat CPS Code



AVIATION

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Handling Aircraft Fire Extinguishers
UH-60M Unserviceable Flight Control Computers
ALSE SKRAM Use, Components
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SMALL ARMS

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Mortar Components Tritium Caution
Mortar Training
M7 Spider MDS Sterilization vs. Zeroization



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Containerized Kitchen Trailer Wheel Parts
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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-GP)

Bldg. 3303

Redstone Arsenal, AL 35898

Or email to:

half.mast@us.army.mil or

usarmy.redstone.logsa.mbx.psmag@mail.mil

Internet address:

https://www.logsa.army.mil/psmag/pshome.cfm

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RAYMOND T. ODIERNO

General, United States Army Chief of Staff

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Administrative Assistant to the Secretary of the Army

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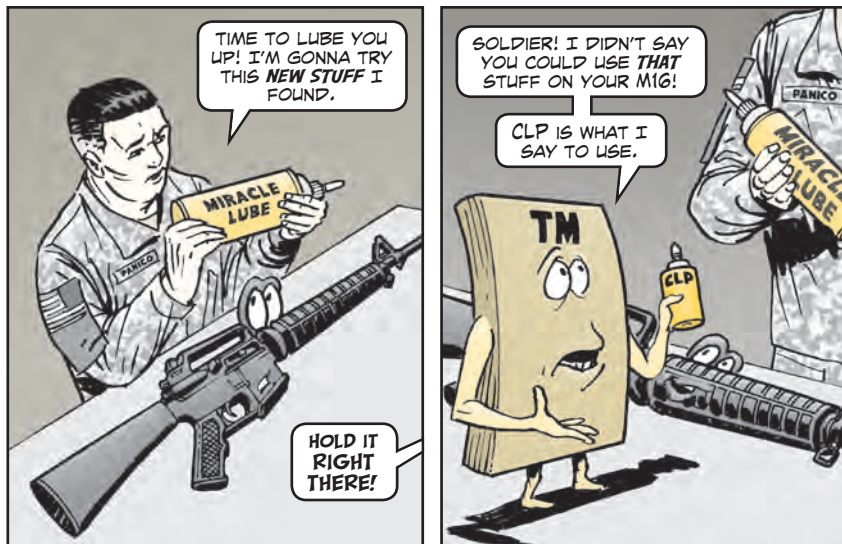
**NEED HELP
WITH
GROUND
GUIDE
SIGNALS?
SEE PAGES
26-37**

WHAT
TH-!?

MAN, I WISH I'D
REMEMBERED MY
SIGNALS. I HOPE
THIS IS RIGHT!



If TM Says Do It, Do It! Otherwise, Don't!



If Soldiers followed these two simple rules, they would save themselves and their equipment a lot of trouble.

The Army spends a great deal of time preparing operator technical manuals that tell you exactly what you need to do to keep your weapon, vehicle, aircraft, or radio operating smoothly.

If you follow the PMCS and other maintenance instructions in the -10 TM with true dedication, you have an excellent shot of not having any trouble with your equipment. And even if you do, the TM's troubleshooting chart will often help fix the trouble.

But if you think you can improve on what the TM instructs you to do, then you're asking for trouble. For example, using a commercial sight on your M16 rifle or a different lubricant than what the TM lists, can leave you missing the target or, even worse, not being able to fire at all because your rifle jammed.

Also, just because something has an NSN doesn't mean it's OK to use. A particular lubricant might be fine for your M16 rifle, but definitely shouldn't be used on the MK 19 machine gun. Once again, your TM has the word. Follow it and you should be OK.

If you aren't sure you understand something in the TM, contact your local logistics assistance office (LAO). The LAO has equipment experts who can clear up your confusion.

Let your TM be your guide and you will stay on the road to success.



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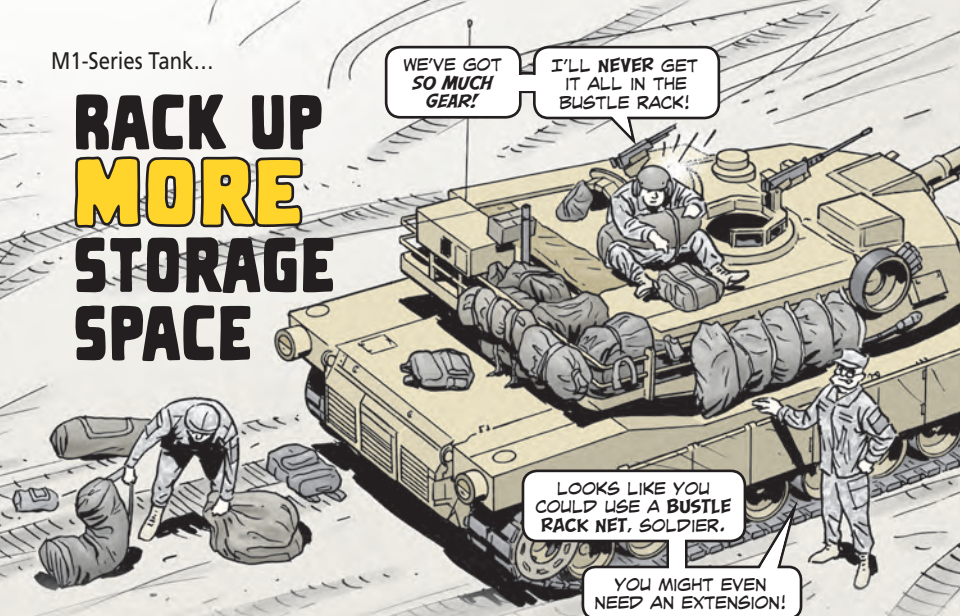
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RACK UP MORE STORAGE SPACE



Crewmen, heading out to the field means taking a **lot** of gear. So make sure your bustle rack is equipped to handle everything you'll need.

Get an adjustable cargo net made especially for your M1's bustle rack with NSN 3940-01-503-8210. The net hooks into place over the bustle rack and is easily adjustable for a snug fit.

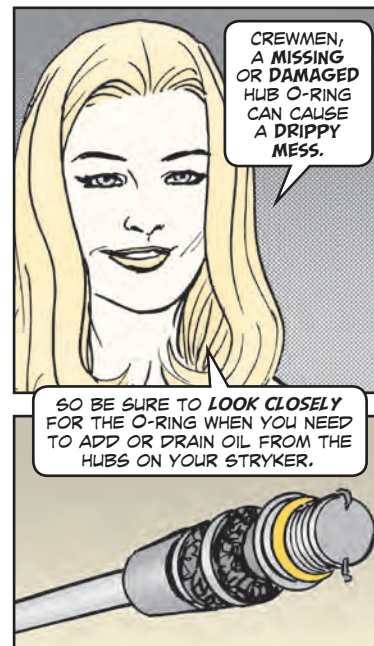
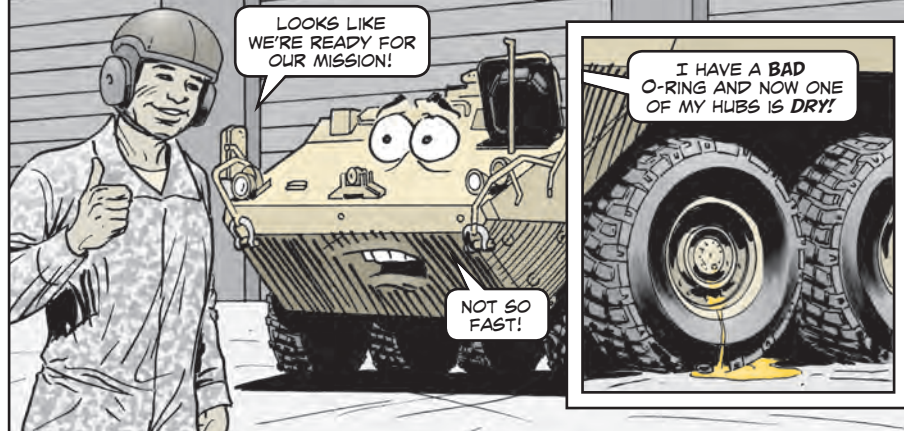
Get a bustle rack cargo net with NSN 3940-01-503-8210



A three-position molded nylon clamp locks a clinching rope, which goes around the entire net. Each net comes with a bag for storage and instructions on how to attach it to the rack.

Also, if you find that you have more gear than your M1's bustle rack can handle, order an extension kit, including the hardware, with NSN 2590-01-496-4092. The extension kit will fit all M1-series tanks' bustle racks, including ones equipped with an external auxiliary power unit.

Check O-Rings to Avoid Leaky Hubs



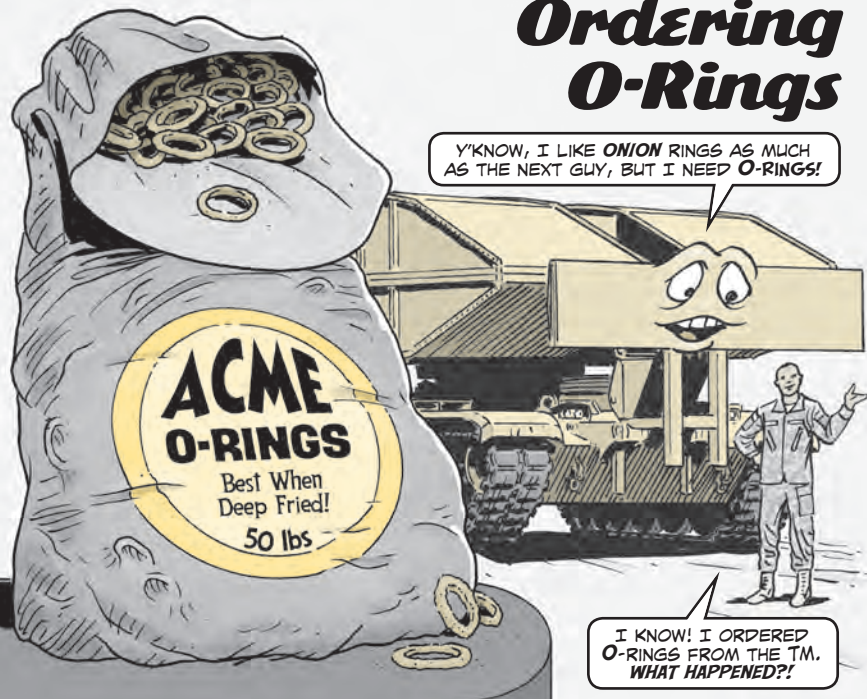
A missing or damaged O-ring means you won't get a good seal and the hub can leak. If the leak's bad enough, the hub goes dry and the bearings can burn up.



Replace missing or damaged O-rings with NSN 5330-12-156-4524. If the old O-ring is undamaged, wipe it off before reinstalling the plug. If there's a lot of dirt or sand on the O-ring, it won't seal properly and you've got leak problems all over again.

New Info for Ordering O-Rings

Y'KNOW, I LIKE **ONION** RINGS AS MUCH AS THE NEXT GUY, BUT I NEED **O-RINGS**!



I KNOW! I ORDERED **O-RINGS** FROM THE TM. **WHAT HAPPENED?!**

THE AVLB'S TM 5-5420-202-24P (JAN 06, W/CH 1, SEP 07) HAS SOME **OUT-OF-DATE** INFORMATION LISTED FOR ORDERING O-RINGS.



FOR THE FIGURE AND ITEM NUMBERS LISTED HERE, **CROSS OUT** NSN 5331-01-481-3965, CAGE 0GGM9 AND PART NUMBER KADAC 1195.

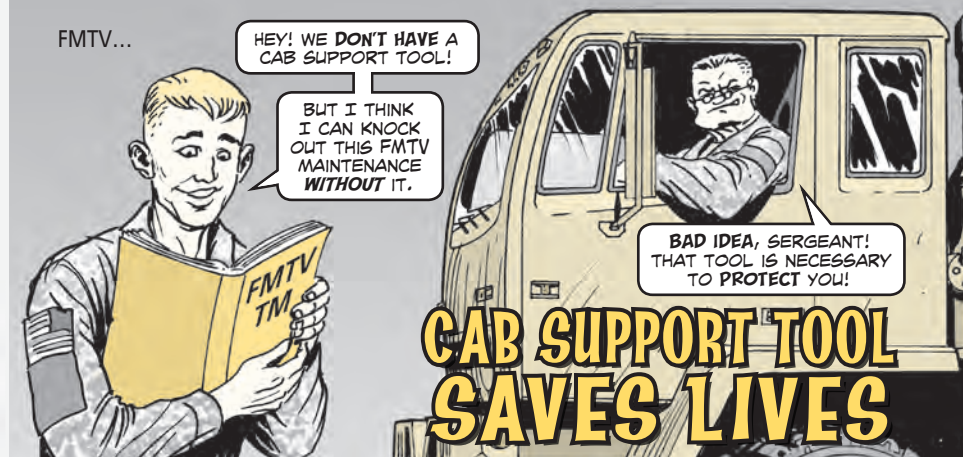
Figure	Item	Figure	Item
222A	11	231A	3
225A	4	237A	1
229C	3	237B	2
230A	3	238B	2

REPLACE THEM WITH NSN 5331-01-418-2974, CAGE 81343 AND PART NUMBER A63581-018.

HEY! WE **DON'T** HAVE A CAB SUPPORT TOOL!

BUT I THINK I CAN **KNOCK OUT** THIS FMTV MAINTENANCE **WITHOUT** IT.

BAD IDEA, SERGEANT! THAT TOOL IS **NECESSARY** TO PROTECT YOU!



Experience is never a substitute for the education you get from your vehicle's TM. Sadly, a seasoned mechanic found that out the hard way. While replacing the cab hydraulic cylinder on an M1078 LMTV, the 3,000-lb cab dropped on him. He didn't survive.

Mechanics, make sure you follow the guidance in the TM **every time** you work on vehicles. You'll find the procedure for replacing the cab hydraulic cylinder in your FMTV's maintenance TMs. They call for the use of a cab support tool that keeps the cab from falling.

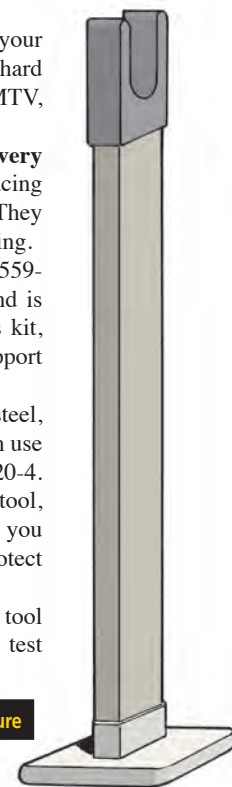
Your unit can order the cab support tool using NSN 2590-01-559-7459. It can be used on FMTV -A0, -A1, and -A1R trucks and is included with the FMTV field-level maintenance special tools kit, NSN 5180-01-545-9967. There's no requirement for a cab support tool to be used on FMTV -A1P2 LTAS trucks.

Or the life-saving cab support tool can be made using flat bar steel, a piece of angle iron, and Insulgrip (PN H.S. 105VW-1). You can use the fabrication details that start on Page E-6 of TM 9-2320-365-20-4.

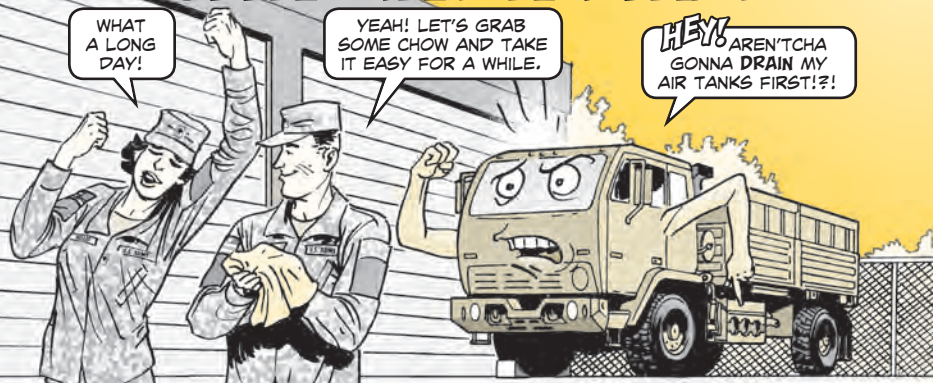
Keep in mind that if your unit doesn't have a cab support tool, you shouldn't be doing maintenance that requires it. Make sure you use either a cab support tool or a suitable lifting device to protect yourself.

On the work order, show the truck in a "P" status until the tool is available. That means it's NMC for lack of facility, tools, test equipment or completion of intra-shop work requests.

Use cab support tool when required by TM procedure



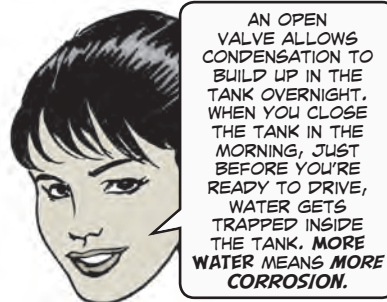
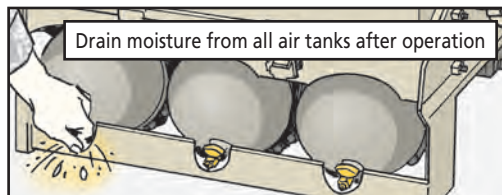
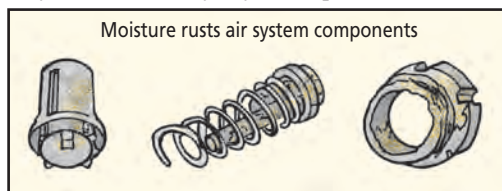
FMTV... GOTTA DRAIN AIR TANKS



Operators, air and water aren't a winning combination if they mix. That's why you've gotta drain the air tanks on your FMTV every day after operation.

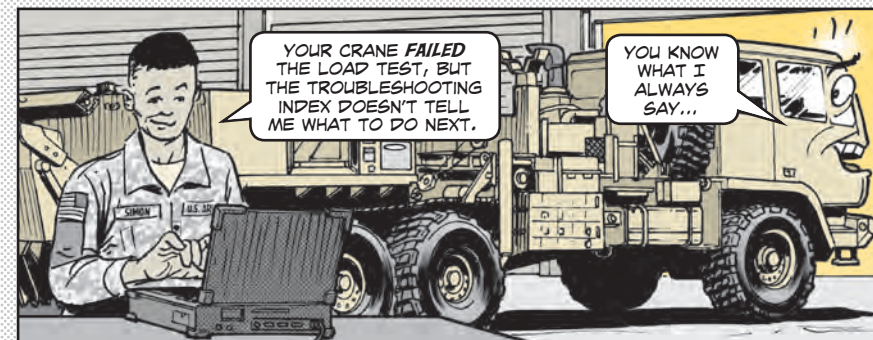
If you don't, moisture builds up. It creates corrosion that plugs up the entire air system, including brake valves and cylinders, CTIS filters, and gladhands. It can lead to brake failure, too!

So make sure you drain the water from each air tank at the end of each day. Just open each tank's valve until no more moisture comes out. Then close the valve tightly when you're done.



M1089A1 LMTV...

WHAT'S THE NEXT STEP FOR WRECKER LOAD TEST?



Dear Half-Mast,

I have been trying to load test an M1089A1 wrecker's material handling crane. But the maintenance support device (MSD) doesn't have a fault in the troubleshooting index for "crane fails load test."

Where do I go from here?

SFC T.D.S.

Dear SFC T.D.S.,

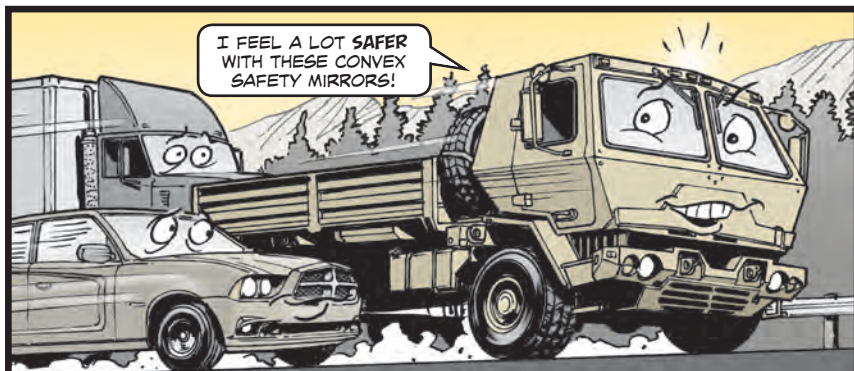
During the load test, there are notes that tell the tester to refer to "troubleshooting" to determine failure of the crane's overload protection system.

Enter "troubleshooting" and type in the serial numbers for the truck and transmission when prompted.

Next, select "electrical system" and "material handling crane." Once you're in the MHC section, there are plenty of selections you can make.

Half-Mast

FMTV... **ADD CONVEX SAFETY MIRRORS**



Drivers, get a better view of what's alongside your FMTV by having your mechanic install a convex safety mirror, NSN 9340-01-478-3889, on your truck's side view mirror mounts. That NSN brings the mirror, brackets and all the hardware you need.

For replacement parts, check out this chart:

Item	NSN
Bracket (passenger)	5340-01-479-0602
Bracket (driver)	5340-01-483-1528
Flat washer	5310-00-809-4058
Self-locking nut	5310-00-877-5796

M1077
PLS
Flatrack...

GET STOWAGE BOXES FIXED OR REPLACED

Are the stowage boxes on your M1077 flatracks damaged or missing? You can't order a replacement box and TM 9-2320-364-14&P doesn't have the procedures for repairing them.

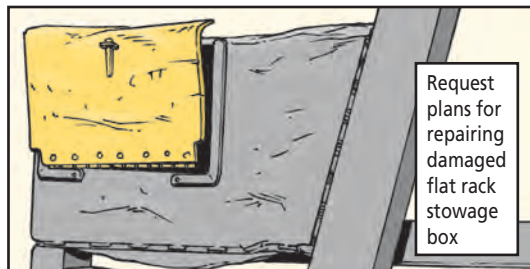
But you still need the boxes for secure, waterproof storage of tiedown straps. So what to do?

Your local support can make or repair the boxes using plans that are available by request. Just send a quick email to:

usarmy.detroit.tacom.mbx.ilsc-pls2@mail.mil

Or drop a line to Half-Mast at:

half.mast@us.army.mil or usarmy.redstone.logsa.mbx.psmag@mail.mil



M870/M870A1 Semitrailers...

Use the RIGHT Wood for Decking



Mechanics, when the wood decking in your M870/A1 semitrailer cracks and buckles, don't replace it with unapproved wood or rubber/composite products.

Unapproved products will just create bigger problems, like sagging, bent rails, cracked welds and busted cross members.

Purpleheart or apitong wood are the way to go when replacing the decking. These woods are stronger and more durable than other woods or composite boards. They resist rotting and ultraviolet rays, repel water and require little maintenance.

Purpleheart and apitong are also denser than other woods, so you'll need a carbide blade to cut them. Same goes for drilling holes. Use carbide-tip drill bits.

Apitong wood comes as a kit, NSN 5510-01-525-6325. The kit has all the wood you need for your semitrailer for just under \$5,700. Purpleheart wood, NSN 5510-01-454-8568, must be purchased by board feet (BF). It takes 325 BF to re-deck your trailer, so the cost is a little over \$2,000.

When ordering purpleheart wood, keep in mind that the boards will come in random widths and lengths. The boards range from 4 to 10+ inches wide with lengths running from 8 to 17 feet. So while purpleheart costs less than the apitong wood kit, you'll need to do more planning and cutting when re-decking your semitrailer.

Oil Preserves Decking

Constant exposure to the elements can eventually cause even these woods to dry, crack and splinter. Prevent that damage by spreading boiled-linseed oil on the decking. NSN 8010-00-684-8789 gets five gallons. Use NSN 8010-00-242-6114 for a 55-gal drum. Re-treat the deck whenever water stops beading on the surface.

Safety...

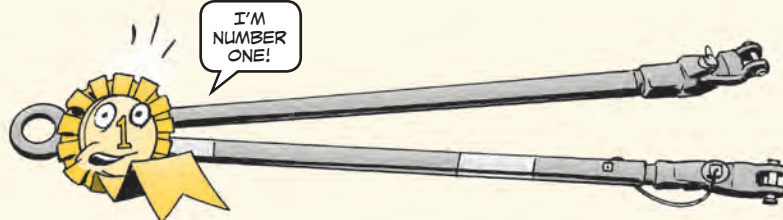
EVEN WELL-MAINTAINED TACTICAL VEHICLES CAN UNEXPECTEDLY BREAK DOWN.

THAT'S WHY IT'S SMART TO PLAN FOR THE WORST-CASE SCENARIO AND KNOW THE RIGHT WAY TO TOW.

HERE ARE SOME TOWING POINTERS...

TIPS FOR TOWING THE MARK

- A tow bar should be the first choice before using chains, ropes or cables.



- When using a tow bar, also connect a safety chain between the two vehicles in case the tow bar breaks or disconnects. Use a chain with an appropriate load rating.
- If a tow bar is unavailable, connect cables, chains or ropes to the pintle of the prime mover and to the lifting shackles of the towed vehicle.

- Do not put hands near the pintle hook when aligning it with the lunette eye hook.



- If you must tow in heavy traffic, tie the front lifting shackles of the towed vehicle tightly to the rear lifting shackles of the prime mover and connect the air brake lines.
- Use a ground guide when moving a disabled vehicle. The ground guide must remain visible to the driver at all times. See Chapter 11-4, Section (9)h in AR 385-10, *The Army Safety Program* (Oct 11), and Pages 26-37 of this issue for more ground guide rules and tips.
- Never allow anyone to stand between the two vehicles when the prime mover is backing up to the disabled vehicle.
- Never allow anyone but the driver to ride in the disabled vehicle being towed.
- Prior to towing, make sure all personnel are clear of vehicles before removing wheel chocks.

- Use reasonable speed for road conditions. The maximum speed limit when towing off road is 15 mph. On paved roads (highways), speed can be increased to 25 mph. However, terrain, weather and other conditions may require keeping speed lower.
- Avoid making sharp turns when towing. Keep turning speed at 5 to 10 mph to reduce skidding risk.
- Before disconnecting the vehicles, make sure both vehicles are on level surfaces with wheels chocked.

- Avoid hills with greater than a 20 percent incline. The weight of a disabled vehicle can push or pull the tow vehicle, causing loss of control.



Know Before You Tow

- Review towing procedures in vehicle TMs and FM 4-30.31, *Recovery and Battle Damage Assessment and Repair* (Sept 06).
- Recovery operations are a specific skill set. A trained vehicle recovery specialist (additional skill identifier H8) should be part of the recovery team whenever possible.
- **Warning:** If a disabled vehicle's brakes are not working, do not try to flat tow it. Call for dedicated wrecker support.

One for the Road

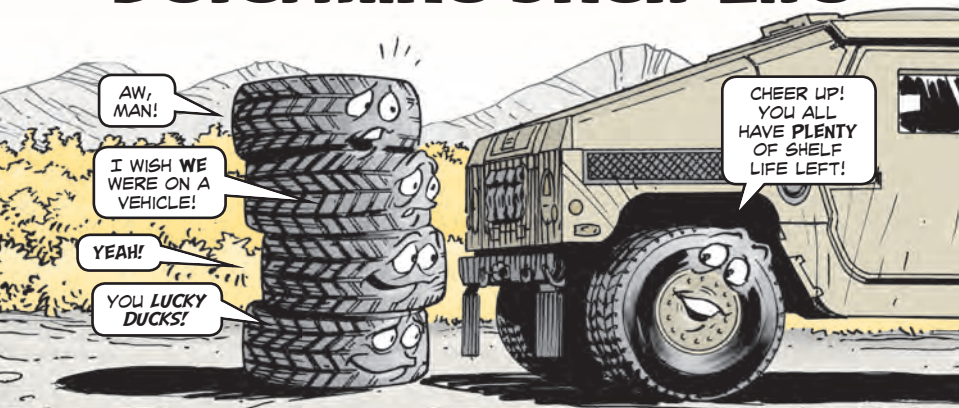


REMEMBER, FAILURE TO ASSESS TOWING RISKS AND USE DUE CAUTION BEFORE AND DURING RECOVERY OPERATIONS CAN CAUSE EQUIPMENT DAMAGE, BUT WORSE, IT MIGHT RESULT IN INJURY OR DEATH.

For more safety pointers, check out the USARC/Safety Center's Driver's Training Toolbox at: <https://safety.army.mil/drivertrainingtoolbox/>

Tires...

Last Four Numbers Determine Shelf Life



When conducting personal business, you sometimes have to give the last four numbers of your social security number. But that's not the only last four numbers that can give you key information. The last four numbers in the DOT code on tires tell you when the tires were produced.

Shelf Life Guidance

For serviceable tires on the shelf, use the DOT code to figure out how many weeks are left on the tire. The code on the sidewall of the tire will say "DOT" then show a series of characters. The last four numbers are the week and year of manufacture. The first two are the week of the year and the second two are the last two numbers of the year.



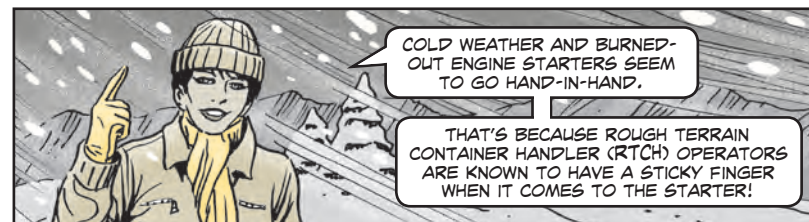
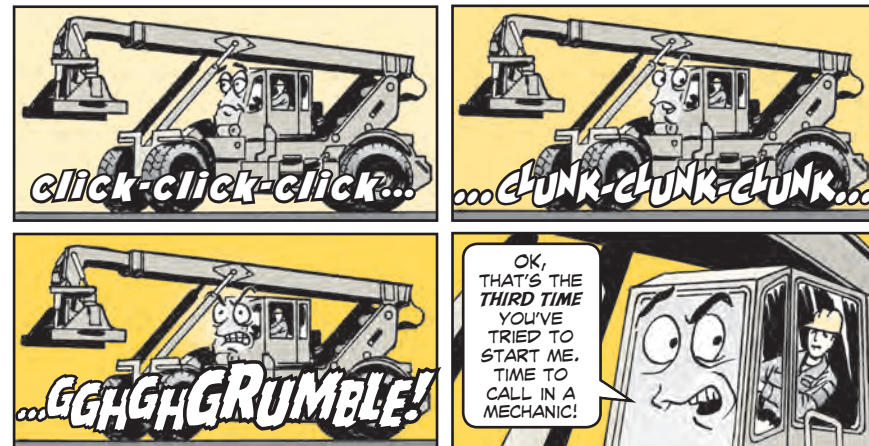
Tires have a 60-month or a 5-year shelf life from the date of manufacture to be put into service. For example, a DOT code ending in 5109 means that it was manufactured in the 51st week of 2009. So the unit has until the 51st week of 2014 to get that tire off the shelf and on a vehicle.

Once a tire's in service, you can keep using it until it becomes unserviceable. You still need to inspect tires for cracking, bulges, damage, low inflation and uneven wear while doing your vehicle's PMCS. If your vehicle is in storage, make sure you crank it up and exercise the tires sometimes.

For more on tires, eyeball TM 9-2610-200-14 (Sep 05).

RTCH...

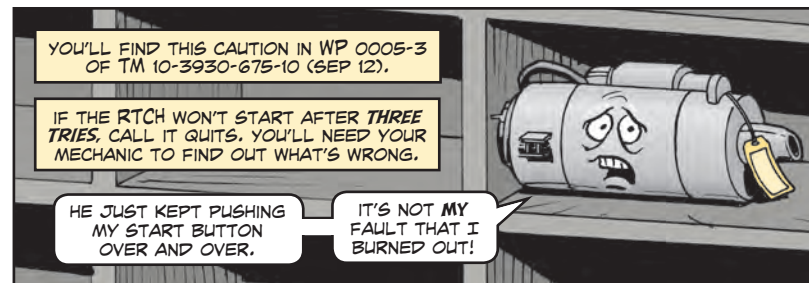
STARTING TAKES A LIGHT TOUCH



WHEN YOU'RE TRYING TO START YOUR CONTAINER HANDLER, **NEVER** KEEP THE STARTER ENGAGED FOR MORE THAN 30 SECONDS.

IF THE ENGINE DOESN'T START BY THEN, **STOP!**

GIVE THE STARTER AT LEAST **TWO MINUTES** TO COOL OFF BEFORE TRYING AGAIN.



966H
Heavy Scoop
Loader...

WE'RE READY TO
GO AS LONG AS
YOU'RE READY TO
DO SOME PM!

PM at the Worksite



OPERATORS, THE
CAT 966H HEAVY
SCOOP LOADER IS
A REAL WORKHORSE
ON THE JOB.



IT CAN LIFT BARRIERS
FOR INSTALLATION, GRADE
SURFACES, REMOVE AND
HAUL DIRT, AND STOCKPILE
GRAVEL FOR BUILDING
ROADS AND AIRFIELDS.



MAKE SURE
YOU FOLLOW ALL
THE CHECKS AND
SERVICES IN
TM 5-3805-291-10
(JAN 10). THEN KEEP
THESE PM TIPS IN
MIND BEFORE THE
DAY'S RUN.



Battery Disconnect Switch

Use the wheel loader's battery disconnect switch whenever the vehicle will sit idle for a month or longer. If the switch is left in the ON position, the batteries can lose their charge. No juice means your loader will need a slave start to get back to work on the construction site.

Whatever you do, don't use the battery disconnect switch to turn off your machine. That's what the ignition switch is for. Using the disconnect switch to shut down will fry your loader's electrical circuits. You'll find this info in the CAUTION on WP 0004 00-6 of the -10 TM.

By the way, when the battery disconnect switch is turned off, battery power is retained for another 30 seconds. That gives the vehicle's electronics enough time to shut down properly.

Use battery disconnect switch
when loader sits for a long time



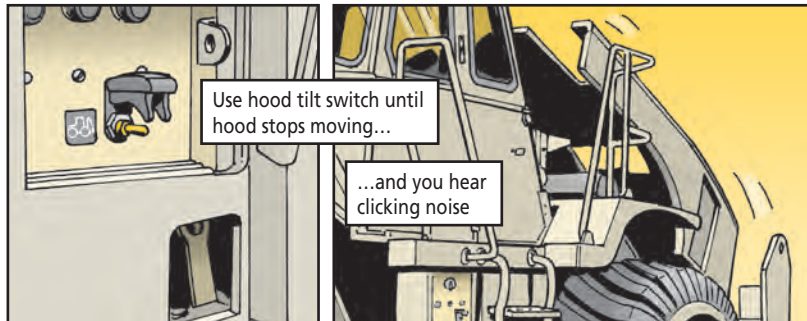
Do not use battery disconnect
switch when engine is running!



PS MORE

Hood Tilt Switch

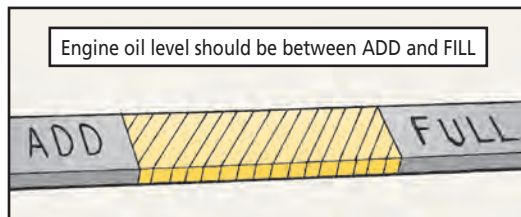
Just below the battery disconnect switch is the toggle switch for the vehicle's hood tilt. Pay close attention to the CAUTION on WP 0004 00-26 of the -10 TM. Use the switch to open or close the hood only until the hood stops moving. When the hood stops, you'll hear a clicking noise. That's your signal to release the switch. If you don't, you'll burn out the hood's actuator motor! The toggle switch automatically returns to the middle position when you release it.



Engine Oil Level

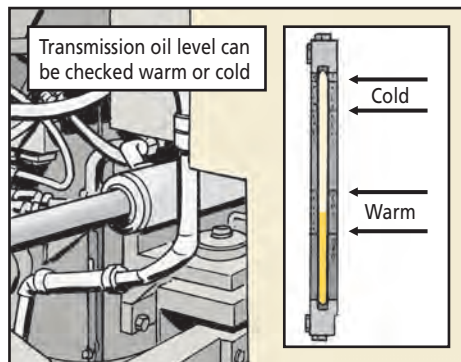
Check the oil level before operation while the engine is shut off. Open the service door on the right side of the vehicle and remove the dipstick. Wipe it off, slide it back in place, and then remove it once more to get a clean reading.

The oil level should be between the ADD and FULL mark on the dipstick. It can take as much as a gallon to reach the FULL mark from the lowest point on the crosshatched area of the dipstick.



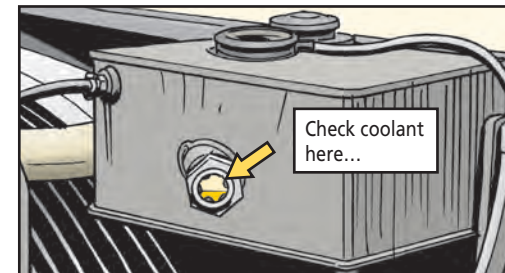
Transmission Oil Level

The transmission oil level sight gage is on the front of the transfer case on the left side of the vehicle. The red indicator should be within the WARM IDLE range when the oil is warm and the machine is running at low idle. The red indicator should be within the COLD START range when the oil is cold and the engine is not running. If necessary, open the fill cap and add oil through the filler tube.

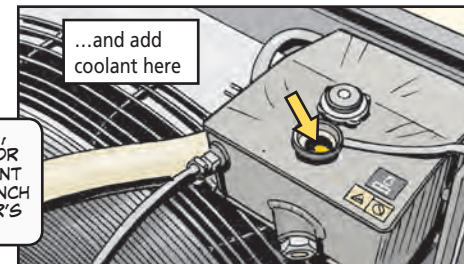


Coolant Level

Open the access door on the left-rear side of the vehicle to access the coolant level sight gage. You'll find the gage on top of the radiator. With the engine off, check the level in the sight gage. It should be at least half full.

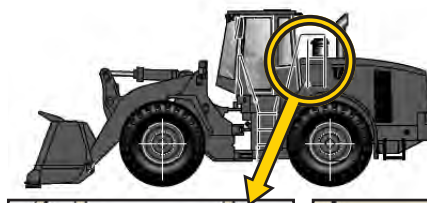


IF THE LEVEL'S LOW, REMOVE THE RADIATOR CAP AND ADD COOLANT UNTIL IT REACHES AN INCH BELOW THE RADIATOR'S FILLER NECK.



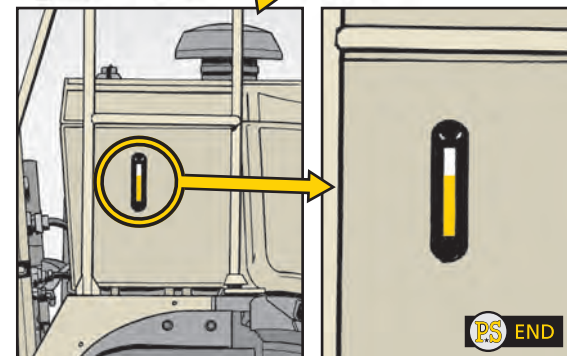
Hydraulic Oil Level

Look for the hydraulic tank on the left side of the machine behind the cab. Before checking the tank's oil level gage, make sure the loader's lift arms are lowered and the bucket is flat on the ground. That way you'll get an accurate reading.



Hydraulic oil level should be above ADD mark on sight glass

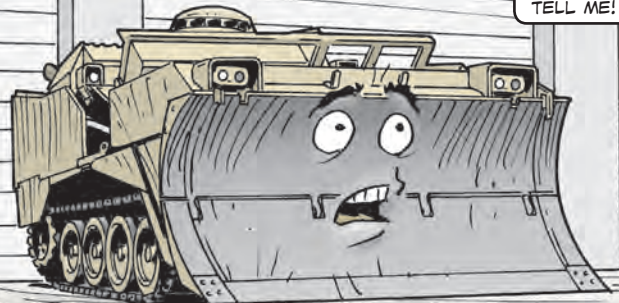
Check the oil level before operation with the engine shut off. Make sure the level is above the ADD mark on the sight. If necessary, remove the filler cap and slowly add oil.



THE RIGHT STEP MATTERS!

IT'S NOT A GOOD IDEA TO USE MY TRACK WHEN CLIMBING UP!

NOW YOU TELL ME!



MECHANICS, PUTTING YOUR BEST FOOT FORWARD IS SOMETHING TO KEEP IN MIND WHEN DECIDING WHERE TO STEP WHEN WORKING ON AN M9 ACE.

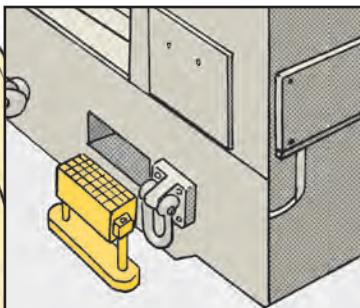
IT CAN SAVE YOU A LOT OF FRUSTRATION AND PAIN AND YOUR UNIT A BUNCH OF MONEY!

Use the Rear Step

USE **ONLY** THE STEP AT THE REAR OF THE ACE TO CLIMB IN AND OUT OF THE VEHICLE, INCLUDING THE BOWL.

DON'T USE THE TRACK AS A LADDER TO GET INTO THE BOWL.

IF THE VEHICLE'S HYDRAULICS SETTLE, YOUR FOOT CAN GET **CRUSHED** BETWEEN THE TRACK AND FRONT TRACK GUARD (FLORIDA PLATE).



Use step at rear of ACE to climb in and out of vehicle—including bowl

Starter Master Relay

THE EARTHMOVER'S STARTER MASTER RELAY DOES A GREAT JOB—UNLESS YOU DECIDE TO USE IT AS A PLACE TO REST YOUR SIZE 12s.

WHEN PULLING OUT THE VEHICLE'S FLOORBOARDS FOR CLEANING, SOME MECHANICS STEP ON THE RELAY'S PROTECTIVE BOX.

IT DOESN'T TAKE MUCH WEIGHT TO BREAK THE BOX'S MOUNTING BRACKET. THAT SHORTS OUT THE STARTER MASTER RELAY AND THE ACE WON'T START!

SO KEEP YOUR BOOTS OFF THE RELAY'S PROTECTIVE BOX.

HEY! WATCH WHERE YOU'RE STEPPIN', FELLA!



Exhaust Hose

REMEMBER TO STAY OFF THE EXHAUST HOSE INSIDE THE ENGINE COMPARTMENT.

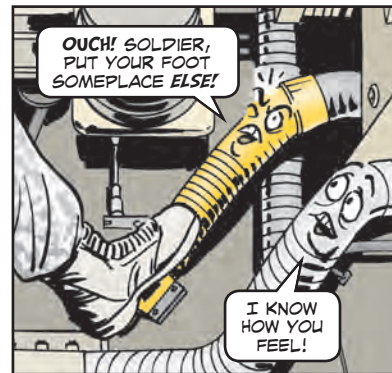
THE HOSE MAY LOOK LIKE A CONVENIENT FOOTREST WHILE YOU'RE WORKING ON THE ENGINE, BUT YOUR WEIGHT BREAKS THE HOSE CLAMPS.

OUCH! SOLDIER, PUT YOUR FOOT SOMEPLACE ELSE!

A BUSTED CLAMP MEANS EXHAUST GAS VENTS DIRECTLY ONTO THE BATTERIES AND COOKS 'EM.

ENGINE EXHAUST CAN ALSO SEEP INSIDE THE VEHICLE. THAT'S NOT GOOD FOR YOUR HEALTH!

I KNOW HOW YOU FEEL!



REPLACE A BROKEN CLAMP WITH NSN 5340-01-183-6863.

SO EYEBALL THE EXHAUST CLAMPS. SNUG UP THE HOSE AND TIGHTEN ANY LOOSE CLAMPS.

CAN'T FIGURE
OUT MY CPS
CODE? I'VE GOT
THE ANSWERS!

How to Break the "CPS" Code

Dear Half-Mast,

TM Supplement SMI 5-1940-277-12&P-1 (Sep 04) for our MK2 bridge erection boat has several part numbers with the code "CPS" beside them. The part numbers don't cross to an NSN and we can't figure out what that code means. How do we order those parts?

SSG R.H.W.

Dear Sergeant R.H.W.,

The "CPS" prefix you see on those part numbers stands for Cummins Power Systems, the boat's manufacturer. CPS parts were never provisioned, so there are no NSNs. You'll need to order those parts directly from Cummins.

Contact the military sales POC, Keith Higdon, at (410) 762-1429, (410) 590-8731 (FAX) or by mail:

Cummins Power Systems, LLC
Industrial and Military Engine Sales
C/O Territory Manager
1907 Park 100 Drive
Glen Burnie, MD 21061

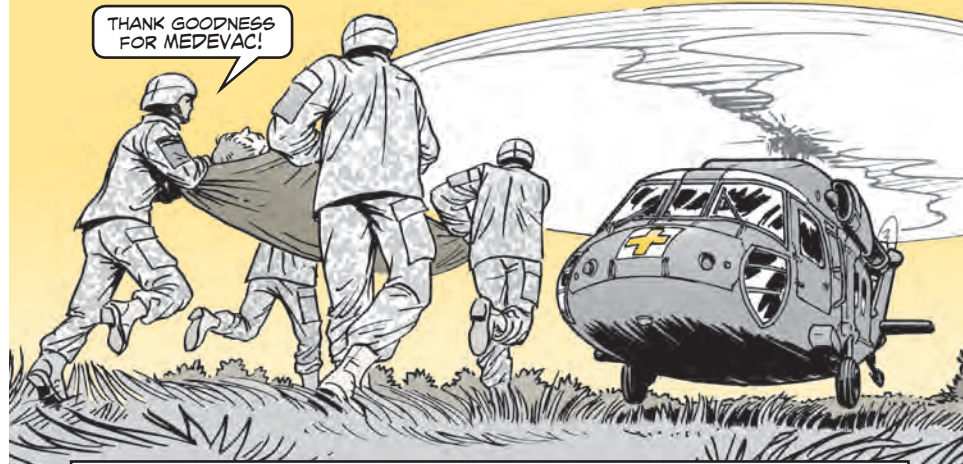
Half-Mast

SMI 5-1940-277-12&P-1					
(2) ER DE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6)	
				DESCRIPTION AND USABLE ON CODES (
				GROUP	
				FIG. 1 STARBOARD ENGINE COOLANT	
				SUCTION HOSES	
				HOSE.....	
				CLAMP, HOSE.....	
				ELBOW.....	
ZZ		15434	CPS-044		
ZZ		15434	CPS-045		
ZZ		15434	CPS-016		

CPS parts must be ordered
directly from manufacturer

MEDEVAC Portal Open For Business

THANK GOODNESS
FOR MEDEVAC!



EVERY TOOL
THAT HELPS
MEDEVAC
HELICOPTERS
HELP INJURED
SOLDIERS IS
AN ADVANTAGE.

AND NOW
THERE'S A
NEW ONE!



The newest tool, the MEDEVAC Enterprise Portal, is now online, ready to serve your needs and help you help others with MEDEVAC issues. The MEDEVAC Enterprise Portal is hosted on AKO by the Medical Evacuation Proponency Directorate (MEPD) using the AKO and Milsuite platforms.

The MEDEVAC Enterprise Portal uses AKO's unlimited file storage to provide MEDEVAC units and team members a designated area for uploading, storing, and sharing files. It also includes information on upcoming MEDEVAC Enterprise meetings and user surveys. You can find the portal by searching for MEDEVAC on AKO or directly at:

<https://www.us.army.mil/suite/page/684746>

MilSuite is a collection of online applications that allow Soldiers to communicate securely throughout the entire DOD. Join the MEDEVAC conversation at:

<https://www.milsuite.mil/book/groups/army-air-medevac-operations>

If you want to know the latest happenings in the MEDEVAC community, check out both portals now. You'll be glad you did.

When using portals and forums, remember that your TMs are the **only** approved authority for maintenance. Always verify portal information with your AMCOM LAR before using it. And get your commander's okay before implementing it.



Handling Aircraft Fire Extinguishers

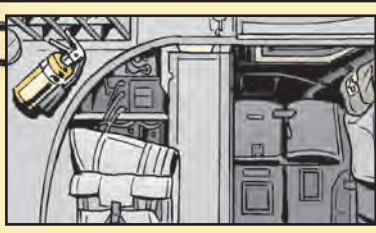
MECHANICS, QUESTIONS KEEP SURFACING ABOUT **HOW MANY** PORTABLE HANDHELD FIRE EXTINGUISHERS (HHFE), NSN 6830-00-555-8837, SHOULD BE ONBOARD YOUR HELICOPTERS.

SO LET'S PUT THE ISSUE TO REST.

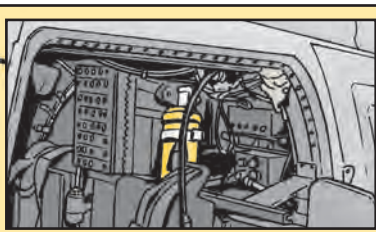
A
Black
Hawk
requires
2



A
Chinook
requires
3



A
Kiowa
Warrior
requires
1



An
Apache
requires
1



MY AIRCRAFT GETS **ONE** FIRE EXTINGUISHER!

ALWAYS CHECK FOR FIRE EXTINGUISHER INFORMATION IN YOUR SPECIFIC AIRCRAFT -10 TMS.

THERE YOU'LL FIND INFORMATION ON **WHERE** FIRE EXTINGUISHERS SHOULD BE MOUNTED.



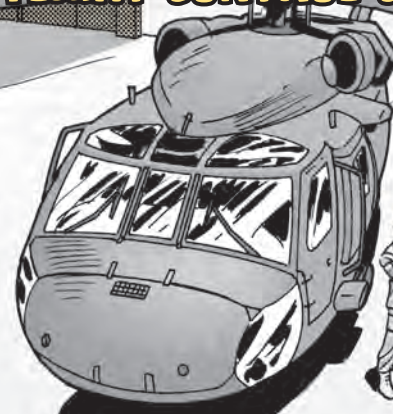
Paragraph 8-6 of AR 95-1, *Flight Regulations*, doesn't tell you where to install fire extinguishers, but only that fire extinguishers are required on aircraft.

The bulk of information you need to know about fire extinguishers is in Para 2-5c,(1) through (5) on Page 2-7 and 2-8 of TM 1-1500-204-23-1, *General Aircraft Maintenance*. Chapter 2 covers fire extinguisher use in hangar and shop operations.

For those who work on or fly AH-64D/E aircraft, the Apache is required to have one authorized fire extinguisher: NSN 4210-01-495-7617.

UH-60M...

RETURN UNSERVICEABLE FLIGHT CONTROL COMPUTERS... NOW!

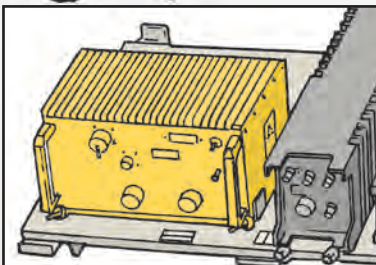


MECHANICS, LISTEN UP!

THE BLACK HAWK HEADSHED NEEDS YOU TO CHECK YOUR SHOPS FOR UNSERVICEABLE FLIGHT CONTROL COMPUTERS (FCCs).

IF YOU HAVE ANY OF THESE BLACK BOXES-NSNs 6615-01-558-8744, 6615-01-576-4325, 6615-01-574-3402, OR 6615-01-599-7108- THAT **NO LONGER WORK**, TURN THEM IN THROUGH THE SUPPLY SYSTEM. A PROGRAM IS UNDERWAY TO **REPAIR** UNSERVICEABLE FCCs.

TURNING IN UNSERVICEABLE ASSETS ALLOWS THE REPAIR PROGRAM TO CONTINUE SPARES SUPPORT... AND THAT KEEPS YOUR AIRCRAFT FROM BEING GROUNDED FOR A LACK OF SERVICEABLE FLIGHT CONTROL COMPUTERS.



Turn in unserviceable FCCs through supply system for repair

ELSE...

OK, JONES! YOU GET FIVE SKRAM BAGS WITH THE INSERT FOR THE CHINOOK!

AND SMITTY, YOU GET THE GO-BAG WITH THE AMMO POUCHES SINCE YOU'RE A CREWMEMBER!



Need Help With the SKRAM?

Dear Sergeant Blade,
We noticed that Air Warrior is issuing the survival kit ready access modular (SKRAM), PN 1005991-1, to deploying aviation units. Does SKRAM replace the aircraft modular survival system (AMSS) and how do we take care of the SKRAM?

SGT J.P.J.

Dear Sergeant J.P.J.,

Those are good questions. I'm sure every ELSE tech wants the scoop on SKRAM, so here it is.

The SKRAM is designed to give your aviation units an additional means to secure survival equipment. It is composed of two bags with shoulder harnesses. The SKRAM for the aircraft has the insert for the mandatory minimum survival items. Each aircraft gets a certain number of bags. UH-60 gets 4, OH-58D gets 2, CH-47F gets 5, AH-64D gets 2 and the LUH gets 2. The inserts include:



- Survival food packets, 3600 calories each - 1
- Chemical lights, green - 2 each
- Chemical lights, IR - 2 each
- Water storage bag, any size - 1
- Survival blanket - 1
- Survival manual - 1
- Muslin bandage - 1
- 550 cord, 50 ft. - 1
- Water purification tablets - 1
- Emergency water packets, 4 oz. - 10 each

SKRAM for aircraft gets mandatory minimum survival insert

A second SKRAM bag is issued to each crew member as a go-bag but does not include the insert. It does include two ammo pouches for M4 magazines.

Make a note, though. Units have the option of exchanging it for the AMSS and there is no NSN for the SKRAM yet. So don't try to order it. All deploying units will be issued the SKRAM equipment directly from Air Warrior. The rest will get the SKRAM when the supply increases.

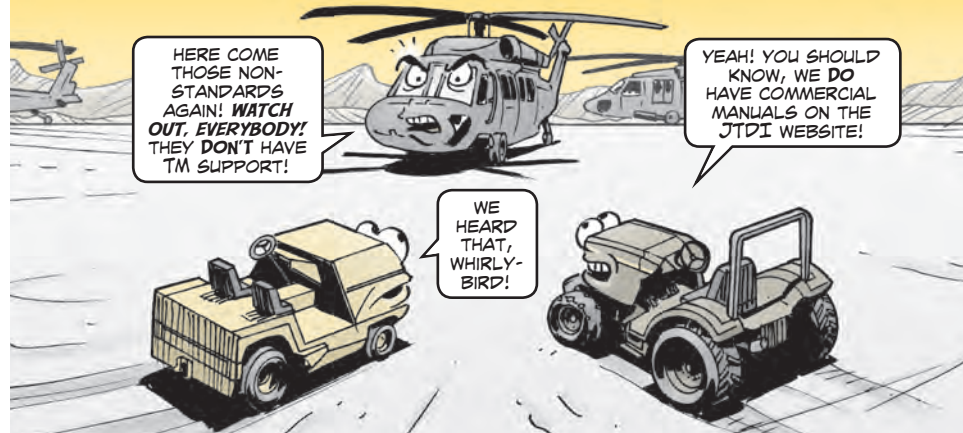
SKRAM go-bag has two M4 ammo pouches but no insert



Until then, all the information you need for proper use and care of the SKRAM is in Chapter 117 of TM 1-1680-377-13&P-7 (Mar 12). Make sure you follow the AMSS PMCS found in the TM for the 360 (+/-6) days periodic inspection for the SKRAM.

"Rotor" Blade

What To Do With Non-Standard AGSE



HERE COME THOSE NON-STANDARDS AGAIN! WATCH OUT, EVERYBODY! THEY DON'T HAVE TM SUPPORT!

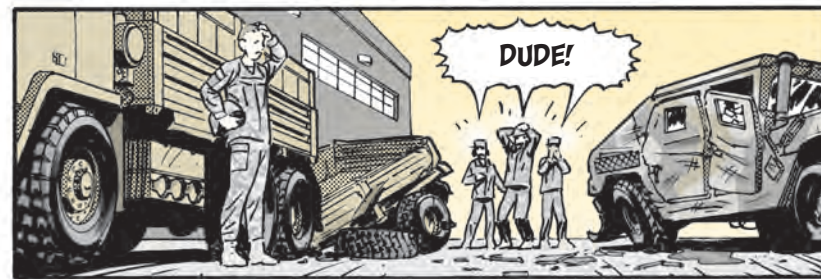
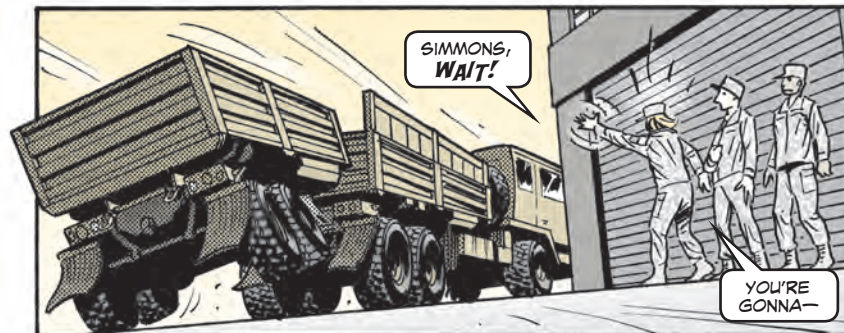
YEAH! YOU SHOULD KNOW, WE DO HAVE COMMERCIAL MANUALS ON THE JTDI WEBSITE!

WE HEARD THAT, WHIRLY-BIRD!

Mechanics, do you have non-standard aviation ground support equipment (AGSE) around the hangar that needs maintenance and repair but has no TM?

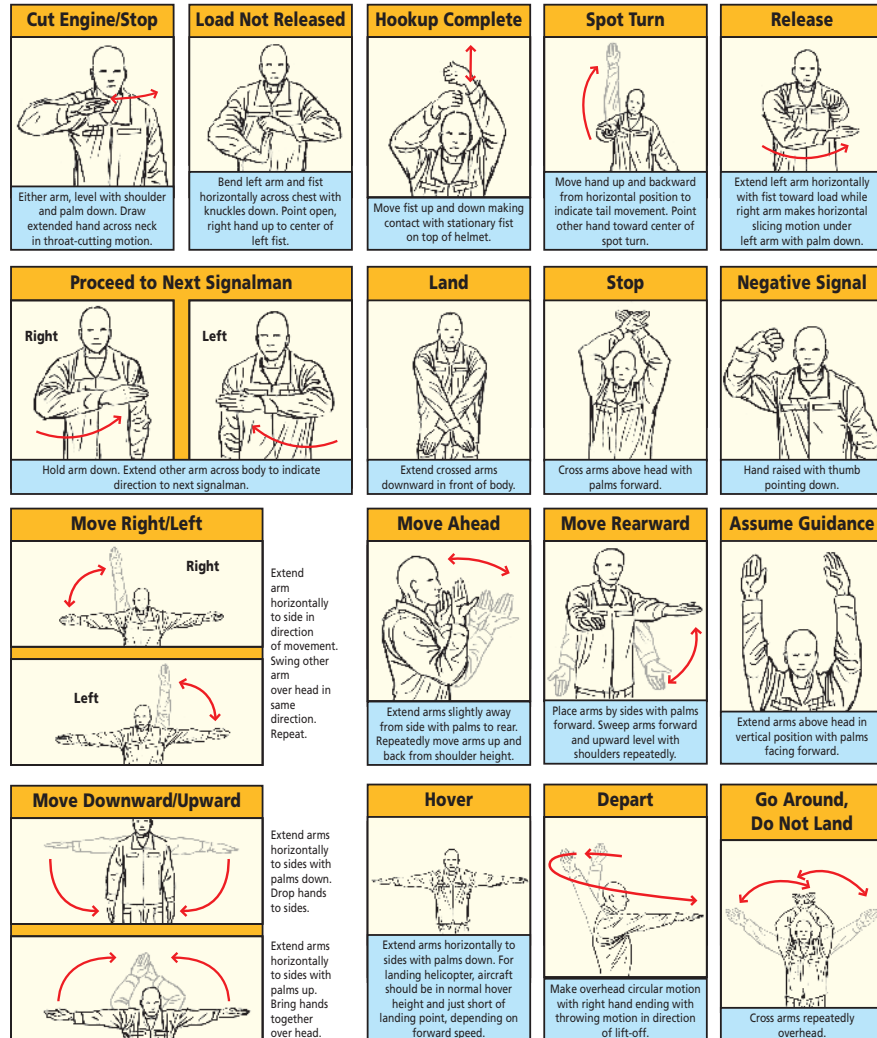
If the answer is yes, here's some information to get non-standard equipment like aircraft wash systems, John Deere tractors, and cranes up to par. Use the commercial manuals that are available on the Joint Technical Data Integration (JTDI) website: <https://upw.jtdi.mil>

It is CAC-enabled. Once there, click on the AGSE tab and then click on Non-Standard AGSE in the middle of the page to view the list of equipment manuals.

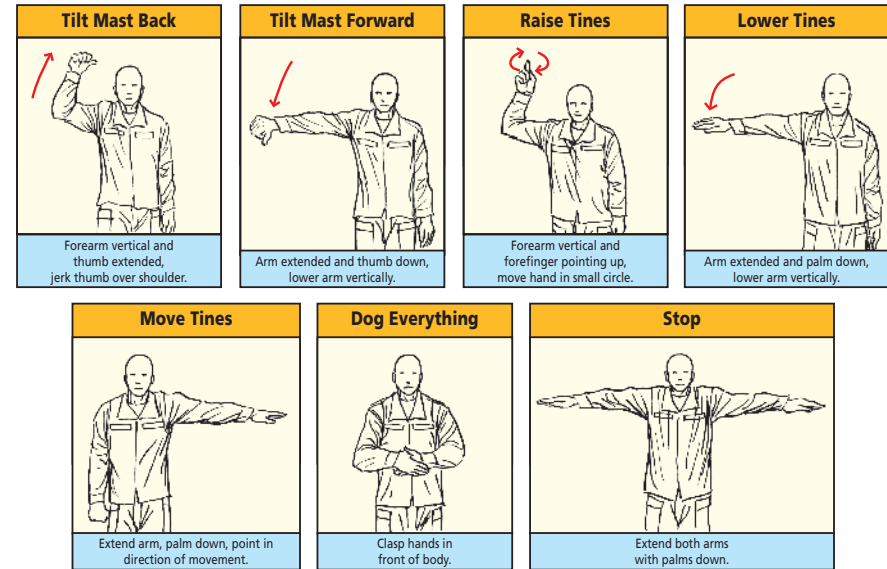


HELICOPTER GROUND GUIDE SIGNALS

Note: When directing a taxiing helicopter, the signalman's position is slightly to the right, in full view of the pilot, at a safe distance of no less than 40 meters (or no closer than 20 meters during slingload operations). The signalman should never stand in front of an armed helicopter.

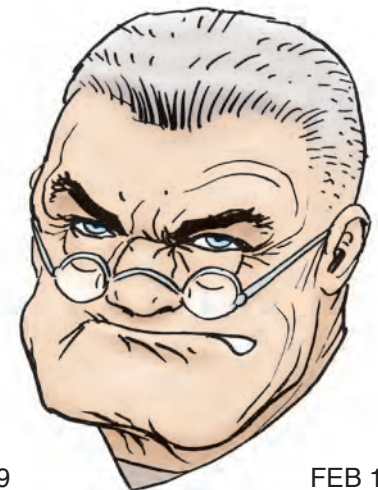


FORKLIFT GROUND GUIDE SIGNALS







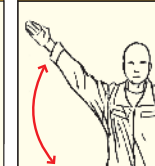
FOR PRINTABLE PDFS OF THE
GROUND GUIDE POSTERS ON
PAGES 28-32, GO TO:
[https://www.logsa.army.mil/
psmag/pslinks.cfm](https://www.logsa.army.mil/psmag/pslinks.cfm)




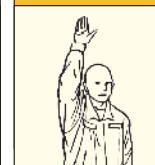
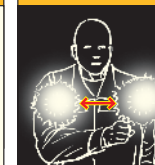
Editor's note: Camouflage patterns, helmets and safety vests have been removed for signal clarity.



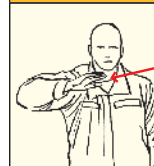
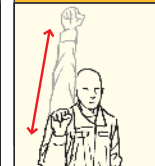




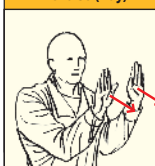

COMBAT AND GROUND



TACTICAL VEHICLE

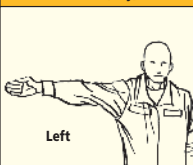
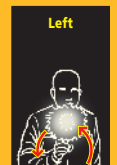
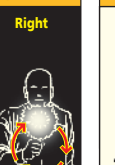

Attention  <p>Extend arm sideways, slightly above horizontal; palm to front; wave arm to and from head several times.</p>	Ready to Move  <p>Extend arm toward person being signaled; then raise arm slightly above horizontal, palm outward.</p>	I Do Not Understand  <p>Raise both arms to horizontal with arms bent. Place both hands across face with palms forward.</p>	Disregard  <p>Raise both arms and cross wrists above head with palms to front.</p>	Mount  <p>Two or three movements upward with open hand, palm uppermost.</p>
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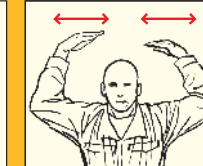
Move Forward  <p>Move hands and forearms back-and-forth with palms toward chest.</p>	Start Engine (Day)  <p>Simulate cranking of engine by moving arm and fist in circular motion at waist level.</p>	Start Engine (Night)  <p>Move light in horizontal figure 8 pattern in front of body.</p>	Stop (Day)  <p>Raise hand upward to full extent of arm, palm to front. Hold position until signal is understood.</p>	Stop (Night)  <p>Move light back-and-forth several times across path of traffic to stop vehicles or turn off engine.</p>
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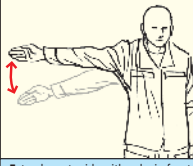


Stop  <p>Clasp hands together, palms facing, at chin level. (Note: Alternate signal to stop tracked vehicles.)</p>	Neutral Steer  <p>Cross wrists at throat; point index finger in direction of steer. Make fist with other hand. (Note: For tracked vehicles.)</p>	Stop Engine  <p>Extend arm parallel to ground, hand open and move arm across body in throat-cutting motion.</p>	Increase Speed (Day)  <p>Raise fist to shoulder level; thrust fist up to full extent of arm and back to shoulder rapidly several times.</p>	Increase Speed (Night)  <p>Move light vertically several times in front of body.</p>
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Advance  <p>Face direction of movement; extend arm to rear; swing arm overhead and forward in direction of movement and hold horizontal with palm down.</p>	Reverse (Day)  <p>Face vehicle with hands to shoulder level & palms forward. Move hands forward & back.</p>	Reverse (Night)  <p>Hold light at shoulder level and blink several times at stationary vehicle.</p>
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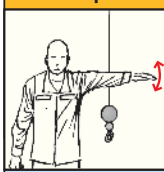
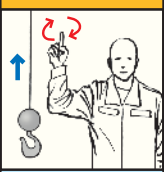


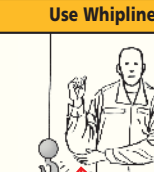
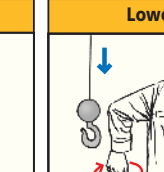
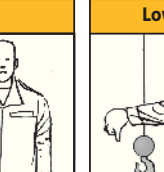
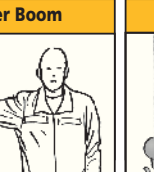
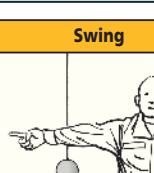
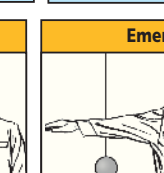
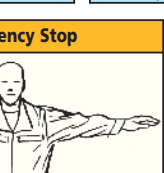
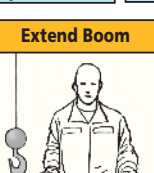
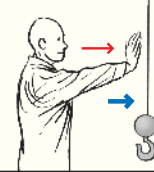
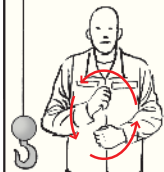
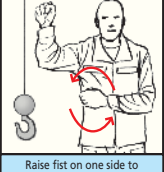


Open Up  <p>Extend arms overhead, palms inward, then slowly lower arms to horizontal position.</p>	Close Up  <p>Extend both arms parallel to the ground with palms up, then move arms upward and inward toward the head.</p>
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Turn (Day)  <p>Extend arm horizontally to side of turn, palm outward.</p>	Turn (Night) <div> <div> Left  </div> <div> Right  </div> </div> <p>Rotate light in 12-18 inch circle in direction of turn.</p>	Dismount  <p>Extend arms and make 2-3 movements up and down with hands open toward ground.</p>
--	---	---

Close Distance and Stop  <p>Face vehicle, forearms extended to front with palms inward and separated (shoulder width). Bring palms slowly together. Vehicle stops when palms touch.</p>	Button Up  <p>Place both hands, one on top of the other, palms down, on top of the helmet.</p>	Unbutton  <p>Use button up signal, then separate hands, moving them to each side in slicing motion. Repeat.</p>
--	---	--

Slow Down (Day)  <p>Extend arm to side with palm in front; wave arm slightly downward several times with arm straight and below horizontal.</p>	Slow Down (Night)  <p>Hold light at shoulder level and blink several times at moving vehicle.</p>	Msg Acknowledged  <p>Hold fist out with thumb up.</p>
--	--	--

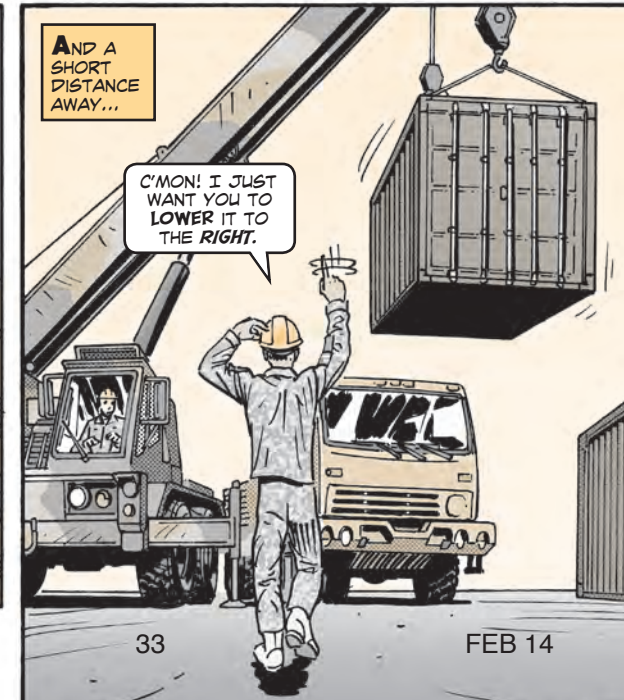
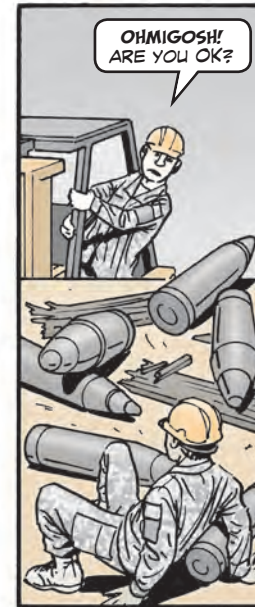
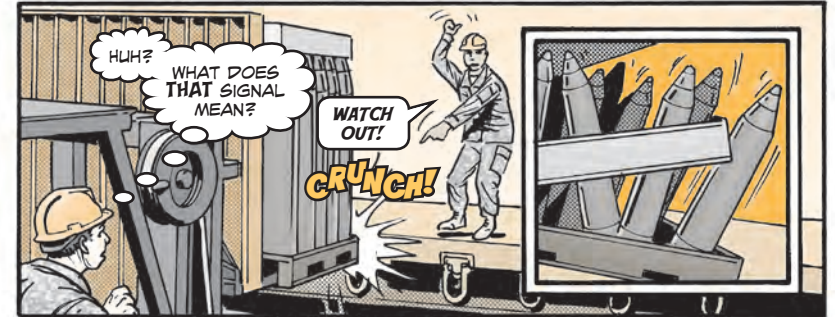
MOBILE CRANE GROUND GUIDE SIGNALS

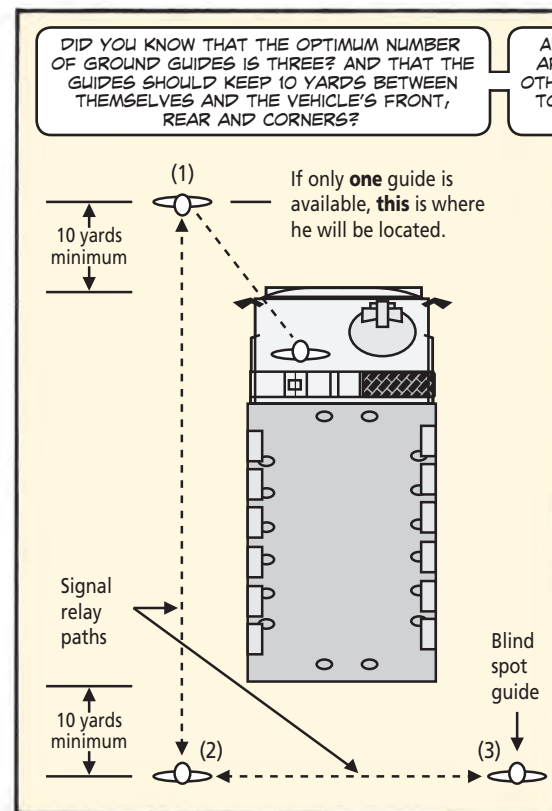
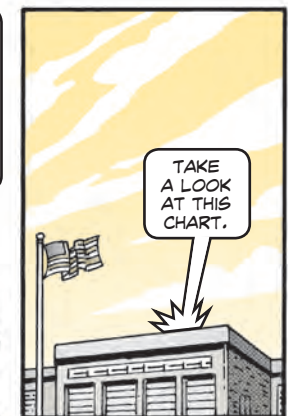
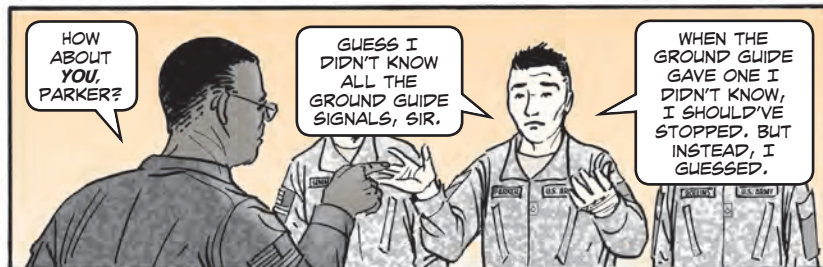
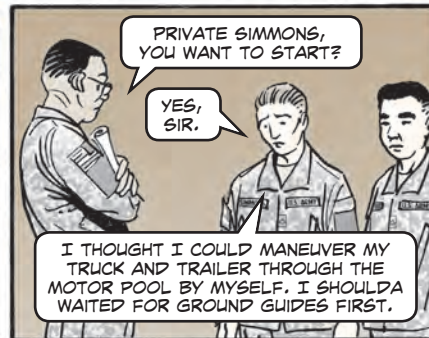
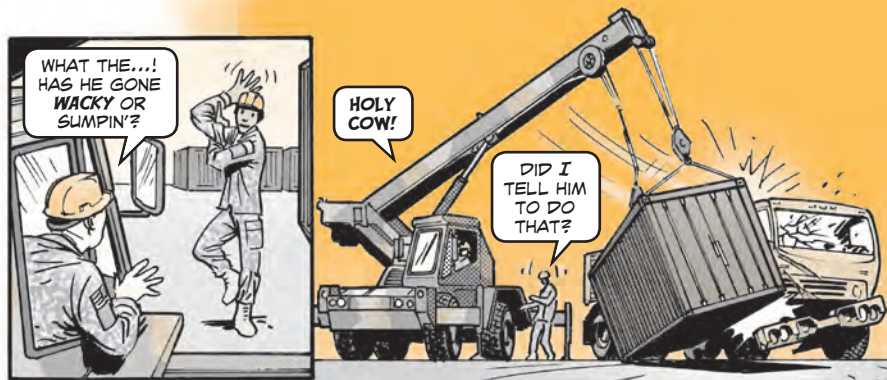
Dog Everything  Clasp hands in front of body.	Stop  With arm extended to the side and palm down, swing arm back and forth.	Hoist  With forearm vertical and forefinger pointing up, move hand in small circles.	Raise Boom  Arm extended, fingers closed and thumb pointing up.	Use Main Hoist  Tap fist on head, then use regular signals.
Use Whipline  Tap elbow with one hand, then use regular signals. (Note: For auxiliary hoist.)	Lower  With arm extended down, forefinger pointing down, move hand in small circles.	Lower Boom  Arm extended, fingers closed and thumb pointing down.	Move Slowly  Use one hand to give any motion signal. Place other hand motionless in front of signaling hand.	
Swing  With arm extended, point with finger in direction of boom swing.	Emergency Stop  Both arms and fingers outstretched horizontally and palms down, swing arms back and forth.	Extend Boom  Both fists in front of body with thumbs pointing out.	Retract Boom  Both fists in front of body with thumbs pointing in.	
Travel  With arm extended forward and hand open and slightly raised, make pushing motion in direction of travel.	Travel (both tracks)  Use both fists in front of body to make circular motion indicating direction of travel. (Note: Crawler cranes only.)	Travel (one track)  Raise fist on one side to indicate track to lock. Travel opposite track in direction of circular motion of other fist in front of body. (Note: Crawler cranes only.)	Raise Boom & Lower Load  Arm extended, thumb pointing up. Other arm bent slightly with forefinger pointing down and rotating in circle.	Lower Boom & Raise Load  Arm extended, thumb pointing down. Other arm bent slightly with forefinger pointing up and rotating in circle.


MEANWHILE, ON THE OTHER SIDE OF THE MOTOR POOL...

OK, PARKER! SLOW AND EASY!

SIGNAL: Tilt mast back





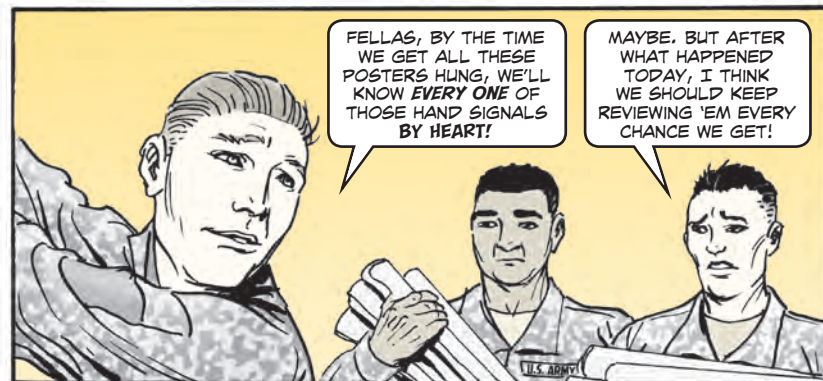
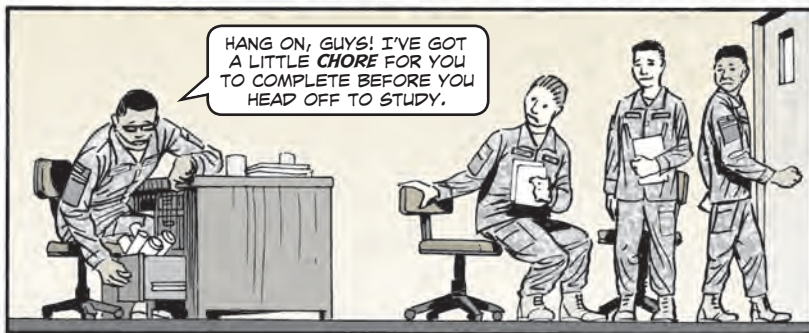
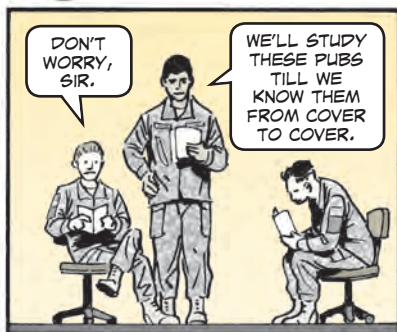
- 
- Never position yourself between the vehicle and another object. An accidental engine surge or loss of vehicle control could put you in danger.
 - Vehicle operators should stop immediately if they lose sight of their ground guide.
 - Voice signals can be misunderstood. Use hand signals only.
 - Never walk backwards while acting as a ground guide.
 - Only the ground guide facing the front of the vehicle gives signals to the driver. All other guides relay signals to the driver's guide (1).



FM 21-60, VISUAL SIGNALS, HAS A LIST OF STANDARDIZED HAND AND ARM SIGNALS USED BY GROUND GUIDES.

TC 21-305-20, MANUAL FOR THE WHEELED VEHICLE OPERATOR, AND TC 21-306, TRACKED COMBAT VEHICLE DRIVER TRAINING, HAVE A LOT OF INFO ON **WHERE, WHEN AND HOW** TO USE GROUND GUIDES.

MAYBE THEY'LL KEEP YOU OUT OF MESSES LIKE THIS IN THE FUTURE.





Pistol Grip Changed in New TM

Dear Half-Mast,
The new M249 TM 9-1005-201-23&P (Apr 13) does not show the same configuration for the pistol grip as the previous version did.

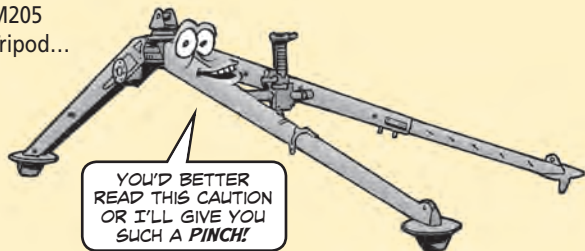
Fig C-7 in the old version showed the pistol grip, NSN 1005-01-306-9442; a pin, NSN 5315-01-309-7192; and the locking plate assembly, NSN 1005-01-131-1911. Fig 8 in the new version shows only the pistol grip. Is this a mistake?

SGT M.S.

Dear Sergeant M.S.,
No, it's not a mistake. The pin and locking plate assembly are no longer part of the pistol grip. You need only the pistol grip.

Pistol grip no longer requires locking plate assembly and pin

Half-Mast



New Tripod TM Adds WARNING

The M205 tripod will soon replace the M3 tripod. Unfortunately, a general safety warning was left out of the M205's TM 9-1005-437-13&P.

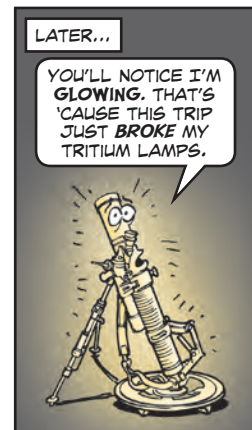
The most recent edition of the TM adds the caution. You can download the TM at:

<https://www.logsa.army.mil/etms/online.cfm>

WARNING PINCH HAZARD

Use caution when placing hand or fingers near tripod pinch points. Keep hand and fingers clear of pinch points when releasing leg(s). The operator must wear gloves during SETUP and BREAKDOWN. Failure to comply may result in pinching bare fingers. Seek medical attention if necessary.

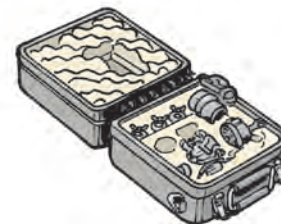
PROTECT COMPONENTS CONTAINING TRITIUM



Mortars use sighting devices that contain radioactive tritium. If one of these devices gets banged around and broken, the tritium can leak out. That poses a health risk if it gets on your skin. Plus, any radiation leakage must be reported to the local radiation safety officer.

So it's in your best interest to do everything possible to protect all components containing tritium. That's not as much of a problem when it comes to the M64A1/M67 sight units and the M58/M59 aiming post lights. They have hard cases you can keep them in when they're not being used.

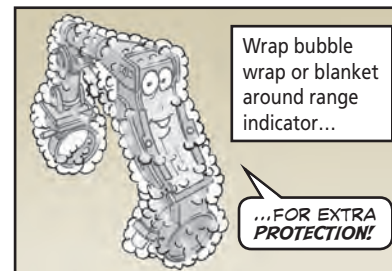
Keep sight units and aiming post light in their cases when not being used



But things get trickier with the 60mm cannon tube. Its range indicator contains four separate tritium lamps. If it's left unprotected and unsecured in the back of the truck, it can roll around and get banged up by other equipment. It doesn't take too big a blow to break one of those lamps.

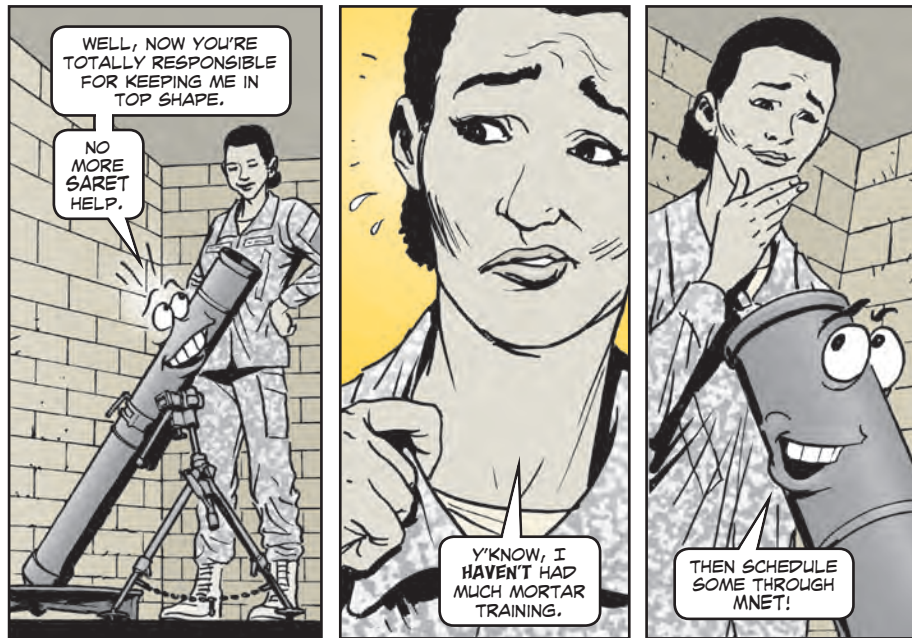
So before you hit the road, make sure the 60mm cannon tube is secured so it can't roll every which way. If possible, give the range indicator extra protection by wrapping it in bubble wrap or a blanket.

If one of the range indicator lamps fails to light up, something is wrong. You need to report it to your radiation safety officer.



...FOR EXTRA PROTECTION!

TRAIN TO MAINTAIN



Mortar units were fortunate for several years to have the small arms readiness evaluation teams (SARET) do much of their maintenance as part of RESET.

That's over. Now units, specifically 91F small arms/artillery repairers, are totally responsible for keeping their mortar systems at 10/20 standards. This includes the M95/M96 mortar fire control system mounted (MFCS-M), the M150/M151 mortar fire control system-dismounted (MFCS-D), and the M326 mortar stowage kit (MSK).

Small arms/artillery repairers need to make sure they receive training for these systems through the Maintainer New Equipment Training (MNET). And once they receive the training, they need to train the unit's other 91Fs. That way the unit won't lose knowledge when a trained 91F is transferred.

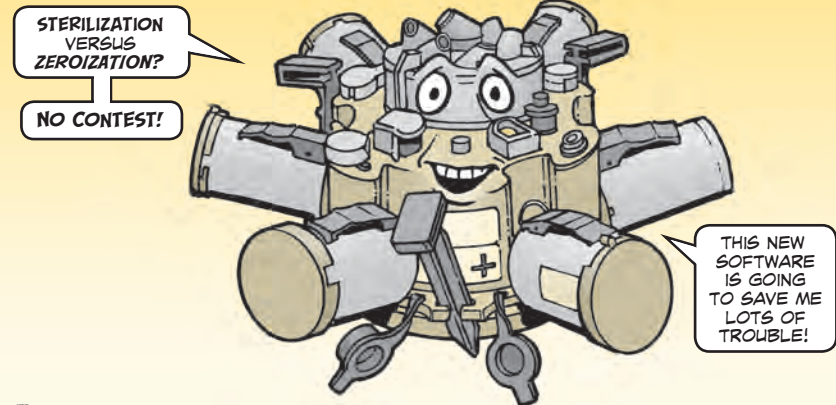
Request training through your chain of command. If you have mortar questions, send an email to: us.army.detroit.tacom.mbx.ilsc-mortar-systems@mail.mil

Or contact one of these TACOM POCs:

Kevin Horn, DSN 786-1219, (586) 282-1219, or email: kevin.m.horn2.civ@mail.mil

Joe Leigh, DSN 786-1223, (586) 282-1223, or email: joseph.t.leigh.civ@mail.mil

NEW SOFTWARE PREVENTS STERILIZATION



The M7 Spider munition dispensing set, NSN 1230-01-536-0128, has new operating software that lets operators prevent sterilization of the munition control unit (MCU) after a tamper event. Before, the MCU had to be replaced by the ammunition supply point after a tamper event.

A tamper event occurs when the MCU detects a tilt or other motion, movement of the power switch, or removal of critical components like the munition or battery cover.

Here's how the new software affects the MCU response:

Tamper type	Old MCU (TS04) Action	New MCU (TS09) Action
Power switch movement	15-minute delay sterilize	15-minute delay. Disable timer begins count-down to zeroization once in sense mode
Tilt (motion)	15-minute delay sterilize	15-minute delay. Disable timer begins count-down to zeroization once in sense mode
Removal of critical components	Sterilize immediately	15-minute delay. Disable timer begins count-down to zeroization once in sense mode

What's the difference between sterilization and zeroization? Sterilization is the immediate destruction of system crypto, COMSEC, TRANSEC, hope set and message authentication key variables, followed by the arming fuse being blown and the batteries drained. Once that happens, the MCU has to go to depot to be reworked.

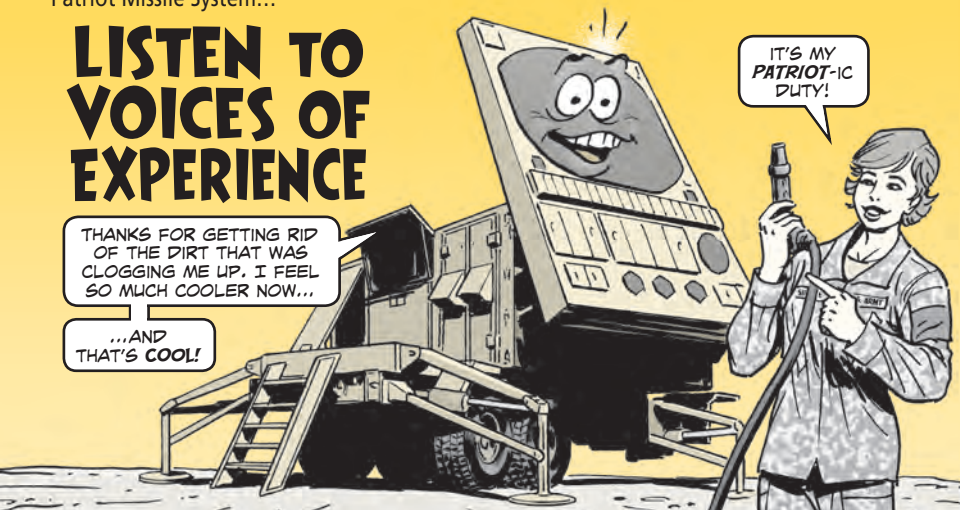
Zeroization, on the other hand, wipes out the same key variables, but once the MCU batteries are removed and reinserted, the MCU is back in business. No trip to depot is necessary.

LISTEN TO VOICES OF EXPERIENCE

THANKS FOR GETTING RID OF THE DIRT THAT WAS CLOGGING ME UP. I FEEL SO MUCH COOLER NOW...

...AND THAT'S COOL!

IT'S MY PATRIOT-IC DUTY!



Dear Editor,

Working with the Patriot here at Ft Bliss, we've come up with a few suggestions that will help other Patrioteers:

Check CLET Daily During Operations

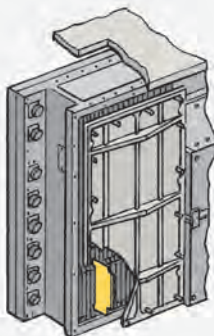
The AN/MPQ-53 radar's cooling liquid electron tube (CLET) can run low on coolant. When that happens, you start getting ECU faults and eventually the CLET motor can burn out. That shuts down the radar transmitter. But don't rely just on the CLET gage. It's not always reliable. Use the rod to check for the proper coolant level. Order coolant with NSN 6810-01-229-9828.

One other CLET tip: The CLET refill pump comes with a nipple. *Don't lose that nipple!* You need it for the pump and it's nearly impossible to get a replacement.

Clean Circuit Cards in Radar and Engagement Control Station

Units are usually good about cleaning inside the radar and the ECS, but they don't open the circuit card drawers and check for dust. If enough dust collects on the circuit cards, they overheat and malfunction. Your intermediate maintenance should use low pressure air (20 psi or less) to blow the cards clean. Check the drawers for dust as part of your regular cleaning procedure. Tell maintenance if you find any.

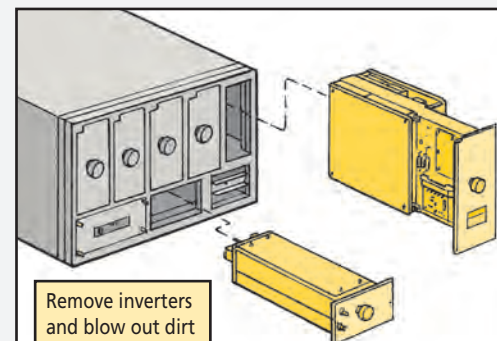
Check circuit cards for dust as part of PMCS



Clean the Radar's Power Inverters

If dust collects behind the inverters, air flow is limited. The inverters overheat and fail. Your intermediate maintenance should remove the inverters and their components every two months in the desert and blow all the racks clean with low-pressure air. Quarterly is often enough elsewhere. Be careful, though, removing inverter cables. They're fragile.

CW2 Michael Smith
SGT Joshua Rogers
SPC Nicholas Griffin
2/43rd ADA
Ft Bliss, TX



Remove inverters and blow out dirt

Editor's note: You are indeed the voices of experience. Thanks for sharing.

PS Mag Live!



Half-Mast on Facebook

<http://www.facebook.com/halfmast.mccanick>

PS Magazine on Facebook

<http://www.facebook.com/pages/PS-Magazine141942029159748>



PS Magazine/Half-Mast on Twitter

<https://www.twitter.com/HalfMastPSMag>



PS Magazine/Half-Mast blogging

<http://halfmastpsmag.wordpress.com>



PS Magazine Home Page

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



PS, the Preventive Maintenance Monthly

USAMC LOGSA (AMXLS-GP)

Bldg 3303

Redstone Arsenal, AL 35898

usarmy.redstone.logsa.mbx.psmag@mail.mil

or half.mast@us.army.mil

I Heard That!



WE'VE GOT
INCOMING
MISSILES!

EH? WHAT'S
THAT? SPEAK
UP, WILL YA'?

"I HEARD
THAT" IS WHAT
YOU WANT YOUR
SENTINEL RADAR
SYSTEM TO SAY IF
ENEMY AIRCRAFT
OR MISSILES ARE
FLYING TOWARD
YOU.

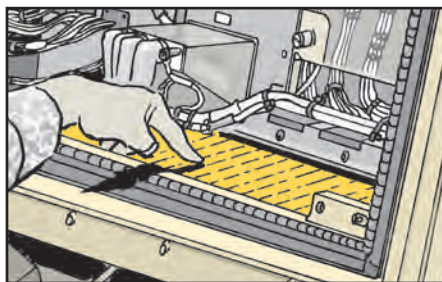
HERE ARE A
FEW WAYS TO
KEEP YOUR
SENTINEL'S
HEARING
SHARP...

CLEAN THOSE
FILTERS...

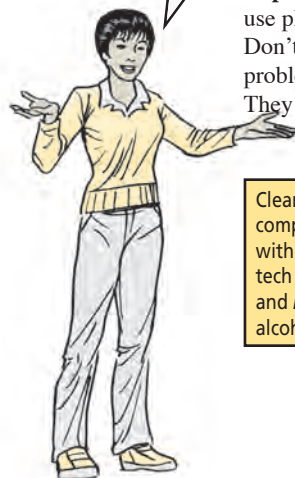


If you're in a combat environment, clean all eight filters every day. If you're not in combat, clean them weekly. Blow them clean with low-pressure air. It's even better to have two sets of filters you can swap out. When you remove one set, wash them out and let them air dry. What happens if you don't keep the filters clean? They clog up and the Sentinel's electronic gear overheats. You start getting faults and components shut down. Just keeping the filters clean is the best way to keep your Sentinel alert.

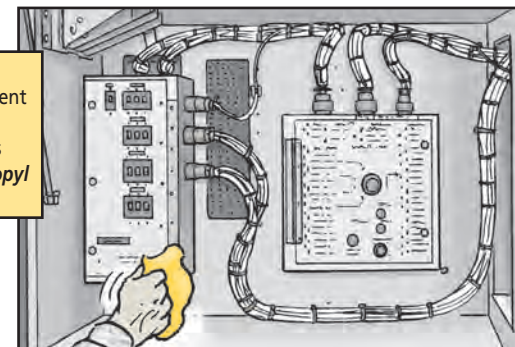
Clean all 8
filters daily
in a combat
environment.
Otherwise,
clean them
weekly.



CLEAN
INSIDE THE
SENTINEL....



Clean out
compartment
with
tech wipes
and *isopropyl*
alcohol



MAKE
SURE ALL
POWER IS
OFF
BEFORE
CLEANING.



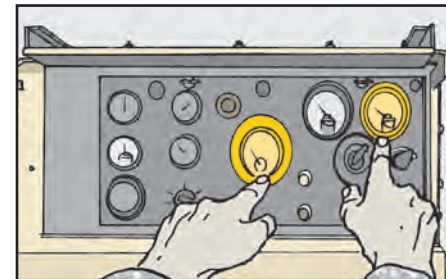
REMEMBER, THE SENTINEL
PRODUCES A HUGE AMOUNT
OF VOLTAGE. YOU CAN BE
COOKED WELL-DONE IF YOU
FORGET TO TURN OFF THE
POWER BEFORE CLEANING.

CHECK THE
GENERATOR
VOLTAGE AND
FREQUENCY AFTER
THE SENTINEL
WARMS UP.

Sometimes the Sentinel's voltage and frequency can fluctuate during startup. After the Sentinel has been running 10 minutes, make sure the voltage is 208 VAC and the frequency is 400 Hz. If voltage and frequency are too high, the circuit cards could be damaged. If they're too low, the Sentinel will show faults.



Check for
208 VAC
and 400 Hz



HOW LONG ARE CANISTERS GOOD FOR?



Dear Half-Mast,
We do inspections of CBRN rooms for the National Guard. Our understanding is that M40/M42 and M50 mask canisters are good for six months in a non-chemical environment and 24 hours in a chemical environment. Is this correct?

SGT A.G.

Dear Sergeant A.G.,

No, canisters are good for much longer. If you're operating where there have been no chemical attacks and no blood agent CK (cyanogen chloride) threat, change the canister annually.

In an area with no confirmed chemical attacks but a CK threat in a climate that's cold and humid or warm and moderately humid, change the canister annually. Change it every 39 weeks when it's hot and dry. Change it every 10 weeks when it's hot and humid.

For units that have been hit by chemical attacks, change the canister every 30 days.

Whenever a Soldier has trouble drawing breath through the canister, it should be changed.

For more information, see FM 3-11.4, Multi-service Tactics, Techniques and Procedures for NBC Protection. If you don't have a copy, go to:

http://armypubs.army.mil/doctrine/Active_FM.html

For the most current information on serviceability of canisters and filters, go to the Joint Acquisition CBRN Knowledge System (JACKS) website:

<https://jacks.jpeocbd.osd.mil/Default.aspx>

Unopened canisters have a 5-year renewable shelf life.



M50 Time Patch

M50 canisters have the same standards as those for the M40. But you should also pay attention to the time patch for the M50 canister. If it turns blue, that signals humidity has degraded the canister filter.



M50 time patch turns blue when humidity has degraded filter

Half-Mast

DON'T BATTER THE BATTERY CARTRIDGE

PRIVATE BROOTISH HAS SOMETHING HE WANTS TO SHARE WITH YOU...

THANKS, MA'AM.

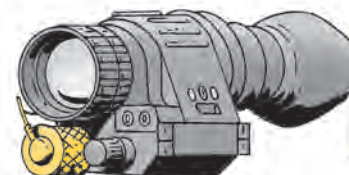


IF YOU HAVE AN AN/PVS-14 MONOCULAR NIGHT VISION DEVICE (MNVD) WITH A DUAL BATTERY HOUSING, TAKE CARE WHEN YOU INSERT THE BATTERY CARTRIDGE, NSN 6160-01-444-1208.

FORCING THE CARTRIDGE INTO PLACE COULD DAMAGE THE HOUSING.

Don't try to insert the cartridge by pushing on it one side at a time. You might break one of the latches inside the housing. Those latches hold the cartridge in place. If you break one, field maintenance will have to replace the battery housing.

You can no longer order the dual battery housing, NSN 5855-01-444-1233. It's a terminal item. Instead, order the single battery housing, NSN 5855-01-523-4058. The dual and single housings are interchangeable.



Order AN/PVS-14 with single battery housing

Remove and Insert the Battery Cartridge

To **remove** the battery cartridge, squeeze the tabs on each side of the cartridge and pull straight out.

While you have the cartridge removed, apply a light coating of lubricant, NSN 9150-01-132-8871, to the O-ring.

To **insert** the battery cartridge, squeeze the tabs on each side of the cartridge. Push it straight into the housing until you feel the latches click into place.

If you're having trouble removing or inserting the cartridge, it might be damaged. Send it to field maintenance.

One other piece of advice: The battery cartridge is small. It often gets lost or misplaced. So, when the cartridge is removed, stow it someplace where it's easy to find.

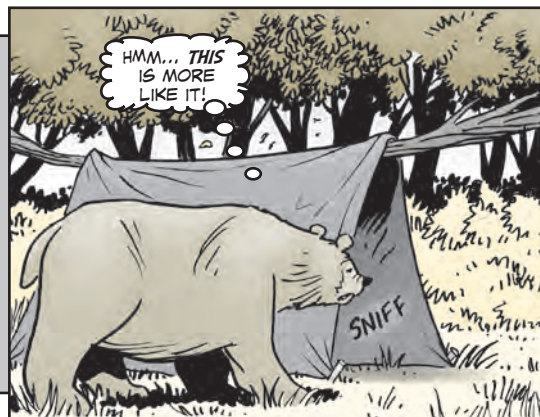
If cartridge is damaged, send it to field maintenance



TENT FACTS, ALL IN ONE PLACE

A FIRST-CLASS TENT
MAKES A WORLD OF
DIFFERENCE WHEN
YOU'RE ROUGHING IT
IN THE FIELD.

IT'S THE
DIFFERENCE
BETWEEN
COMFORT AND
MISERY...



A TENT'S SIZE, FEATURES,
PURPOSE AND DURABILITY
MATTER.



SO, KNOW YOUR
TENT FACTS **BEFORE**
YOU ORDER A TENT.

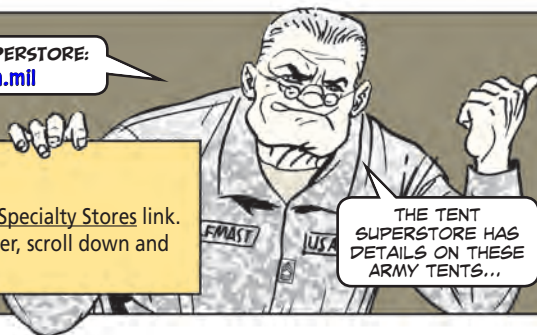
HOW?



VISIT DOD EMAIL'S TENT SUPERSTORE:
<https://dod-email.dia.mil>

1. From the home page, log in.
2. Expand the **SHOP** tab.
3. Scroll down and click on the **Specialty Stores** link.
4. Under Specialty Stores Browser, scroll down and click on **Tent Superstore**.

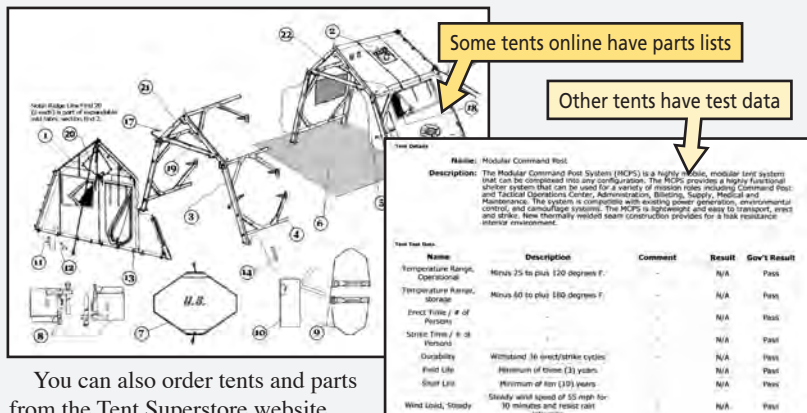
THE TENT
SUPERSTORE HAS
DETAILS ON THESE
ARMY TENTS...



- Extreme cold weather
- Frame type expandable
- Lightweight extreme weather
- Lightweight maintenance enclosure
- Modular command post
- Modular general purpose
- Soldier/crew
- Arctic 10-man
- Extendable modular personnel (TEMPEX)
- Hexagonal lightweight 5-man arctic



The details include NSNs, key features, descriptions, product specifications, photos and TM numbers. Some tents have parts lists with NSNs or drawings with labels. Other tents have test data on temperature range, field and shelf life, wind and snow load, and resistance to rain.



Some tents online have parts lists

Other tents have test data

Test Data

Name: Modular Command Post

Description: The Modular Command Post System (MCP) is a highly mobile, modular tent system that can be composed into any configuration. The MCP provides a highly functional shelter system that can be used for a variety of mission roles including Command Post and Tactical Operations Center, Administration, Blending, Supply, Medical and Maintenance. The system is compatible with existing power generation, environmental control and camouflage systems. The MCP is lightweight and easy to transport, erect and strike. New thermally modified seam construction provides for a leak resistance in adverse environment.

Test Item	Description	Comment	Result	Gov't Result
Temperature Range, Operational	Minus 25 to plus 120 degrees F.		N/A	Pass
Temperature Range, Storage	Minus 50 to plus 180 degrees F.		N/A	Pass
Erect Time / # of Persons			N/A	Pass
Strike Time / # of Persons			N/A	Pass
Durability	Withstood 36 erect/strike cycles		N/A	Pass
Field Life	Maximum of three (3) years		N/A	Pass
Shelf Life	Minimum of five (5) years		N/A	Pass
Wind Load, Steady	Steady wind speed of 35 mph for 30 minutes and resist cast		N/A	Pass

You can also order tents and parts from the Tent Superstore website.

For more information, call Defense Logistics Agency (DLA) Troop Support's James Vitrano at (215) 737-3046. Or email: james.vitrano@dla.mil



Containerized Kitchen...

DO YOU HAVE A CONTAINERIZED KITCHEN (CK), NSN 7360-01-473-3408, WITH TRAILER MODEL XCK20000E1, NSN 2330-01-506-5979?

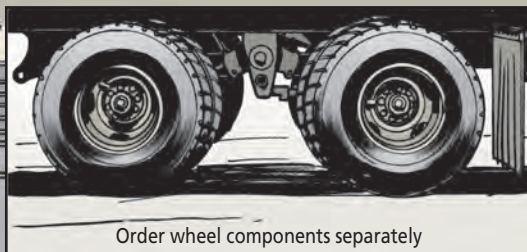
IF YOU DO, LISTEN CAREFULLY.

THE ARMY SUPPLY SYSTEM DOES NOT HAVE A SINGLE PIECE WHEEL AND TIRE ASSEMBLY FOR THE TRAILER.

IF YOU NEED A REPLACEMENT, ORDER THE WHEEL COMPONENTS SEPARATELY. HERE THEY ARE:

Parts for Trailer Wheels

Item	NSN
Wheel	2530-01-487-4711
Tire	2610-01-148-1635
Tire valve	2640-00-555-2842



Order wheel components separately

Laundry Advanced System...

DISCUSSING DETERGENT



- Use only the approved laundry detergent, NSN 7930-01-506-7081, in the LADS. The detergent and the anti-foam compound, NSN 6850-01-506-6533, are found in the Expendable and Durable Items List in WP 0068 of TM 10-3510-221-10 (Jul 08). Order them through normal supply channels.

The detergent is not hazardous to the environment. It won't poison the soil or the ground water. Even so, the water left over from a normal washing cycle may need waste water disposal treatment. Washing oily clothes, for example, might create hazardous waste water. **Always check with your unit's HAZMAT officer about proper disposal of laundry waste water.**

- Use only 1 ounce (one pump of the dispenser) of detergent for each drum-load of laundry. The amount is clearly spelled out on WP 0014-7 of the -10 TM. Make sure you read the CAUTION statements, too.
- Figure out how much detergent and anti-foam compound you'll need to order to support the LADS. The amount needed depends on the number of laundry cycles per day times the number of operating days. Read the Consumables Planning section in WP 0069 of the -10 TM for more details.



Remember

- too much sudsing.
- overflowing of wash and rinse tanks.
- the LADS's still to boil over, leading to clogged pre-filters and coalescing filters, and dirty recycled water.

USING THE **WRONG** DETERGENT OR **TOO MUCH** DETERGENT CAN CAUSE...



BEWARE OF STATIC ELECTRICITY

ANOTHER
DAY IN THE
ELECTRONIC
COMPONENT
AFTERLIFE...

A NEW ARRIVAL,
EH? WHAT'S YOUR
STORY, FELLA?



IT'S THE
STRANGEST THING...
THERE I WAS...
ENJOYING LIFE AS
A COMPONENT IN A
LAUNDRY ADVANCED
SYSTEM...

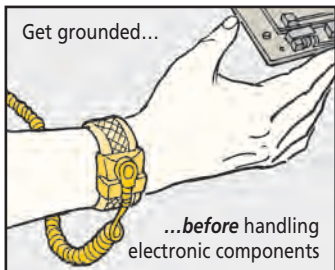
...WHEN A SOLDIER
PICKED ME UP...
A-AND HE WASN'T
WEARING A GROUND
STRAP!

The laundry advanced system (LADS) has a lot of electronic components. Problem is, some of them are getting damaged needlessly.

Electronic components are sensitive to electrostatic discharge (ESD)—in other words, the discharge of static electricity. ESD can degrade or destroy transistors, resistors and integrated circuits in the LADS. ESD is especially common in areas of extreme, dry heat—places such as deserts, where humidity is very low.

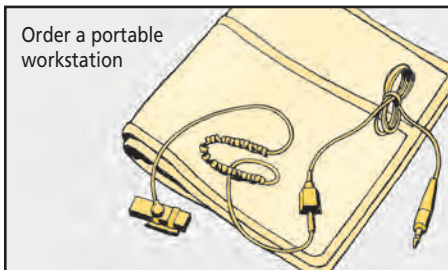
The damage comes when you troubleshoot the LADS. Some of you handle electronics without proper grounding. When that happens, static electricity on your body discharges. You don't feel the discharge or see the damage—but it's there. A spark of as little as 30 volts can destroy electronics.

Get grounded...



...before handling
electronic components

Order a portable
workstation



Protect electronic components by handling them only at a static-safe workstation. NSN 5920-01-250-4237 brings you a portable work surface, a common point ground system and a wrist strap.

For more information, see the ESD article on Pages 48-54 of PS 719 (Oct 12). You'll find it on the *PS Magazine* website:

<https://www.logsa.army.mil/psmag/archives/PS2012/719/719-48-54.pdf>

The article discusses grounding, resistance checks and protecting sensitive electronics from ESD. It also contains NSNs for ordering static-safe workstations, portable work surfaces, field service kits, anti-static bubble wrap and cushion pouches.

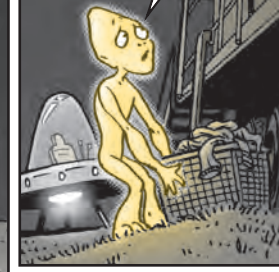
AIR LINE CRACKS

AT
LAST!

AFTER SEARCHING
THIS PLANET FOR
SEVEN KEEPS, I'VE
FINALLY FOUND A LAUNDRY
SYSTEM ADVANCED ENOUGH
FOR ME TO USE TO WASH
MY DIRTY SKIDHALTERS.



FLIZZIK! THIS IS NO
GOOD! THE RUBBER
LINES ARE CRACKED
AND HAVEN'T BEEN
REPLACED!



Over time, intense heat and sunlight can damage the air line hoses on the laundry advanced system (LADS). As the rubber or plastic dries out and breaks down, the lines crack and tear easily.

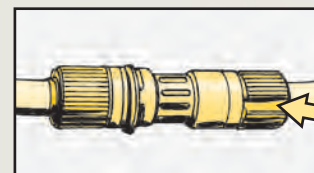
That's why it's important to have replacement parts on hand for your LADS—especially if you're deployed. You'll need bulk air line hose, quick disconnects and push lock plugs. All items have a 1/4-in outer diameter. Here are the NSNs:

Item	NSN	Suggested amount
Air line hose, rubber	4720-01-481-4070	100 feet
Air line hose, plastic	4720-01-481-4083	100 feet
Quick disconnects	4730-01-481-4262	20
Push lock plugs	4730-01-481-1661	10



Keep bulk
air line hose
on hand

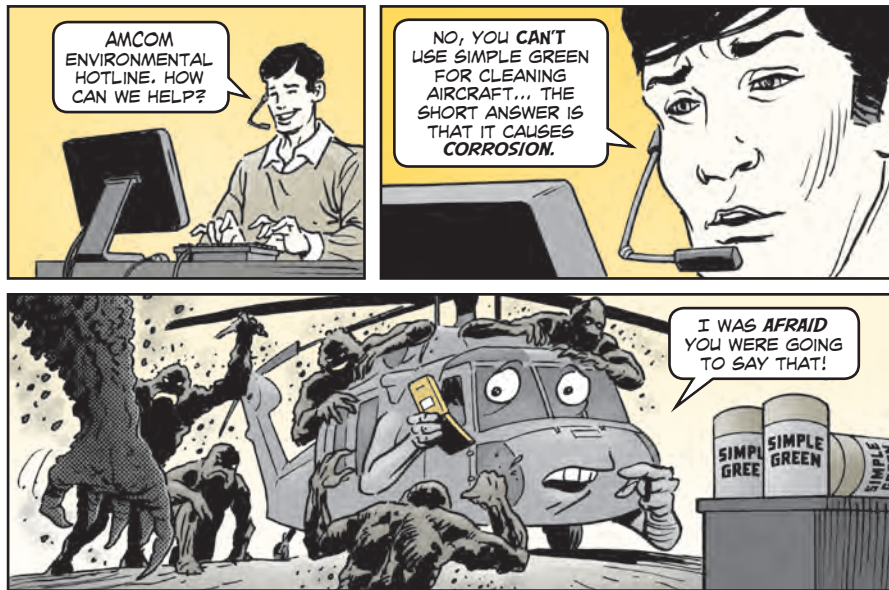
The quick disconnects especially come in handy. Use them for a fast, easy fix on air hoses. Just cut away the damaged part of the hose and attach the quick disconnect between both cut ends.



Use quick
disconnects
for an
easy fix

All LADS hoses are labeled for easy identification. If you trim a piece of hose containing the ID label, keep the label and attach it to the repaired hose. Or you can write the ID information on plastic tape with an indelible marker. Then apply the tape to the repaired hose.

AMCOM's Environmental Hotline Fields Your FAQs



Do you have questions about maintenance services for aviation platforms and missile support systems?

If the answer is yes, you've got a red phone connected right to the top. AMCOM G-4 has a hotline that gives real-time support to aviation and missile personnel. Call if you have:

- environmental questions or concerns.
- problems with AMCOM weapons systems acquisition.
- maintenance issues at the depot or field levels.

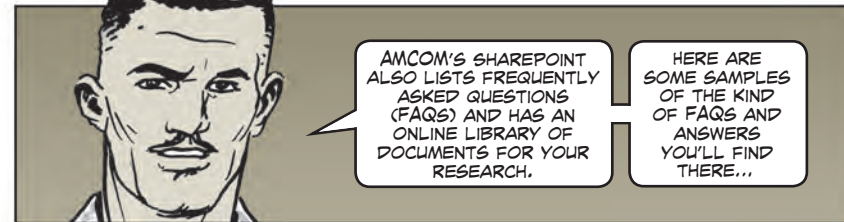
AMCOM hotline answers and advice are good to go because they are reviewed and approved by subject matter experts at the Aviation and Missile Research Development Center.

No question is too small. If the topic falls outside their lane, they will redirect you to the correct POC. All requests are logged and assigned a ticket number. A response should come within 72 hours.

You can call DSN 897-1711, (256) 313-1711, or email:

usarmy.amcom-environmental@mail.mil

Online Option



Why does the Army have so many Chemical Agent Resistant Coatings (CARC) in the specifications?



THESE TOPCOATS (REFERENCE MIL-DTL-53072E) WERE REFORMULATED FOR IMPROVED PERFORMANCE AND COMPLIANCE WITH ENVIRONMENTAL LAWS (NO HAZARDOUS AIR POLLUTANTS [HAPS] AND VARYING AMOUNTS OF VOLATILE ORGANIC COMPOUNDS [VOCs], DEPENDING ON TYPE).

ENVIRONMENTAL REGULATIONS AND AMBIENT CONDITIONS VARY THROUGHOUT THE US, SO IT'S IMPORTANT THAT YOU SELECT THE RIGHT CARC TOPCOAT FOR YOUR REGION.

FOR HELP IN MAKING THE RIGHT CARC TOPCOAT SELECTION, CONTACT THE AMCOM ENVIRONMENTAL HOTLINE.

Does the denatured alcohol I'm using for cleaning aircraft meet environmental regulations?



IF YOU ARE PERFORMING AIRCRAFT MAINTENANCE AND ARE SUBJECT TO CERTAIN EPA REGULATIONS, THE DENATURED ALCOHOL YOU'RE USING FOR HAND-WIPE CLEANING MAY OR MAY NOT BE COMPLIANT.

ACCORDING TO EPA REGULATIONS, HAND WIPE CLEANERS MUST **NOT** HAVE A VAPOR PRESSURE EXCEEDING 45MM/HG. THIS IS USUALLY SPECIFIED IN THE MATERIAL SAFETY DATA SHEET (MSDS).

To check if you're using the correct product and if you're in compliance, contact the AMCOM Environmental Hotline for guidance. They can also recommend other compliant products that are approved for hand-wipe cleaning.

For more info about aviation and missile hand wipe cleaners, also see Pages 22-23 in PS 730: <https://www.logsa.army.mil/psmag/archives/PS2013/730/730-22-23.pdf>

For more FAQs and answers, check out the AMCOM SharePoint portal at:

<https://amcomsp.redstone.army.mil/default.aspx>

Or visit Half-Mast on Facebook at: <http://www.facebook.com/halfmast.mccanick>

Check ETMs Online for TM Updates

HMM... THIS DOESN'T LOOK RIGHT FOR SOME REASON.

YEP, BUDDY, I KNOW THAT'S CHANGED. YOU NEED TO CHECK LOGSA'S ETMS ONLINE FOR THE LATEST WORD ON HOW TO KEEP ME ROLLING.

MANY ARMY EQUIPMENT TMS HAVE BEEN CHANGED OR UPDATED, BUT THE ARMY LACKS FUNDS TO PRINT PAPER COPIES.

SO EVEN IF YOUR UNIT'S 12-SERIES FORMS ARE UP-TO-DATE, YOU MAY **NOT** HAVE THE LATEST HARD COPY CHANGES OR REVISIONS.

THAT MEANS **SOME** OF YOU MIGHT BE USING **OBSOLETE TMS**.

Y'KNOW... I THINK YOU'RE RIGHT. THESE TMS **DO** LOOK OUTDATED!

YOU CAN STILL GET THE LATEST WORD ON YOUR EQUIPMENT.

ELECTRONIC TECHNICAL MANUALS (ETMS) ARE POSTED AT THE LOGISTICS SUPPORT ACTIVITY'S (LOGSA) WEBSITE. HERE'S HOW TO FIND OUT IF YOUR TMS HAVE BEEN UPDATED. GO TO:
<https://www.logsa.army.mil/etms>

ENTER YOUR TM NUMBER AND COMPARE YOUR TM'S DATE TO THE ONE SHOWN ON THE WEBSITE. IF THEY DON'T MATCH, DOWNLOAD THE NEWER VERSION.

JUST ENTER YOUR PUB NUMBER IN THE PUB NUMBER FIELD.

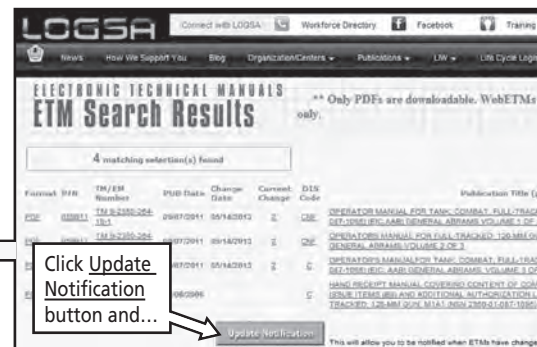
ON THE NEXT SCREEN, CLICK THE UPDATE NOTIFICATION BUTTON NEAR THE BOTTOM OF THE SCREEN.

ON THE NEXT SCREEN, SELECT YOUR PUB(S) AND FILL IN YOUR EMAIL ADDRESS.

CLICK CONTINUE. YOUR SUBSCRIPTION WILL BE CONFIRMED, AND YOU WILL BE NOTIFIED WHEN THERE IS A CHANGE TO YOUR PUB IN ETMS ONLINE.

IF YOU HAVE QUESTIONS OR NEED HELP FINDING A SPECIFIC PUB, CONTACT LOGSA'S TECH PUBS ETM CUSTOMER SERVICE AT (800) 270-1409, OR EMAIL:

usarmy.redstone.logsa.mbx.logetm@mail.mil



Click Update Notification button and...

...enter your email address and select pubs you want to subscribe to



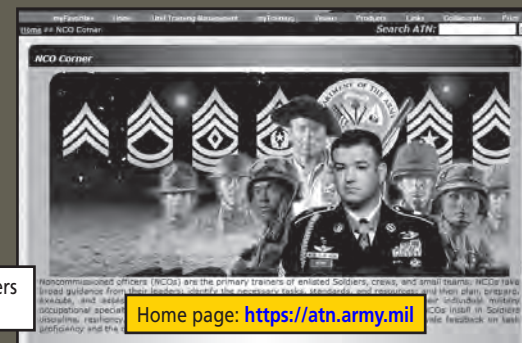
1-Stop NCO Training Shop

The Army Training Network (ATN) added a new feature, **NCO Corner**, to make it easier to find info on specific NCO subjects of interest. It's a "one-stop shop" covering everything from Army training doctrine to the many resources that help NCOs train.

ATN's **NCO Corner** was built by NCOs for NCOs. They want to hear from you. Send Army training-related topics or suggest focus areas that you want to see on the **NCO Corner**. Submit ideas at:

https://atn.army.mil/fm_askTrainer.aspx

ATN's **NCO Corner** covers wide range of topics

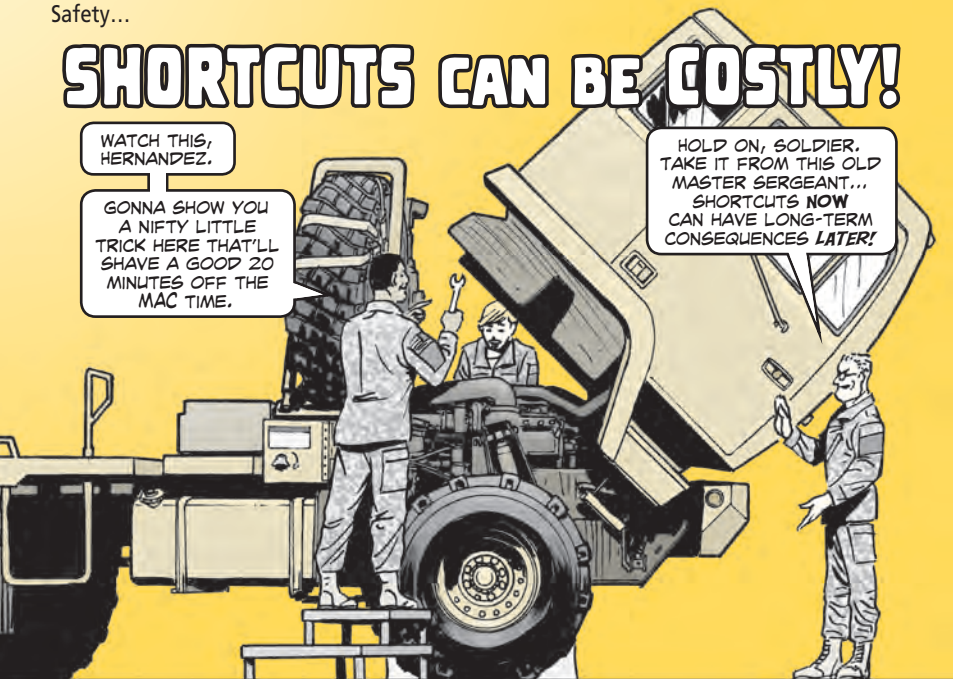


SHORTCUTS CAN BE COSTLY!

WATCH THIS, HERNANDEZ.

GONNA SHOW YOU A NIFTY LITTLE TRICK HERE THAT'LL SHAVE A GOOD 20 MINUTES OFF THE MAC TIME.

HOLD ON, SOLDIER. TAKE IT FROM THIS OLD MASTER SERGEANT... SHORTCUTS **NOW** CAN HAVE LONG-TERM CONSEQUENCES **LATER!**



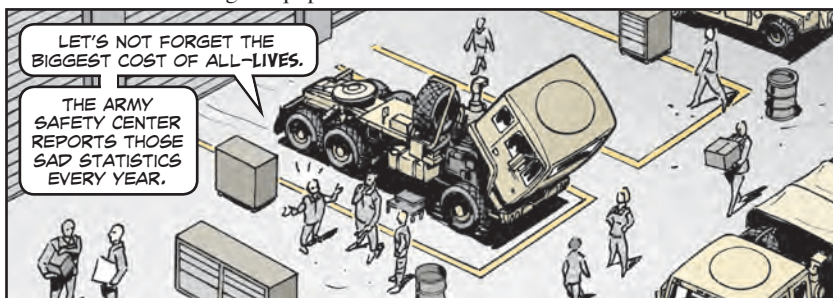
It's true that when it comes to maintenance, there's often more work that needs to be done than there is time to do it. That's when it becomes tempting to cut corners.

But motor pools and maintenance bays are magnets for risk. There are chemicals, heavy equipment, sharp tools and other hazards around.

When you take safety shortcuts or ignore safety procedures, you risk stumbling, literally and figuratively. That's because trying to save a pinch of time now can cost lots more in the long run, especially when you add up potential injury costs, lost work hours and damaged equipment.

LET'S NOT FORGET THE BIGGEST COST OF ALL—LIVES.

THE ARMY SAFETY CENTER REPORTS THOSE SAD STATISTICS EVERY YEAR.



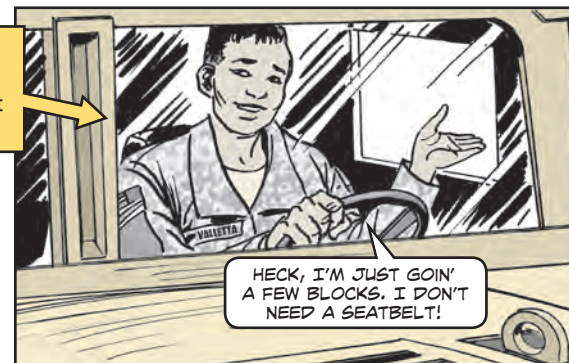
THE KEY TO STAYING ON SAFETY'S STRAIGHT PATH IS RECOGNIZING AND AVOIDING RISKY SHORTCUTS IN THE FIRST PLACE. HERE ARE SOME EXAMPLES...

- Using chemicals without reading and following label precautions and material safety data sheet (MSDS) instructions.

- Not putting on proper respiratory protection when entering an area where hazardous chemicals or substances are being used.

- Not wearing your seatbelt when riding in a vehicle, even if it's just for a short trip on post.

- Using the wrong tool for a job. Maybe it's because you don't have the time or patience to hunt down the right one, but the reason doesn't matter if things go wrong.



But the biggest consequence of shortcuts may be the chance that you'll pass on unsafe habits to new Soldiers, even unknowingly. You may be unaware of the danger until someone gets hurt or killed using a shortcut they saw you use.

Good safety practices are everyone's responsibility and education is the key. For more info, including materials and tools on starting, improving or sustaining your unit's safety program, visit the US Army Combat Readiness/ Safety Center website:

<https://safety.army.mil>

I'M NOT SURE
WHAT HE'S
SIGNALING TO US,
CONNIE...
BUT I BET I CAN
FIND IT IN THIS
ISSUE OF *PS*!

Connie's POST SCRIPTS

HET Engine Belt NSN Change

Get the HET M1070A1's primary engine belt with NSN 3030-01-617-1203. The old NSN, 3030-01-598-2522, is a terminal item. Make a note until the IETM, EM 0310, is updated.

MSG HALF-MAST STARS IN OPERATIONAL ENERGY VIDEO

Everything you've wanted to know about operational energy in the Army is here in a nutshell. *PS Magazine's* MSG Half-Mast comes to life in a HQDA G-4 video that debuted at the 2013 AUSA conference. View it on milTube:

<https://www.milsuite.mil/video/watch/newvideo/5326>

DOLs Now LRCs

As part of the Army's changing logistics systems and a transfer to AMC management, the Directorates of Logistics (DOLs) are now known as Logistics Readiness Centers (LRCs). The Army's 73 LRCs serve Soldiers at their home stations with installation supply, maintenance and transportation support. LRCs cover food service, ammunition supply, clothing issue facilities and initial issue points, hazardous material, bulk fuel, personal property/household goods, passenger travel, non-tactical vehicles, rail and garrison equipment.

GCSS-Army Reminder

Remember to check the GCSS-Army website for alerts, updated fielding and training schedules and other important info. Visit:

<https://gcss.army.mil/>

Or sign up to get automatic notifications at:
<https://gcss.army.mil/Support/register.aspx>

M989A1 HEMAT Tow Bar Extension Kit

Improve the turning radius of your M989A1 HEMAT trailer with a new tow bar extension kit, NSN 2540-01-460-9082. If you need to replace any of the hardware that comes with the kit, use these NSNs and units of issue:

- Nut, NSN 5310-00-067-6356, 1 ea
- Flat washer, NSN 5310-00-809-8533, 100 ea
- Screw, NSN 5305-00-947-4364, 1 ea

M1074A1/M1075A1 PLS Service Kits

Get the semiannual service kit for your M1074A1/M1075A1 palletized loading system (PLS) with NSN 4910-01-621-1957. The annual kit comes with NSN 4910-01-621-1667 and includes the semiannual kit.

MRAP M-ATV Blower Motor NSNs

There are three blower motors available for the M-ATV's HVAC system. But only one—the 24V front blower motor, NSN 2930-01-576-4596 (PN 2KK135)—is listed in TM 9-2355-335-24P (Feb 13). Until they're added to Fig 203 of the TM, get the 12V front blower motor with NSN 6105-01-520-5889 (PN RD-5-9194-0P) and the 24V rear blower motor with NSN 6105-01-517-5739 (PN RD-3-7383-1P).

FREE Ensemble Update

Page 23 of PS 715 (Jun 12) said the fire resistant environmental ensemble (FREE) would be available through the supply system sometime in late 2012 or early 2013. That's changed. The FREE is still not available for general issue. It will be issued only to deploying Soldiers. We'll let you know when the FREE is available for general issue, so stay tuned.

HEMTT -A4 C-Kit ARMOR BLAST SEAT NSNs

Do the HEMTT -A4 trucks in your unit come equipped with the C-Kit? Then when it's time to replace the blast seats, use NSN 2520-01-598-1327 to get the left-hand seat, and NSN 2540-01-598-1461 for the right-hand seat. Both NSNs include the lower mounting brackets. If you have C-Kit Armor in stock, don't remove the seats from the kit.

M7 FRS WATER PUMP NSN

Get a new water pump for your M7 forward repair system (FRS) with NSN 2930-01-492-6763. It replaces NSN 2930-01-467-6421, which is listed as Item 1 in Fig 52 of TM 9-4940-568-24P (Jan 08, w/Ch 1, Jul 11). That NSN is a terminal item.

M915A5 Tire and Wheel Assembly

The M915A5 tractor truck's tire and wheel assembly comes with NSN 2530-01-615-1443. Make a note until this NSN is added to TM 9-2320-426-13&P in IETM EM 0308.

CHARGER FOR VRLA BATTERIES

Prevent early valve-regulated lead-acid (VRLA) battery failure and unnecessary replacement costs for your unit. Use one of these battery chargers to charge and precondition batteries:

Battery Charger	NSN
Pro-4HD	6130-01-500-3401
Pulse Charger World Version Plus	6130-01-477-4703
Pallet	6130-01-532-7711
Associated PP-1660 Type F	6140-01-518-7866

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 345239, requirements for the TB 43-PS-Series.

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

ARMY SAFE IS ARMY STRONG

ARMY SAFE
AND ARMY
STRONG ARE
TWO SIDES
OF THE
SAME COIN!



SO CHECK OUT THE US ARMY
COMBAT READINESS/SAFETY
CENTER WEBSITE...

ARMY
SAFE

...FOR SAFETY-
RELATED TOOLS
AND PROGRAMS!

ARMY
STRONG

<https://safety.army.mil>