

Issue 529

PS

December
1996

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-529

Be cool—
share a copy
this Yule

HEY,
AREN'T YOU
GUYS A LITTLE
EARLY?

SORRY,
CONNIE, BUT
THE BOSS NEEDS
AN INDEX TO FIND
SLEIGH REPAIR
PARTS NSNs.

DECEMBER

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TELL
SANTA TO
SEE PAGE
27.

DID
SHE SAY
WE WERE
"LITTLE"?

Approved for
Public Release;
Distribution Is
Unlimited

To: ALL
MAINTENANCE-
MINDED
SOLDIERS

Five Steps to Good PM

Walking that extra PM mile—it's the difference between a *good PM program* and one that *just squeaks by*. An old proverb says, "a journey of a thousand miles starts with the first step," so...

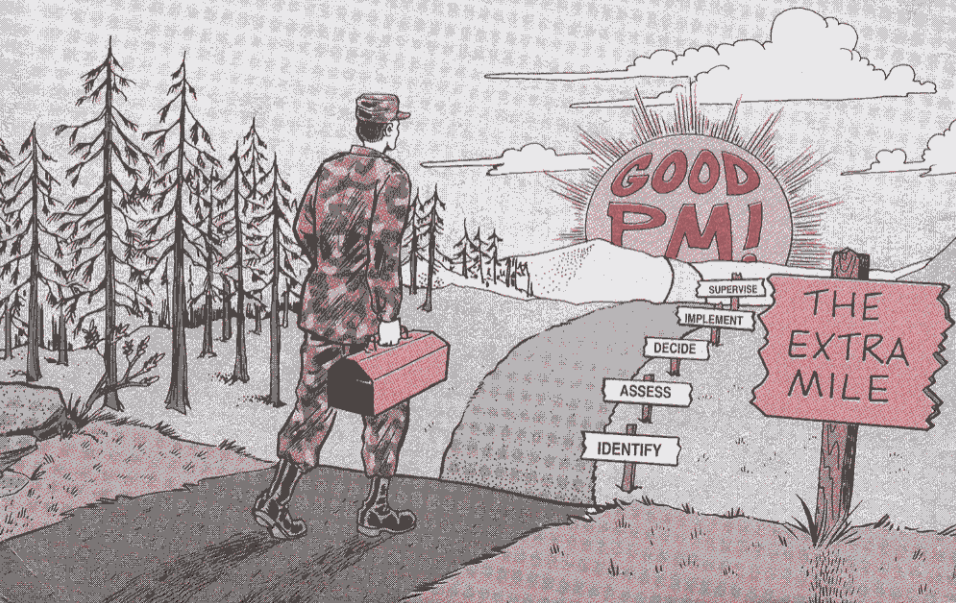
Step one, **identify**. Every piece of equipment has one or two maintenance trouble areas. These are the areas where water accumulates; that are out-of-sight and out-of-mind; that are hard to reach and thus, neglected; where preventive maintenance does not get done or does not get done as often as it should. Identify these areas.

Step two, **assess**. Take a close look at your PM program. Is all PM being done right? Is it being done too often in one area and not enough in another area? Assess the strengths and weaknesses of your PM program. Eliminate the weaknesses.

Step three, **decide**. Once you have identified and assessed, it's time to make some decisions. Where can I best use my personnel in my preventive maintenance plan? How much time can I devote to PM in any given area?

Step four, **implement**. Getting started—implementing your program—is the hardest. Someone always has an excuse for why something can't be done. Someone always wants you to be doing something else.

Step five, **supervise**. The extra-mile PM program will wither on the vine if not supervised. Supervision is the key to keeping a good program well.





THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-529, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user.

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

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

Or E-mail to:

psmag@logsa.army.mil

By Order of the Secretary of the Army:

DENNIS J. REIMER

General, United States Army Chief of Staff

Official:

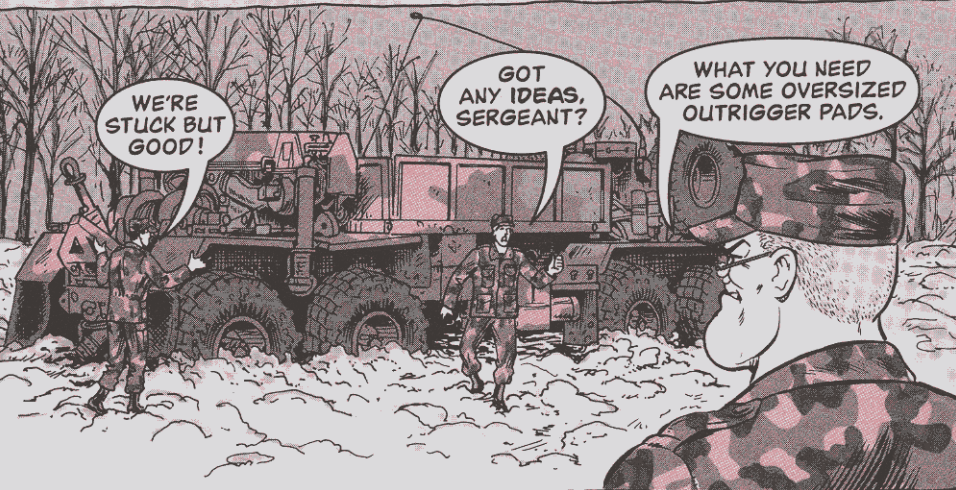
Joel B. Hudson
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Administrative Assistant to the Secretary of the Army
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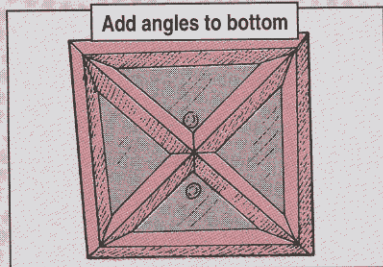
Oversized Outrigger Pads



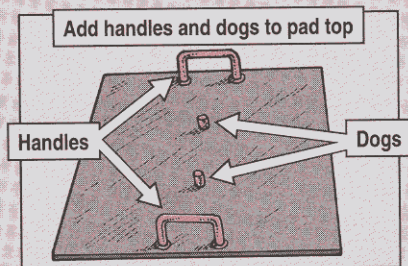
Just the mention of a stuck HEMTT wrecker gives most recovery folks heartburn. Here's a little something that might soothe the pain.

Make a couple of oversized outrigger pads to aid in self-recovery.

Each 2-ft square pad is made from sheet steel at least 1/4 inch thick. Reinforce each edge with 2 x 2 x 1/8-in angle iron. Then criss-cross the pad's bottom with more angle iron.



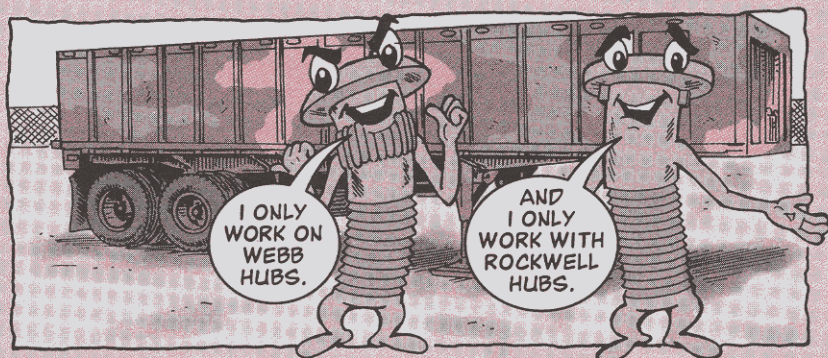
Use 1/2-in bar stock to make a couple of dogs so that the truck's outrigger pad fits onto them. That way, there's no chance for slippage.



Use more bar stock to make handles for the pads so you can easily get them on and off the wrecker.

These pads let you raise the rear end of the HEMTT and put dunnage underneath. It's best to do one side at a time because of the HEMTT's weight.

RECOGNIZING WHEEL STUDS



Your M871A2 may have wheel hubs and drums manufactured by both Rockwell International and Webb Wheel Products, Inc. That's OK, because they're interchangeable.

Every part of the hubs and drums are interchangeable, too—except the wheel studs.

You must use Rockwell studs on Rockwell hubs, and Webb studs on Webb hubs. Mixing studs and hubs damages the hubs.

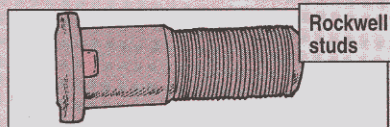
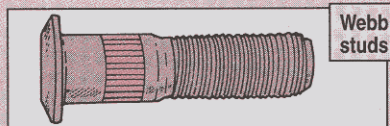
So how do you identify studs? Webb studs are serrated. Rockwell studs have two key-like pieces under the head and no serrations.

You must also remember that the studs are left- and right-handed.

Use left-hand studs only on the road-side hubs and right-hand studs only on the curbside hubs. If you don't, the studs will loosen in use.

LEFT-HAND STUDS HAVE "L" MARKED ON THE THREAD END AND RIGHT-HAND STUDS HAVE "R".

HERE ARE THE NSNs.



Studs	NSN 5307-01-
Rockwell, right-hand	317-2617
Rockwell, left-hand	317-2618
Webb, right-hand	431-7560
Webb, left-hand	431-7563

HMMWV ...

MIRROR REFLECTIONS

Dear Editor,

For blackout conditions, HMMWV side mirrors must be turned inward so they don't give away your position.

Some HMMWV drivers push in the entire mirror frame. But that causes the frame to work loose from the body of the truck. On a rough trip, the mirrors could actually bounce themselves right off the truck.

We save wear and tear on the frame by telling drivers to turn just the mirror inward and leave the frame alone.

SGT Jesus Mora
SSG William Kreutzer
C Co, 2/6 ADA
Ft Bliss, TX

FROM THE DESK OF THE Editor



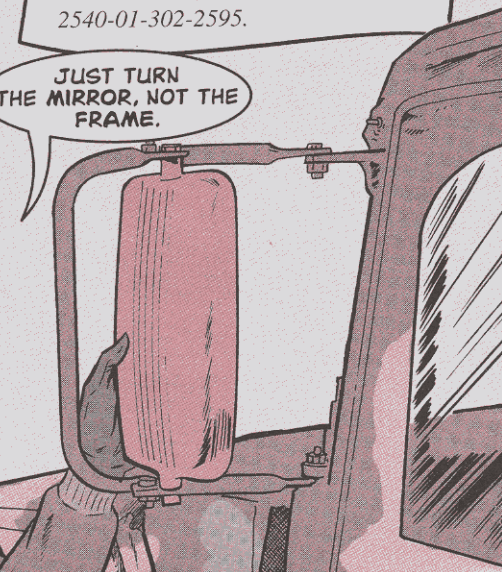
Your suggestion is certainly something to reflect on.

'Course, you may still want to fold the mirror frame against the truck body when you're traveling through thick brush. (If you don't want to move the mirror at all, use cloth—or even mud—to cover the glass).

You don't have to put up with loose mirrors, though. Use the rivet installation tool kit, NSN 5180-01-201-4978, to rivet the frame tight. Instructions are on Page 10-110 in TM 9-2320-280-20-3. Also make sure you have the new nut insert, NSN 5310-01-413-3276. It holds better than the old insert.

If you haven't gotten the new "West Coast" mirror, it comes with NSN 2540-01-302-2595.

JUST TURN
THE MIRROR, NOT THE
FRAME.



Give Hood a Handle

More than a few of you HMMWV drivers and mechanics have mashed a finger or hand trying to safely lower the hood.

And more than a few hoods have been damaged when they've slammed shut, because you couldn't get a grip.

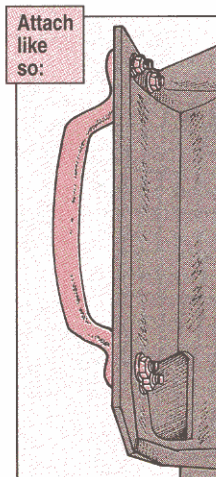


Solve these problems with a handle that's a snap to add, according to SFC John Shank II of Ft Campbell, KY. Here are the parts:

Item	NSN
Door handle (used on M44A1/A2-series 2 ¹ / ₂ -ton trucks)	5340-00-621-2591
Machine bolts (4)	5306-00-068-0513
Self-locking nuts (4)	5310-00-877-5796
Flat washers (4)	5310-01-112-6655

Install the handle between the hood latch and the driver's door. Here's how:

1. Drill four 1⁷/₆₄-in holes, matching the handle holes, in the left side of the hood next to the latch. (Note: remove any material from the underside of the hood that will keep you from installing the hardware.)
2. Install the handle with the bolts, washers and locknuts.
3. Torque the nuts to 30 lb-in.

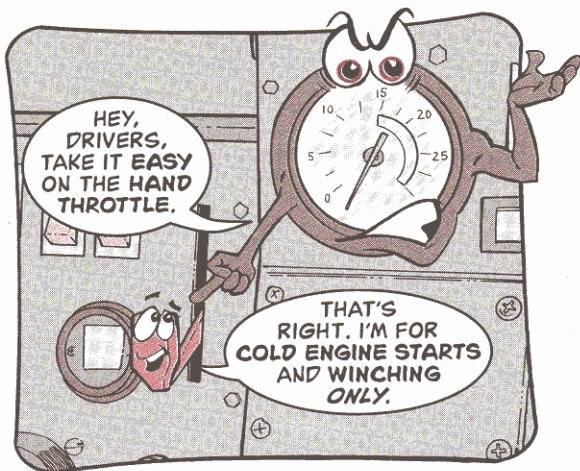


Lay Off Hand Throttle

Drivers, never use your FMTV's hand throttle as a cruise control.

Unlike the cruise control on your POV, the truck's hand throttle doesn't shut off when you hit the brakes. If you have to stop in a hurry, you won't have time to mess with the hand throttle.

Play it safe. Use the hand throttle only for cold engine starts and winching operations.



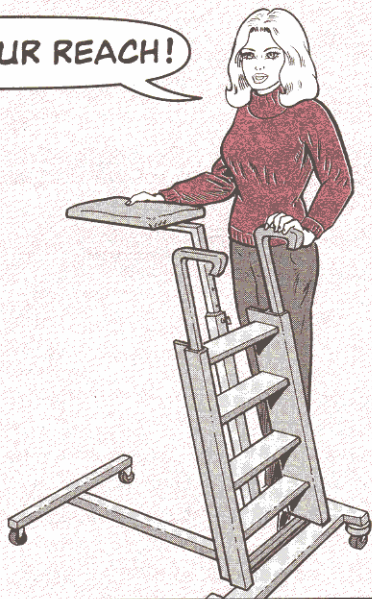
EXTEND YOUR REACH!

When you work on truck engines, you do a lot of climbing, reaching and straining.

There's a new ladder on the scene to make the job easier and safer. It's yellow, made of heavy-gauge metal, and has four non-slip steps. It extends to five feet, four inches.

Get one with NSN 4910-01-299-5743.

It's authorized by CTA 50-909.



How Are You Engaged?

MECHANICS, WHEN YOU'RE FINISHED CLEANING MY FRONT WHEEL HUBS, MAKE SURE YOU PUT THEM BACK TOGETHER RIGHT!

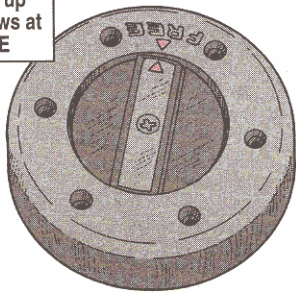
Otherwise, the hub pieces don't seat properly. The hub stays locked in either two-wheel or four-wheel drive and can't be disengaged.

That's OK unless you have one hub in two-wheel drive while the other one's in four-wheel drive. Running your truck like that will cause serious drive train damage.

Put the hub together like this:

1. Line up the arrows at FREE and press the two pieces together.

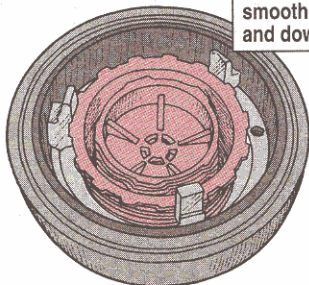
Line up arrows at FREE



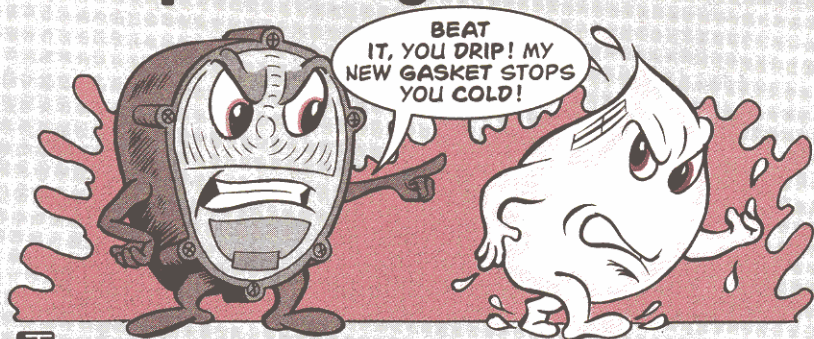
2. Get a second mechanic to put in the locking screw. It's next to impossible to hold the two pieces together with just one hand.

3. Turn the hub upside down and watch the center piece while turning the hub back and forth from FREE to LOCK. If it moves smoothly in and out, you're good to go. If not, take the hub apart and start over.

Center piece should move smoothly up and down



Composite Lights vs. Water



The natural-born loser in the battle between moisture and any electrical device is the device. So it is with the front and rear composite lights on tactical trucks.

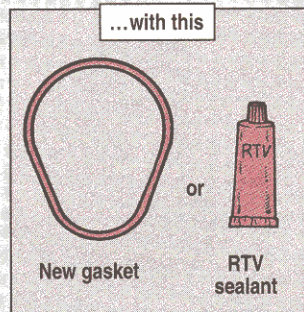
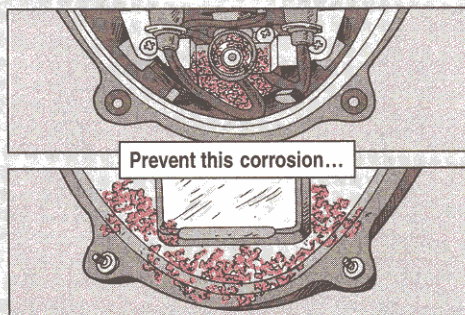
Units replace too many lamps and other light components that have shorted or rusted out because moisture got in where it didn't belong. And most often the reason moisture gets to do its dirty work is a bad gasket.

Never, ever reuse a gasket when you replace a turn signal, stop, tail, parking or blackout marker lamp in a composite light.

Carefully install a new gasket so there are no pinch points or gaps when the screws are tightened. There'll be leaks anywhere the gasket does not make a good seal.

If you've never had success with gaskets no matter how hard you've tried, put a seam of RTV sealant, NSN 8040-00-728-3088, around the light.

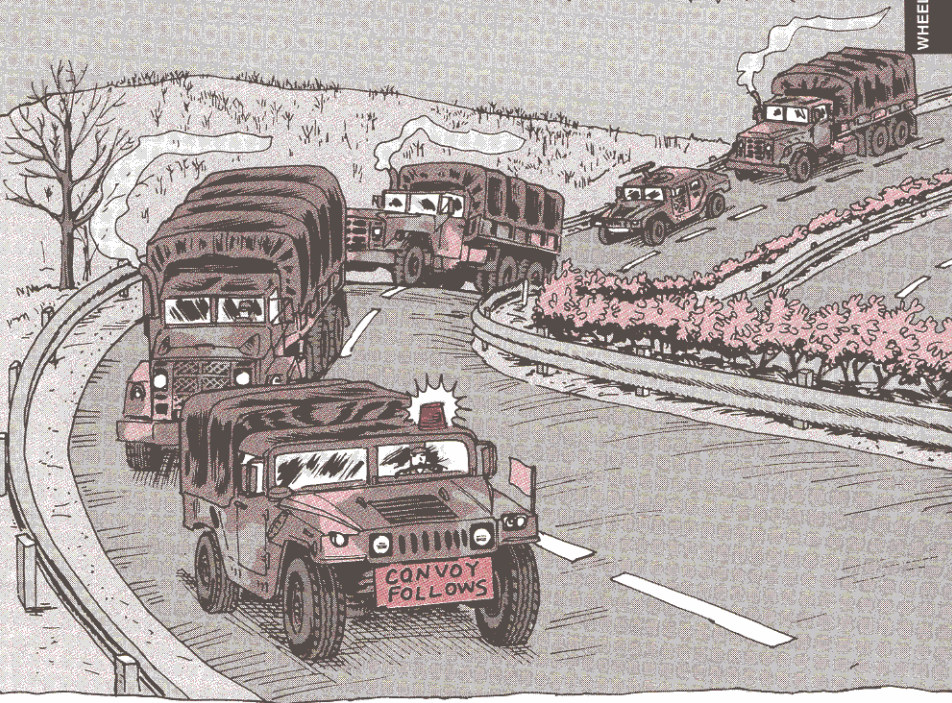
You'll have a little more work to do to clean the sealant off next time you work on the light, but chances are that next time will be much further off than what you're used to.



Warning Light Kits . . .

Watch Out for RAWLS

WHEELED VEHICLES



So you need a rotating amber warning light (RAWL) to meet the requirements of Para 2-16G of AR 385-55? That's 'cause you're the first or last vehicle in a convoy.

Most big truck and recovery vehicle TMs list warning light kits, but if yours doesn't, your CO can OK the kit for your vehicle. Here's what you need:

For 2 $\frac{1}{2}$ - and 5-ton dump trucks, ask for NSN 6220-01-219-7620. The 5-ton expansible van takes NSN 6220-01-219-7621.

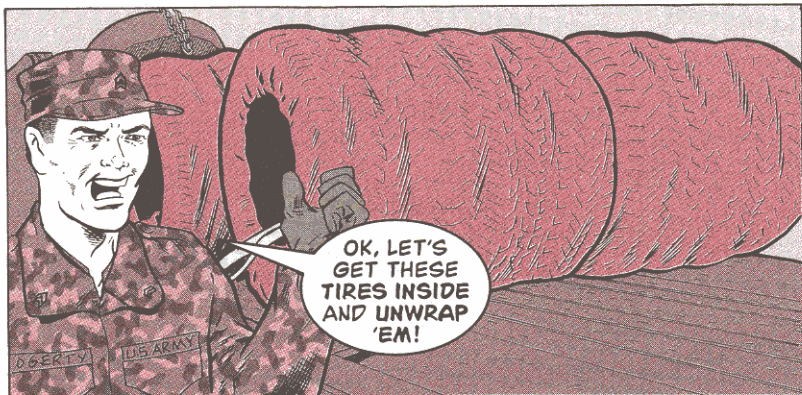
For all other 2 $\frac{1}{2}$ - and 5-ton trucks (including M816 and M936 wreckers), use NSN 6220-01-195-1791. For CUCVs, HMMWVs and all M747, M871 and M872 semitrailers, you need NSN 2590-01-107-9696.

These kits don't come with an amber bubble light. To get one, use NSN 6220-00-947-7570.

The printed word on all light kits is found in TB 9-2590-510-23.

"TIRING" WORK MADE EASIER

Mechanics, you can make tires—especially HMMWV tires—easier to work with by following these simple tips.



Remove tires from the restrictive manufacturer's packaging as soon as you can after they get to the motor pool.

Store the tires on their tread, not on their side.



Keep tires at room temperature, if possible. Tires that sit in cold weather should come indoors at least 24 hours before they're mounted.

This will make installing a runflat spacer, for example, much easier for your HMMWV maintainers.

Heavier Jack for M1097s

A 3 1/2-ton jack, NSN 5120-01-375-0070, is authorized for M1097 HMMWVs. Some trucks (serial number 147072 and below), however, came with a 2-ton jack. If your truck doesn't have the heavier jack, get one in a one-time free issue deal by sending a memo to:

US Army TACOM
ATTN: SFAE-TWV-LTV (Ron Mara)
Warren, MI 48397-5000

You can also use e-mail:
marar@cc.tacom.army.mil

Include the vehicle serial number and your complete address, DODAAC and POC with phone number.

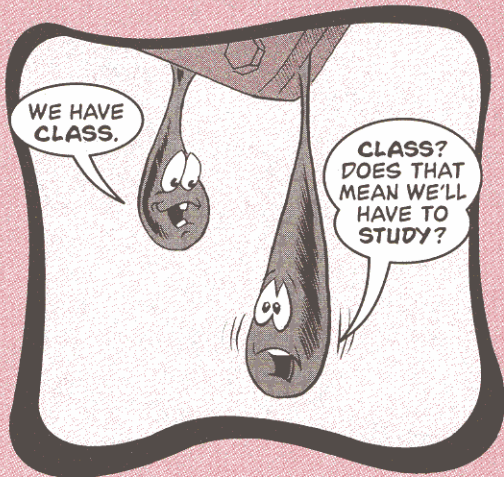
Leaks Have Class

Most TMs say it's OK to operate your vehicle with minor leaks (Class I or II). Just keep an eye on the fluid level in the component and do the PMCS.

But if the leak graduates from Class II to Class III, park your vehicle and call a mechanic. Class III leaks make your vehicle NMC.

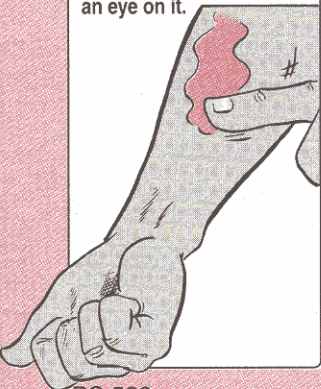
How do you know when a leak is Class I, II or III?

Here's a simple way to classify leaks by using coffee as an example.



Class I

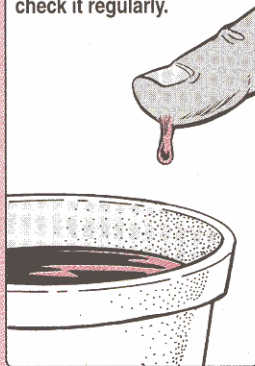
Dip your finger in a cold cup of coffee and then wipe your finger across your forearm. There will be some dampness, a little stain, but no drops. This is what a Class I leak looks like. On your equipment, wipe the area dry and keep an eye on it.



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Class II

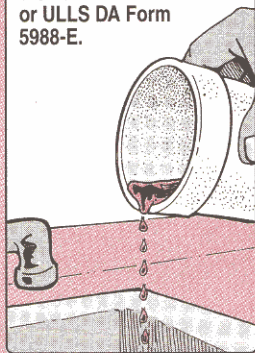
Stick your finger in the coffee again, and then hold it over the cup. Notice the drop that refuses to fall, Class II leaks form drops that are not heavy enough to drip. They're most often caused by seal and gasket wear. Clean the spot and check it regularly.



11

Class III

To see what a Class III leak looks like, slowly tilt your coffee cup over a sink. Watch as a few drops fall into the sink. That's what happens when seals and gaskets are totally worn out. Report Class III leaks and record them on the vehicle's DA Form 2404 or ULLS DA Form 5988-E.



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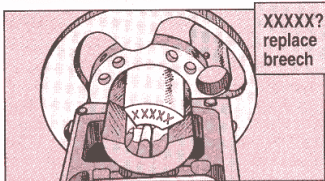
Staying on Rounds Track



You can't fire and forget with the M242 automatic gun due to the new mix of sabot and full-bore rounds. After 12,500 rounds, the M242 breech assembly needs to be inspected every 1,000 rounds up to 25,000 rounds and turned in at the first sign of cracks. After 25,000 rounds, the breech needs to be turned in, cracks or no cracks.

That's why you need to keep track of how many rounds are fired (don't count dry fires or dummy rounds) and record them on DA Form 2408-4, Weapons Record Data cards. Your armorer keeps the cards on file in the arms room.

As an extra precaution, ACALA wants an X on the breech for every 5,000 rounds. Using stamp set, NSN 5110-00-293-1904, your armorer can stamp a 3/16-in X on the upper front face portion of the breech. When you



get to the third X, it's time to start inspecting the breech every 1,000 rounds.

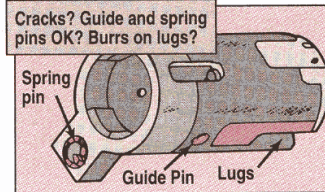
Check your gun's 2408-4 and get your armorer to bring you up to speed X-wise.

Missing 2408-4

Accidents happen, though, and 2408-4s disappear. Then you have no way of knowing how many rounds your M242 has fired (unless someone's been X-ing the breech). All is not lost, though.

Inspect the breech for cracks. If it has none, make sure that the spring pin

is in place, tight, and in good shape and the guide pin's installed. It's OK for the guide pin to be loose as long as it's installed in the breech. Your armorer can replace a bad spring pin.



Also check the lugs for burrs and rough edges. Your armorer can stone them away.

A breech with no cracks and good spring and guide pins can still be used. Mark on a 2408-4 that the breech is good. Reinspect the breech every 1,000 rounds. As long as no cracks appear and the guide and spring pins are OK, the breech can be used for up to 5,000 more rounds. Then it must be replaced.

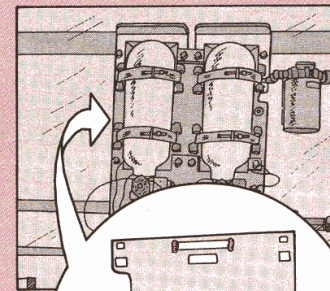
If cracks appear, the breech must be replaced immediately. Support should turn it in as excess.

Bracket Cracker

Vibration has been cracking welds on the back of the AFES mounting bracket on a lot of M992 ammo carriers. When enough welds break—**CRASH!**—down come the bottles.

Prevent that tumble by taking a close look at all six weld points. A good time to eyeball welds is after removing the ammo racks during your monthly PMCS.

Use a flashlight to look at the welds between the bracket and the hull wall.

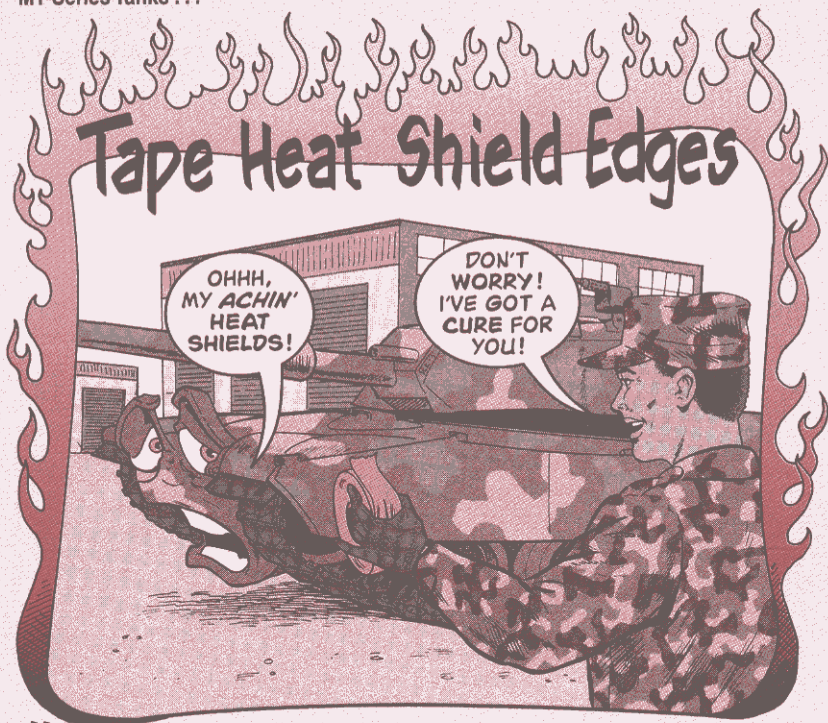


Look for cracks in welds behind bracket

If you see any cracks at all, the bracket needs to be repaired by direct support.

Make a note of this new inspection until the TMs can be updated.

Tape Heat Shield Edges



OHhh,
MY ACHIN'
HEAT
SHIELDS!

DON'T
WORRY!
I'VE GOT A
CURE FOR
YOU!

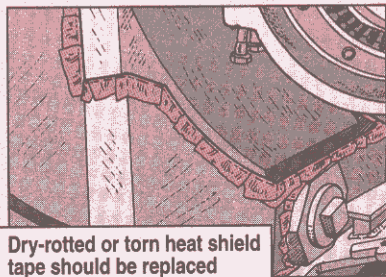
Mechanics, the fuel cell heat shields in M1-series tanks take a lot of abuse. The aluminum tape installed around the edges gets old and starts to dry rot. Bumps and rubs during powerpack installation don't help much either.

The PMCS tables in the -20-1-1 TMs say the vehicle is NMC if the heat shields are damaged, so most units simply replace them.

SSG Joseph W. Marconi of Ft Lewis suggested using new tape to repair small, damaged sections of the heat shield edges. His idea was approved by both TACOM and the SMART suggestion program.

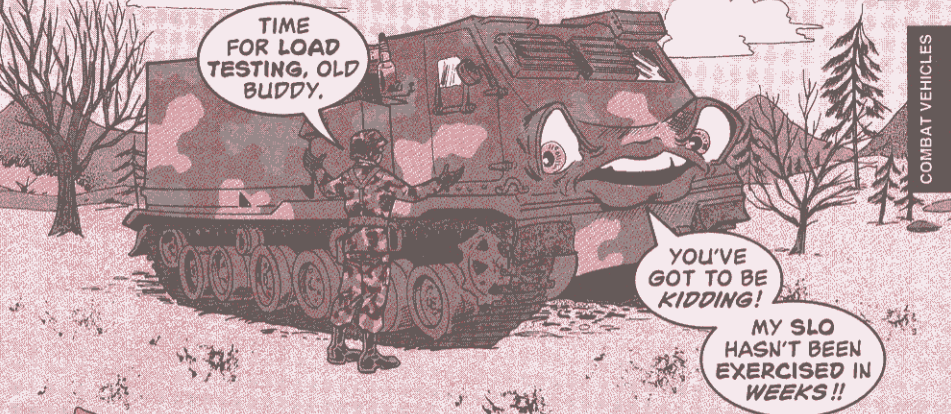
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So, use tape, NSN 7510-01-176-3398, to repair damaged edges that are 12 inches long or less. Heat shields with more extensive damage should be replaced in order to prevent a fire hazard.



Dry-rotted or torn heat shield tape should be replaced

Lock Out SLO Problems



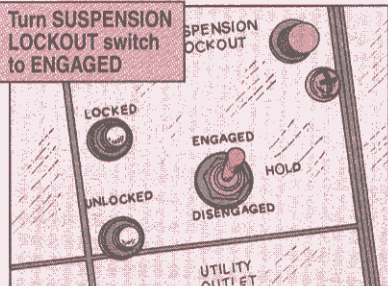
Drivers, exercise is good not only for you, but also for the suspension lockout (SLO) system on your MLRS.

Without proper exercise, the seals dry out and leak hydraulic fluid. The next time you try to lock down the numbers 1, 5 and 6 roadarms for load testing, they won't hold pressure.

Exercise the SLO weekly. Here's how:

1. Turn on vehicle power.
2. Flip the SUSPENSION LOCKOUT switch to ENGAGED. The UNLOCKED light will come on.

Turn SUSPENSION LOCKOUT switch to ENGAGED



3. Pump the SLO handle until the UNLOCKED light goes out and the

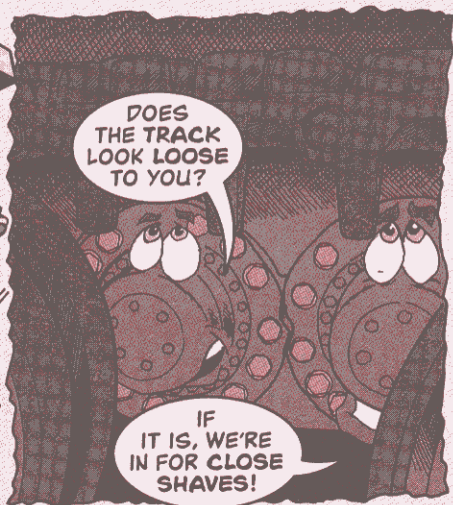
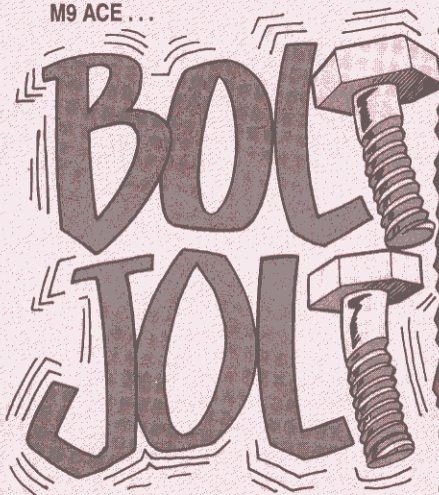
LOCKED light comes on. The roadarms are now locked.

Pump SLO handle back and forth



4. Flip the SUSPENSION LOCKOUT switch to DISENGAGED to unlock the roadarms.

M9 ACE ...



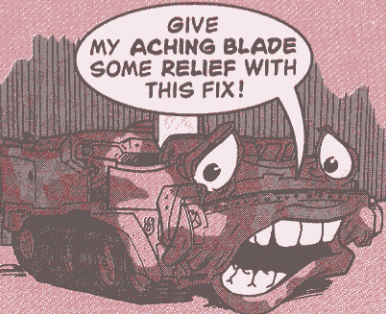
Operators, loose track will damage the bolts that mount the ACE's front roadarm actuator to the hull.

A loose track rubs against the bolts, backing them out and shearing them off. If enough bolts shear off, the actuator loosens, which could damage the hull.

Eyeball the bolts often to see if they're loose. Look for any marked or scraped areas where the bolts may be damaged. If bolts are loose, tighten them and continue to operate until your mechanics can replace them with self-locking bolts, NSN 5306-01-016-8296.

If bolts are damaged or already missing, get them replaced with new bolts before you continue operation. Never reuse old actuator bolts. They will not hold.

M9 ACE Blade Repair

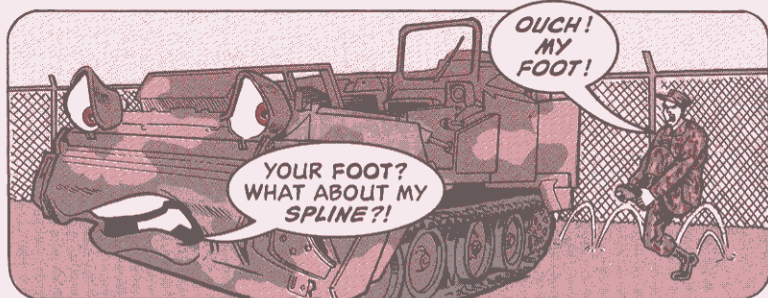


Tell your buddies in support to eyeball Pages 3-8 through 3-14 of TB 43-0001-39-2 (Sep 94) on how to repair the M9 ACE dozer blade's moldboard. A repair saves your unit shop the downtime and dollars of replacing the whole blade. The TB is out-of-date, but the info's still good.

The repair includes replacing the blade's moldboard with a thicker, more durable plate.

If you don't have a copy of the TB, see your TACOM LAR or write to Half-Mast.

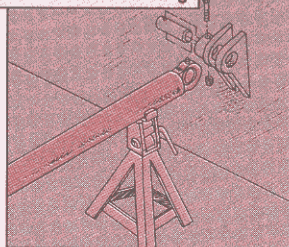
Ejector Cylinder Removal



Mechanics, play it safe when you disconnect the 300-lb ejector hydraulic cylinder from the rear of the M9 ACE hull.

Before you disconnect it, support the cylinder with straps, blocks of wood, or a jackstand.

Support cylinder before disconnecting



If you don't support it, chances are it will drop—damaging you or the steer unit shifting spline.

Follow the word on Pages 4-302 through 4-307 of TM 5-2350-262-20-1 to remove the cylinder.

MK-155 MICLIC ...

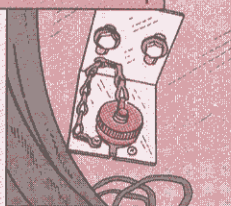
A Cap That Fits

Dear Editor,

In PS 522, you said there is no replacement cap for the electrical raise W5P3 connection on the MK-155 mine clearing line charge (MICLIC). I think I have the answer—use the cap for the control box J1 connector. NSN 5935-01-195-2337 gets the cap for \$6.

Werner Knol
Logistics Assistance Office
Ft Knox, KY

Use control box J1 connector cap

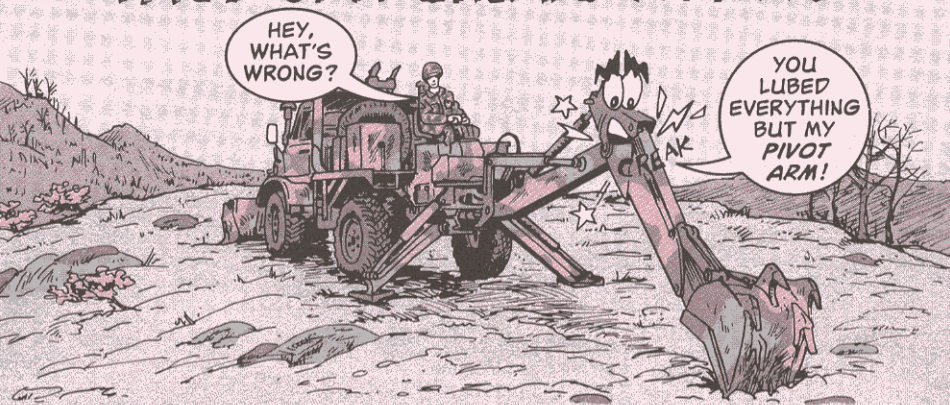


FROM THE DESK OF THE Editor

A tip of the cap to you. Thanks.

SEE...

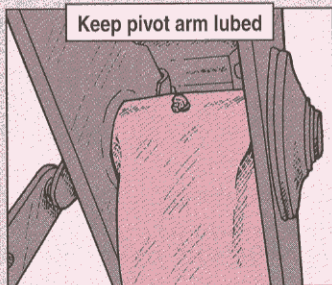
SNUB OF A GREASE FITTING



Operators, one of the grease fittings on the SEE's backhoe often gets overlooked. It's the one that lubes the backhoe's dipper pivot arm.

Without lube, the pivot arm's bearing can seize, causing the backhoe to bind. That means you can't excavate.

Keep the pivot arm lubed. During scheduled services, give the fitting four to five pumps of grease.



Hood Removal

Operators, remember to lift when you remove the SEE's hood.



The wires to the brake and clutch fluid reservoir sending unit hang out like a sore thumb. It's easy to tear them loose if you just slide the hood off. Once the wires are broken, you won't get a reading inside the cab when the fluid levels are low.

If you remember to lift the hood clear of the reservoir's wires when you remove it, you won't have to worry about that disconnect.

The Right Mark

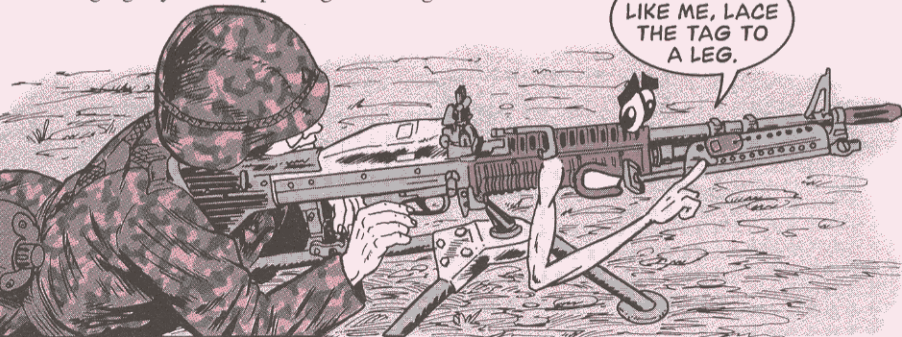
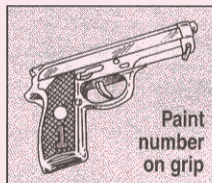
Armorers, you've got to ID your unit's rifles, machine guns, and pistols. Without ID, you can't account for weapons in the property book or on weapons cards. That can put you in hot water at inspection time.

ID is even more important in the case of machine guns, because without it there's no way to make sure the barrels stay with the receiver they were headspaced for. Firing a machine gun with the wrong barrel can damage the machine gun beyond repair and injure the soldier doing the firing. Then you will really be in hot water.

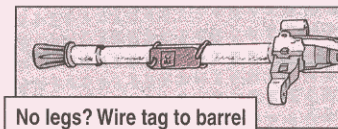
If you mark weapons wrong, though, you mark them for the junkyard. Scratching or stamping the number on the weapon ruins its protective finish. When the weapon goes to depot for overhaul, any scratched parts must be junked. If the receiver has been scratched, the weapon's beyond repair.

So what to do? For pistols, rifles, and machine gun receivers, paint the ID number on the grip or buttstock. NSN 8010-00-935-7060 gets a quart of gray paint.

For M60 machine gun barrels, order dog tags, NSN 8465-00-242-4804. Get each M60's ID number stamped on two tags—one for each barrel. Paint the tags black so they don't shine in the field. Use lacing wire to attach the tag tightly to the bipod leg so the tag doesn't rattle.



For the other machine gun barrels, the ID method is up to you...as long as you don't scratch or metal stamp the number on. You can paint the number on the barrel or use the dog tag method. If the barrel doesn't have legs, wire the tag directly to the barrel.

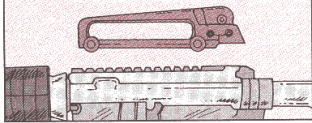


M4 Carbiners Are Different

The M4-series carbines may be part of the M16 rifle family, but they're only kissin' cousins, not identical twins.

There are obvious differences, such as the M4 being shorter than the M16. Some differences aren't so obvious, like the M4's detachable carrying handle.

M4 has detachable carrying handle



Disassembly

For instance, after you remove the buffer and action spring from the M16 stock, you're finished with its disassembly. But the M4 has a lower receiver extension that the M16 doesn't have.

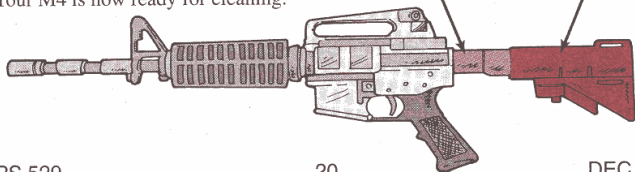
You have to extend the buttstock assembly to clean the extension. Grasp the lock release lever around the retaining nut, pull downward, and slide the buttstock to the rear.

This separates the buttstock assembly from the lower receiver extension. Your M4 is now ready for cleaning.

Put buttstock assembly back onto lower receiver extension first

Lower receiver extension

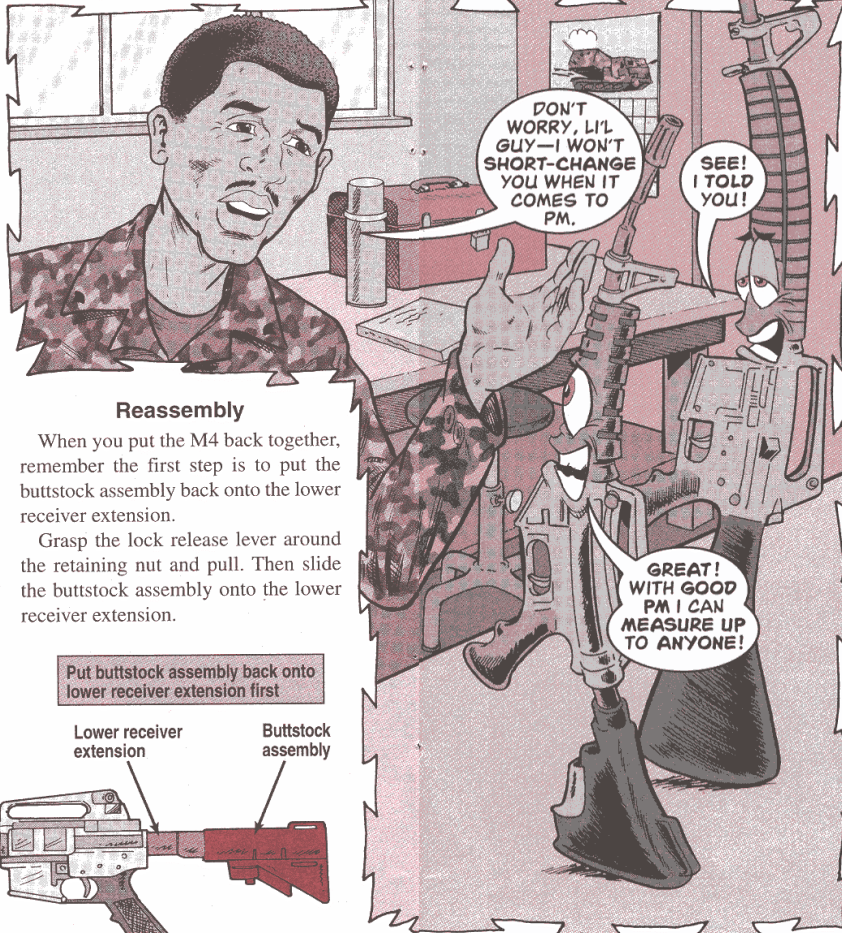
Buttstock assembly



Reassembly

When you put the M4 back together, remember the first step is to put the buttstock assembly back onto the lower receiver extension.

Grasp the lock release lever around the retaining nut and pull. Then slide the buttstock assembly onto the lower receiver extension.

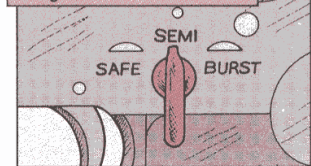


Firing and Ammo

Before you pull the trigger on your M4, check what mode it's in.

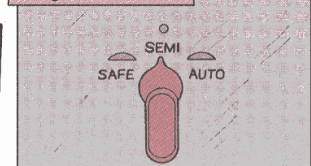
The firing choices for the M4 are SAFE, SEMI, or BURST, like the M16A2.

Firing modes for M4 and M16A2



But the M4A1 carbine's third mode is AUTO, like the old M16A1. Instead of a quick, three-round burst, the M4A1 shoots automatic. Never confuse AUTO and BURST. They are **not** the same.

Firing modes for M4A1



The M4-series carbines shoot the same ammunition as the M16A2.

If you accidentally use M16A1 ammo in your M16A2 or M4 carbine, don't worry—it's not a safety hazard. But it won't be as accurate, and the effective range is reduced.

Different Zero

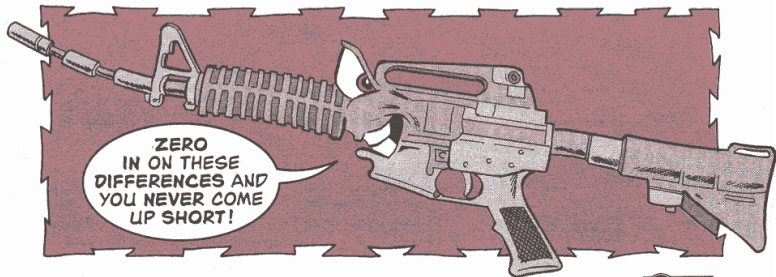
The M4/M4A1 carbine's barrel is 5.5 inches shorter than the M16A2 rifle's barrel, which means that sight adjustments are more drastic on the M4-series.

One click on its front sight at 25 meters moves the strike of a round 1.2 centimeters. On the M16A2, one click moves it only .9 centimeter.

That's a mighty big difference at 300 meters.

To zero the M4/M4A1, leave the rear sight elevation knob setting at 6/3. Then make sure your shot groups are center of mass and within the zero circle. Your carbine is now zeroed for 300 meters.

Always use the correct target. The 25-meter zero target for the M4/M4A1 is printed on the **back** of the M16A2's zero target. This double-sided target, NSN 6920-01-395-2949, is new. The two sides look alike, but they **are** different.



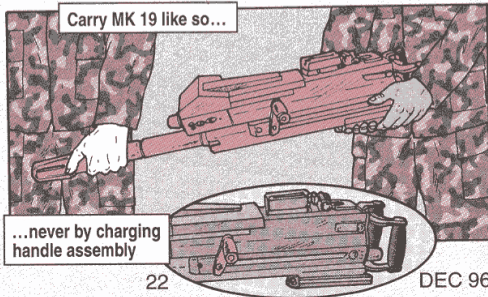
PS END

MK 19 Machine Gun ...

The Two-Man Lift

Gunners, never pick up the MK 19 by its charging handle assembly. That bows the charging handle, causes bolt override, and keeps your MK 19 from charging or firing.

The MK 19 is a two-person lift—it weighs more than 75 pounds. Always get a second person to help you move it. Cradle the weapon between the two of you.



Test Your Drink Tube

Try this quick test to see if your M42 mask's external drink tube quick-disconnect connects to the canteen with a good seal:

- ★ Fill a cup with water.
- ★ Put your mask on.
- ★ Stick the quick-disconnect in the water.
- ★ Blow in the internal drink tube.
- ★ Watch for bubbles in the water. No bubbles means the quick-disconnect

is good to go. Bubbles? The quick-disconnect needs to be replaced. Don't use the mask until it's repaired. A leaking quick-disconnect means you're not protected when there is agent around.

LOOKS LIKE YOUR DRINK TUBE QUICK-DISCONNECT IS LEAKING.

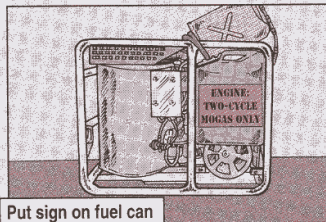


Fuel for Thought

The M17 decon is not going to run without fuel—you know that. But what many chemical types forget is that the M17 won't be running long if you give it the wrong fuel, either.

Hands down, the number one reason that M17s lose engines is that something other than MOGAS is mixed with the two-cycle oil that goes in the engine.

To help everyone remember, paint on the engine fuel can **ENGINE: TWO-CYCLE MOGAS ONLY**.



Put sign on fuel can

Keep in mind that the oil/gas mix depends on the engine. The new Cuyana 215cc engines take one pint of two-cycle oil per five gallons of MOGAS, while older JLO 197cc engines take one quart of oil per five gallons. You can tell which engine you've got by looking at the fan guard. The 215cc has a plastic fan guard, the 197cc guard is aluminum.

If you're not sure if you added oil to the engine fuel can, use that fuel for the burner. The burner can run on anything—MOGAS, diesel, JP4, kerosene—but MOGAS is best.



TM 3-4230-218-12&P says it's OK to substitute 30-weight oil for two-cycle. **Forget that** unless you're in a life-or-death situation. Thirty-weight is bad for the engine.

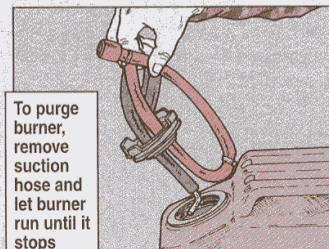
Adding oil to the MOGAS is pointless unless you shake the fuel can to mix the two.

Otherwise, the fuel and oil separate and the engine doesn't get lubed.



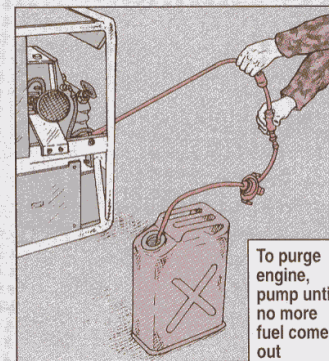
the pressure escape before taking off the lid.

At the end of operations, purge the burner fuel system by pulling the suction hose out of the fuel can. Leave the return hose in the can. When the burner stops, the system's purged.



To purge burner, remove suction hose and let burner run until it stops

To purge the engine, first shut it off. Unscrew the fuel line from the can and pull the line out far enough so it can't draw more fuel. Pump the bulb in the fuel line until no more fuel comes out.



To purge engine, pump until no more fuel comes out

Of course, shaking the can builds pressure. If you twirl the lid off the can, fuel spews everywhere. After you shake the can, put it on the ground and slowly unscrew the cap to let the pressure vent.

With the can still on the ground, screw the fuel hoses into the can and then put the can on the M17.

Open the burner can lid slowly, too. Pressure can also build there. Let all



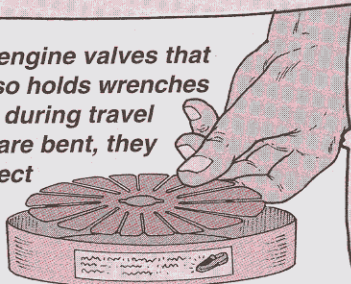
Unscrew lid slowly

Spare Valve Protection

Dear Editor,

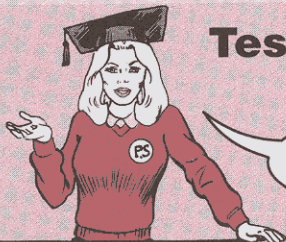
M157 smoke generators have spare engine valves that go to the field in a tool bag. The bag also holds wrenches and engine heads that bounce around during travel and bend the valves. Once the valves are bent, they can't seal tightly on the head. We protect spare valves by keeping them in an old shoe polish can. But any can the valves fit in would work, of course.

SSG Jacob Verrier
Ft McClellan, AL



FROM THE DESK OF THE Editor 

We appreciate your "can do" solution. Good job.



Test Your PS IQ!

HERE ARE
SOME QUESTIONS ABOUT
THE EQUIPMENT FEATURED
IN THIS ISSUE.

- What difference does it make who manufactures the wheel studs on M872A1 trailers? (Page 3)
- Which MLRS roadarms can be locked down by the suspension lockout system? (Page 15)
- What are the major differences between the M4 carbine and the M16 rifle? (Pages 20-21)
- What is one of the first things to check if your AN/UGC-74 teletypewriters are not communicating with one another? (Page 47)
- Why is snow a hazard to camouflage nets? (Page 51)
- What is one source of information for ACALA sets, kits and outfits? (Page 54)
- How do you order publications electronically on the Internet? (Pages 56-58)
- What suggestion program pays cash for maintenance improvement suggestions? (Page 60)

A BIT Depressed, Again

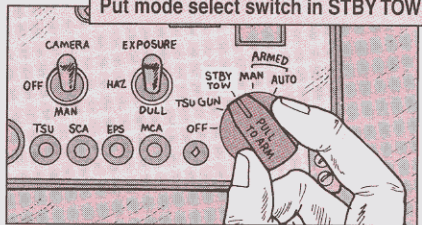
Dear Windy,

The article on the built-in test (BIT) on the TOW control panel of the Cobra's M65 armament subsystem in PS 518 was good info as far as it went. But you should correct the info in the operator's manual, TM 55-1520-236-10, too.

Gunners are doing the BIT check in TSU/GUN—and risking a fried stabilizer control amplifier (SCA) circuit card—when STBY would do just fine.

So, in Para 4-13.4.e.(1)(b) of the -10 TM, "TSU/GUN or STBY TOW" needs to be changed to just "STBY TOW."

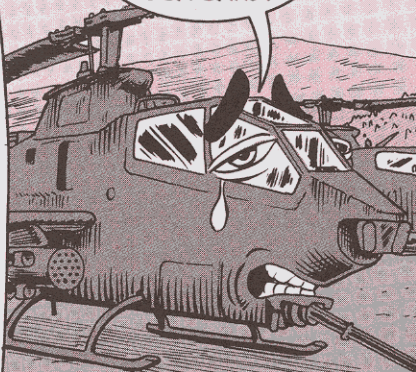
Put mode select switch in STBY TOW



And in Para 8-25.5.c., the BEFORE TAKEOFF action has the gunner putting the TCP in TSU/GUN. This is not necessary except when the mission requires it. The TCP needs to be in STBY TOW. That way, if the BIT has failed and the pilot chooses to reinitiate while in flight, the TCP will be in the right position.

CPT John D. Kovac
AASF 2, PAARNG

—SNIFF—
IT HAPPENED AGAIN! A BIT CHECK DONE IN THE WRONG MODE FRIED MY SCA CARD!



THANKS, CAPTAIN. MECHANICS, MAKE SURE GUNNERS AND PILOTS GET THE WORD.



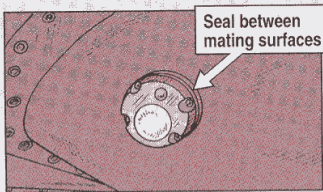
Detecting Good Maintenance

Use Sun Block

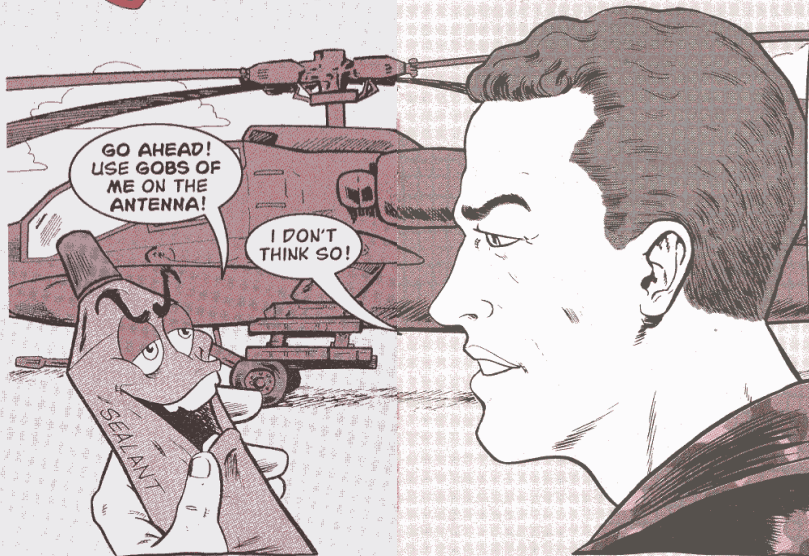
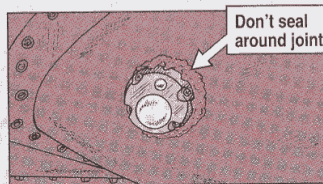
When radar illuminates his aircraft, the AN/APR-39A radar signal detecting set provides a pilot with visual threat symbols and clear voice announcements. But poor maintenance can garble those symbols and silence that voice.

Problems often start with the mistaken belief that there must be an electrical bond between the antenna-detector and the airframe.

To make sure they get this bond, mechanics install antenna detectors without applying sealant to mating surfaces—thinking it's an insulator. But sealant is needed on these surfaces to keep water out.



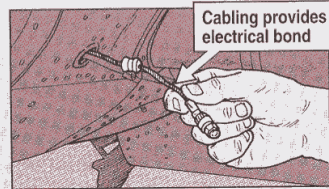
Since mechanics aren't using the sealant where they should—on the mating surfaces—they're using it where they shouldn't—around the antenna/airframe



joint and on the antenna body. All too often, they glob it on.

Too much sealant can leach onto the dome and cause signal detection interference.

The truth is, with or without sealant, you can't get a bond between the mating surfaces because the bottom of the



antenna-detector is painted. The electrical bond between the detector and the aircraft happens through the antenna-detector cabling with no help from you.

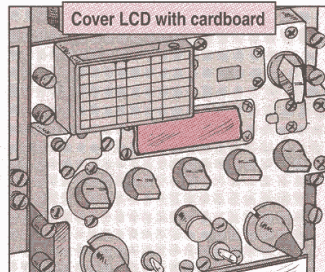
So keep water out by sealing the mating surfaces where the detector meets the airframe.

Here's how:

1. Remove any old sealant from the antenna/airframe mating surfaces.
2. Apply new sealant to the mating surfaces only. Use adhesive, NSN 8040-01-252-8587.
3. Put the antenna-detector back on the aircraft but don't seal around the joint.

Dear Windy,

The liquid crystal display (LCD) on the switching unit of the RT-1518C on the AN/ARC-164 radio set on your attack and Black Hawk helicopters gets too much sun for long periods. That causes white spots on the display. Eventually, the entire display turns white and data becomes unreadable. Then the operator has to hunt and guess radio frequency.



The answer is to cover the display with a piece of cardboard or cloth when your aircraft is parked in the sun. Of course, you remove the cover when the radio is operating.

Richard E. Mohs
PEO AVN
ATCOM

A simple solution that works. Thanks.

Windy

About those Spar Pressure Checks

WHAT DO YOU MEAN YOU'RE UNBALANCED? I JUST DID A SPAR PRESSURE CHECK!

YEAH, BUT YOU DIDN'T GET AN ACCURATE READING!

The nitrogen-pressured titanium spar of a Black Hawk's main rotor blade needs an accurate pressure check to make sure your blade is balanced. Unbalanced blades lead to disaster.

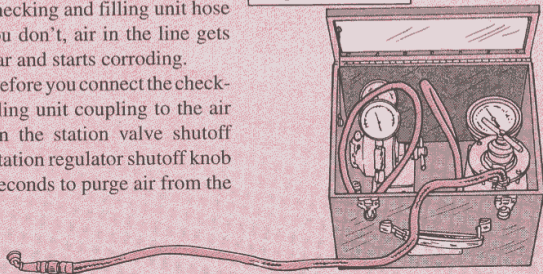
Many minor things can keep this check from being accurate. Here are the five most common and how to overcome them:

1. Failure to purge the checking and filling unit lines.

You must use nitrogen to purge the air from the checking and filling unit hose lines. If you don't, air in the line gets into the spar and starts corroding.

So, just before you connect the checking and filling unit coupling to the air valve, open the station valve shutoff knob and station regulator shutoff knob for a few seconds to purge air from the lines.

Purge air from lines



2. Failure to measure spar pressure only on a cool blade.

A blade that has been sitting in direct sunlight is full of expanded nitrogen. Expanded nitrogen means greater pressure. Greater pressure means an inaccurate reading. So, let blades cool out of the sun and under cover for at least 90 minutes (two hours is better) before making the nitrogen pressure check.



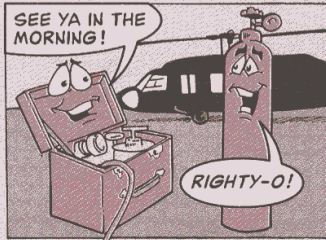
3. Failure to have the blade, the checking and filling unit, and the nitrogen bottle at the same temperature.

To get an accurate spar pressure reading, the temperature of all three components of a blade spar pressure check must be stabilized at the same outside air temperature. Too often a check begins by bringing the nitrogen bottle from a hot storage shed and the checking and filling unit from a cool storage room to check a blade in the hangar bay.

A good time to do a blade pressure check is in the morning after all three have been stored overnight in the same environment. That way they will all be the same temperature.

SEE YA IN THE MORNING!

RIGHTY-O!

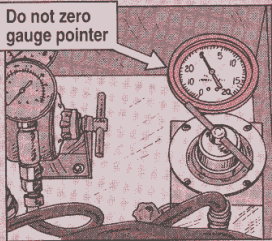


4. Failure to understand and correctly read the pressure gauge.

The absolute pressure gauge used on the checking and filling unit is always measuring the surrounding barometric pressure. That means the gauge will show a reading even before it's hooked up. Don't attempt to zero the gauge pointer.

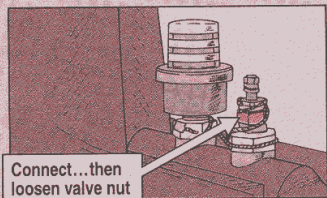
An accurate reading is obtained by making sure the gauge indicates correct blade pressure for existing blade spar temperature as shown in the TM's blade pressure chart.

Do not zero gauge pointer



5. Failure to connect the checking and filling unit before loosening the valve core control nut.

If you loosen the valve core control nut before you connect the checking and filling unit, you will lose some pressure from the spar. Always connect first and then loosen.



The reverse is true when the job is done. You must close the valve core control nut before you disconnect from the checking and filling unit. Always close and then disconnect.

I'M
BALANCED
NOW! THANKS,
BUDDY!

IT'S
AMAZING WHAT
AN ACCURATE
READING CAN
DO!

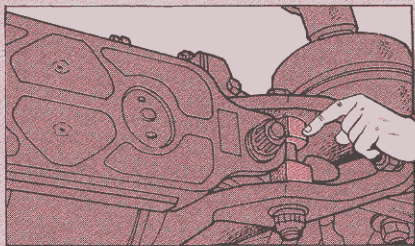
Play in the Bushings

Dear Windy,
Our Apache TMs have no inspection criteria for play in the main rotor blade damper bushings. Most of our bushings are loose. Is this OK?
SGT B. S. G.

CHECK THE BUSHINGS FOR EXCESS PLAY.

Dear Sergeant B. S. G.,
The bushings are allowed to turn and to have some play. They're allowed to move 0.006 inch on the radial and 0.010 inch on the axial. Use your thickness gauge to make the measurement. If any of your dampers have bushings with more play than that, turn them in to your support for replacement.

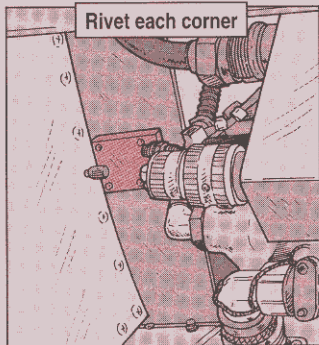
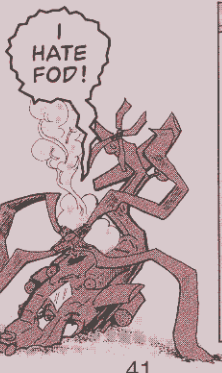
Windy



Brace Up the Bracket

Apache APU cover bracket assemblies, NSN 1560-01-186-4078, can come unglued from the firewall. Loose covers can cause FOD.

To solve this, after you glue the brackets back in place, put a rivet in each corner.

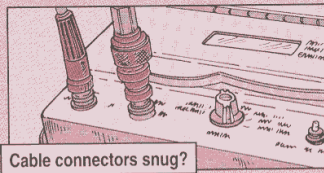


Unit maintainers, have you ever given the RT-524 or RT-246 receiver-transmitter a complete checkup, but find that it's still giving you the silent treatment? Before you pack the radio off to DS for repair, check out the antenna, specifically:

- ✓ An RF output test set
- ✓ Elements
- ✓ RF cable
- ✓ Matching unit cable

A problem with any of these components can silence the RT.

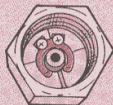
When you test the RT with the AN/PRM-34 or AN/URM-182 radio test set—like it says in Para 3-14 or 3-15 of TM 11-5820-401-20-1 and -20-2—make sure all cable connectors are snug.



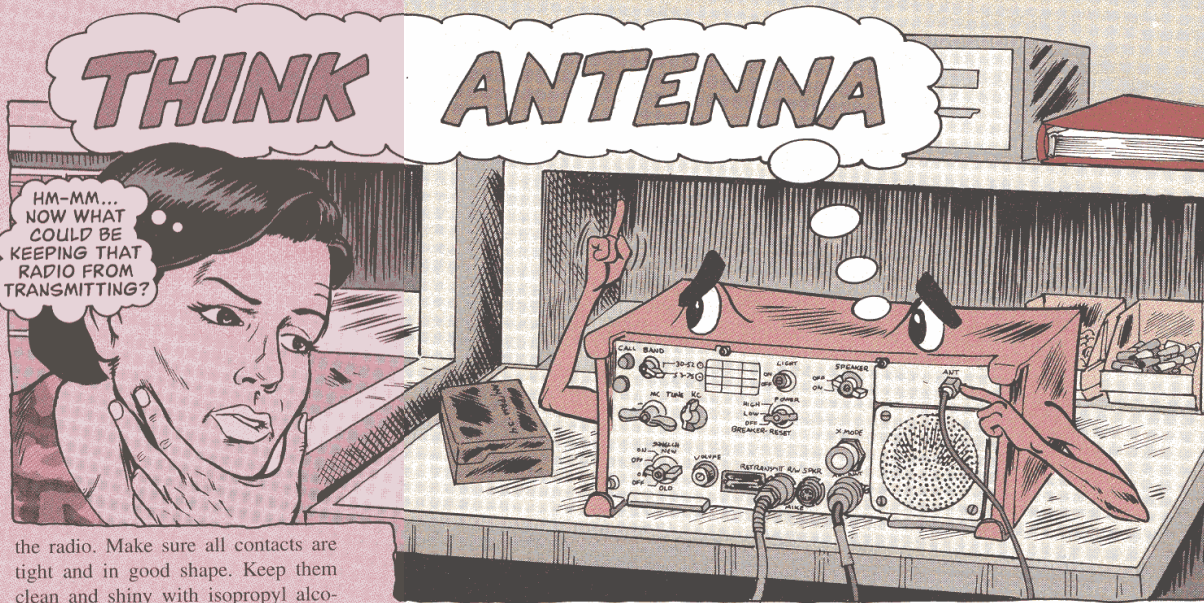
Cable connectors snug?

Loose connections make poor contact or no contact at all. That's enough to damage your radio or give a false failure indication during testing.

Keep antenna contacts clean and shiny



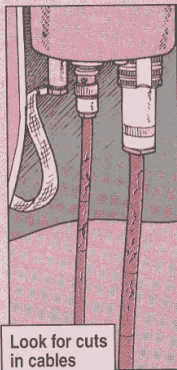
A dirty or corroded antenna contact causes broken traffic or, worse yet, high reflected RF power that can damage



the radio. Make sure all contacts are tight and in good shape. Keep them clean and shiny with isopropyl alcohol, NSN 6810-00-753-4993.

Eye the antenna CG-1773/U RF cable and the CX-4722/VRC antenna matching unit cable.

Look for breaks and cuts in insulation that might indicate shorts. Also look at cable connectors to make sure the pins are not dirty, bent, broken or missing.

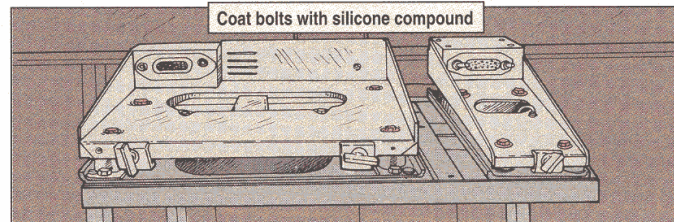


Look for cuts in cables

Slick Bolt Trick

Rain, humidity and changing temperatures can lock the bolts tight on your AN/VRC-12-series MT-1029 and MT-1898 radio mounts. Then, if you have to remove the bolts, you'll end up stripping the threads or damaging the mount.

Don't get stuck with an unnecessary problem. Coat the bolts with silicone compound, NSN 6850-00-880-7616, before screwing them into the mount.



Coat bolts with silicone compound

Plane Speaking

The MSE radio access unit's (RAU) AS-4225 antenna has a range up to 15 kilometers. You can reduce that range to less than a mile if you install the antenna the wrong way.

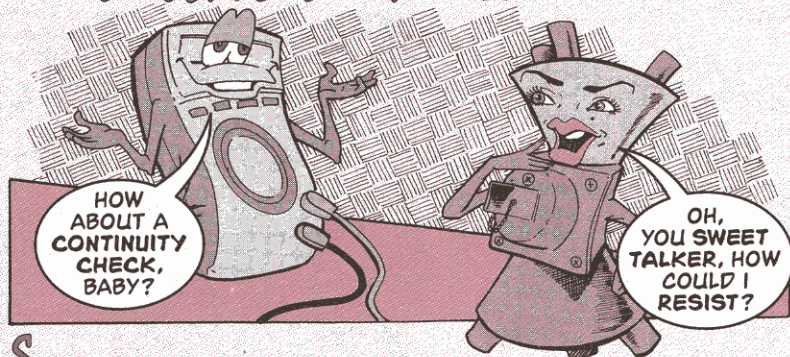
The problem is with the installation of the ground planes, those cables that connect to the antenna base. The ground planes, which help transmit the RAU signal, are attached to ropes, and the ropes are staked to the ground.

Some people don't connect all four ground planes. The ground planes look like guy wires used to support the mast. Thinking that the mast doesn't need the added support, units don't use all four.



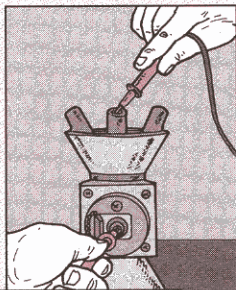
WITHOUT
ALL FOUR
GROUND PLANES,
YOUR RANGE
IS CUT
DRASTICALLY.

The Feedcone That Couldn't Resist



Some simple continuity checks on your OE-254 antenna feedcone can alert you to open circuits, which can stop transmission cold. That's why it's important to do the checks right. Here's how:

1. If your multimeter has a switch for manually selecting ohm ranges, set it to the lowest range.
2. Put one multimeter lead on the center pin of the UG-680B RF connector. Keep it there throughout the checks.
3. Touch the second lead to the threads inside all six antenna sockets. Each reading should be near zero ohms.



Put one lead on RF connector pin, other on socket threads

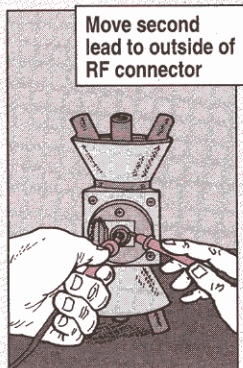
4. Then put the second lead on the outside of the RF connector. Once

again, the resistance should be near zero ohms. That's not the reading you'll get when you test many other pieces of equipment. Usually, when you check continuity between a center pin and the outside of a connector, the multimeter reads infinite resistance.

Not so with the feedcone assembly. Because of its design, near zero ohms is what you should read.

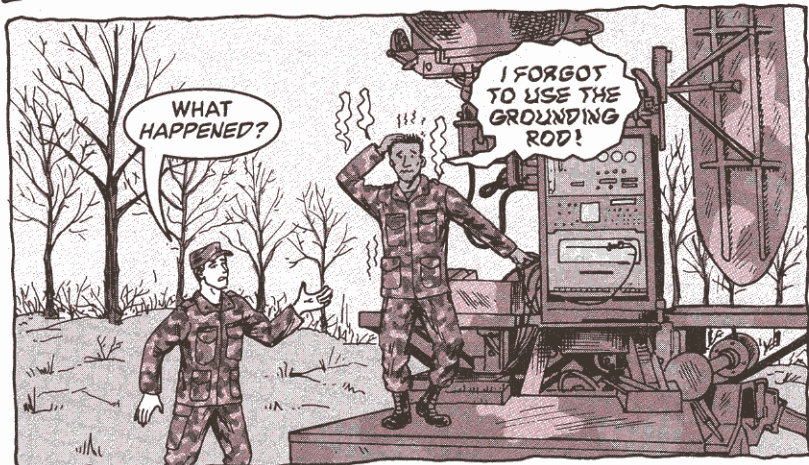
If you get a reading other than that during any check, replace the feedcone.

For more information on running continuity checks on your OE-254 antenna, read Para 4-6 of TM 11-5985-357-13.



Move second lead to outside of RF connector

Potential_{FOR} Trouble



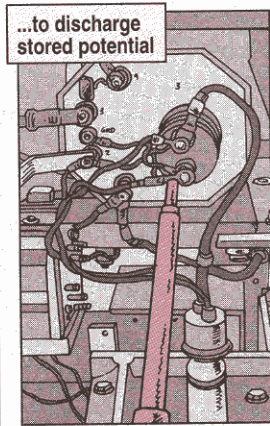
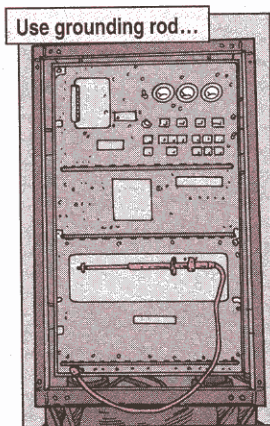
You can't say it too often: Take safety precautions when working around electricity.

The transmitter of your AN/TPN-18A radar set contains high voltages. Before you reach inside, you must do two things:

1. Turn off the primary power circuit breaker. That's the CB101 switch on the side of the receiver-transmitter's lower panel.
2. Use the grounding rod that comes with the radar set to ground these points:

- Transformer 105, terminals 1, 2, 5 & 6
- Inductor 102, terminals 1 & 2
- Capacitor 101, both terminals
- Terminals E106 & E107

That will safely discharge any dangerous stored potential in the transmitter.



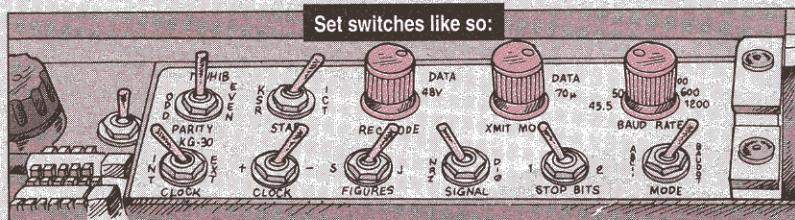
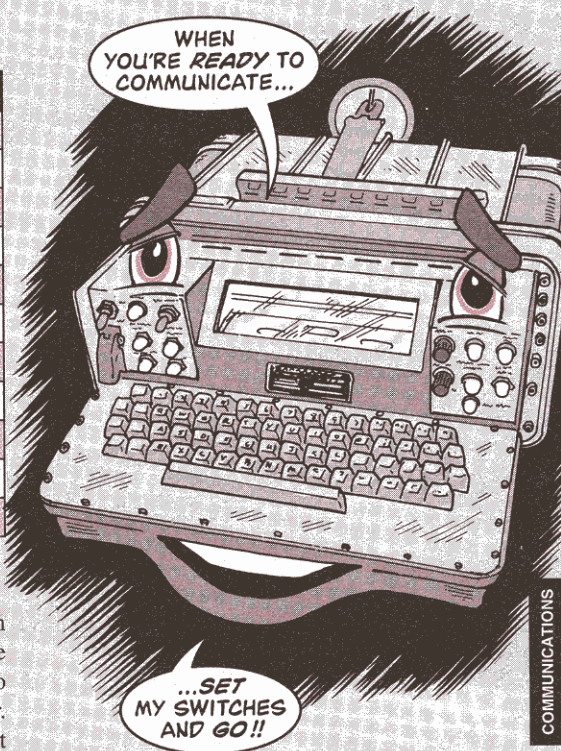
Get Set!

TM 11-5815-616-13 for the AN/UGC-74 teletypewriter does not list switch settings when the teletypewriter interfaces with KG-84 security equipment. If the switches aren't set right, you won't communicate.

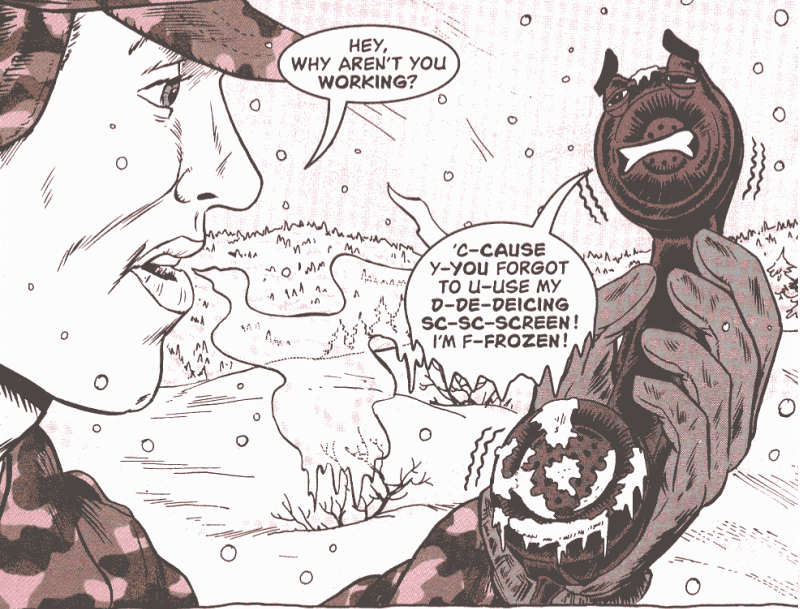
Here's how:

Switch	Setting
Parity	INHIB
State	ICT
Rec Mode	48V
Xmit Mode	70 u
Baud Rate	50 or 75
Clock	INT
Clock	- (minus)
Figures	J
Signal	NRZ
Stop Bits	1
Mode	BAUDOT

Whether they're interfacing with the KG-84 or not, all AN/UGC-74 teletypewriters in your net must have the same switch settings in order to communicate with one another. Otherwise, messages don't get through.



What a Screen Can Mean



In wintertime, your breath can be hazardous to your TA-312 telephone.

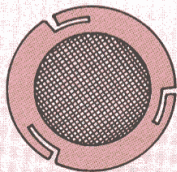
No, not bad breath, but warm breath that condenses and forms moisture when you speak into the cold telephone mouthpiece. The moisture gets inside the mouthpiece, freezes on the transmitter and stops your call from going out.

Protect your phone when temperatures dip below freezing. Snap the deicing screen on the outside of the

TA-312's mouthpiece. The screen keeps out moisture.

You'll find the screen in Appendix D of TM 11-5805-201-12. Note that

Deicing screen keeps out moisture

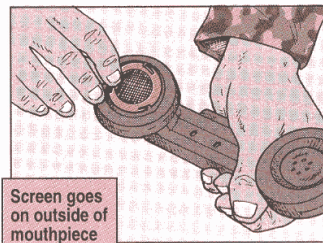


the NSN is wrong, though. Use NSN 4130-00-392-7628.

Some people think they'll lose the screen if they put it on the outside, so they unscrew the mouthpiece cap and put the screen inside. It can't keep out moisture in there.

If you install the deicing screen the right way, it'll stay on the mouthpiece. Here's how:

● Lay the screen on the face of the mouthpiece.



Night Vision Goggles ...

Tight Is Right

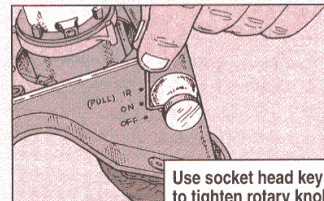
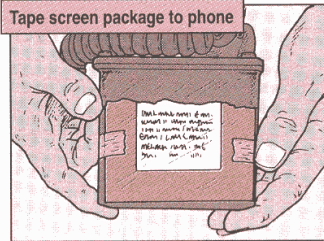
The rotary switch knob on your AN/PVS-5() night vision goggles can work loose over time and fall off. Without the knob, you can't turn the goggles and the infrared illuminator on and off.

Tighten the knob's setscrew before and after you use the goggles. The socket head key for tightening is stored in the carrying case. If you need a replacement key, get it with NSN 5120-00-293-2224. NSN 5305-00-543-5832 brings the setscrew.

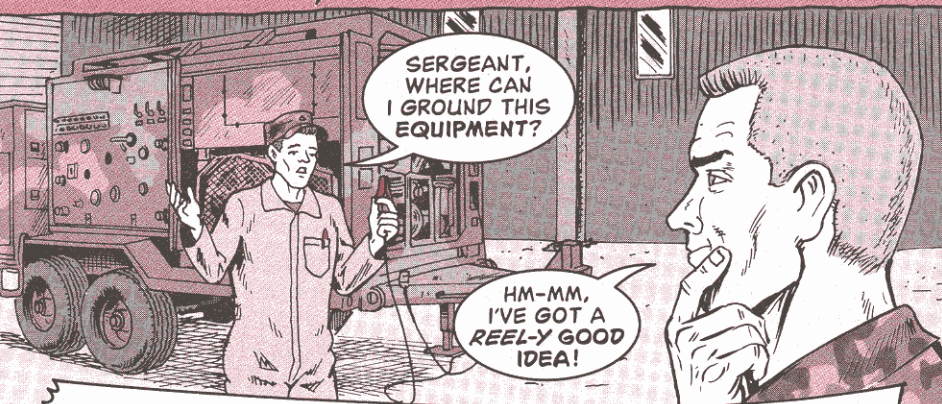
● Press the screen evenly around the rim with your thumb or finger. That'll seat it firmly in the slot on the mouthpiece.

● If you use a screwdriver or knife to remove the screen, be careful not to cut or damage it. You'll lose the protective seal.

When you're not using the screen, tape it to the side of the TA-312, between the phone and the carrying case. That way it won't get lost.



Seeking Better Ground

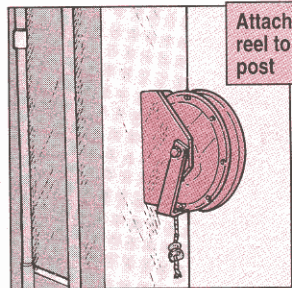


Dear Editor,

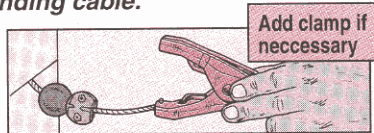
Sometimes it's hard to find a good ground in the motor pool. You can't drive a ground rod through concrete and a grounding connection may not be handy.

We turned the motor pool building itself into our ground with a static ground reel from a tank and pump unit.

You can usually scrounge up a reel at the DRMO. If not, new ones are NSN 2540-00-930-5303.



Bolt the reel to a metal post that runs from the floor to the roof and is central to where you work. Add a clamp, NSN 5999-00-134-5844, if needed, on the end of the reel cable. You now have 50 feet of grounding cable.



But don't use your new grounding cable until the post safety officer checks it out. Better safe than sorry.

SGT Art Tousignant
Schofield Barracks, HI

FROM THE DESK OF THE Editor

I think your suggestion has grounds for approval. Good job.

Camouflage ...

A WEIGHT PROBLEM?

Snow and cold don't mix well with camouflage nets and poles. The fiberglass poles shatter easily when they're cold soaked and bent under the weight of snow.

The snow could bring your camouflage net down on top of your equipment. Shake it off to keep your camouflage in place.

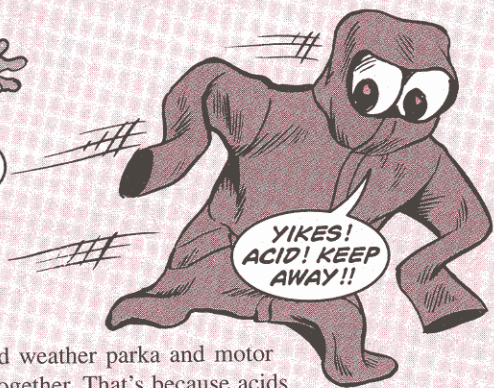
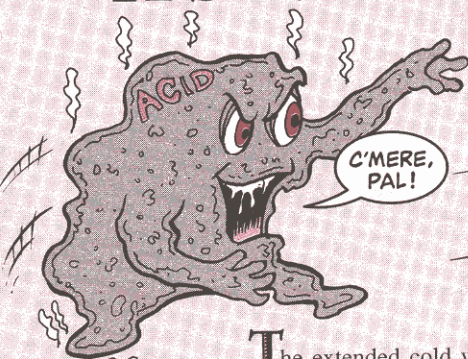
Hold the Ice

To help keep the water in 5-gal water cans from freezing, use insulated covers, NSN 7240-00-125-9061. Your authority for ordering the cover is Appendix A of CTA 50-970.

Then fill cans no more than three inches from the top and set them on pallets or planks. **Never** heat a frozen can—the plastic will melt.



IT'S NOT COVERALLS



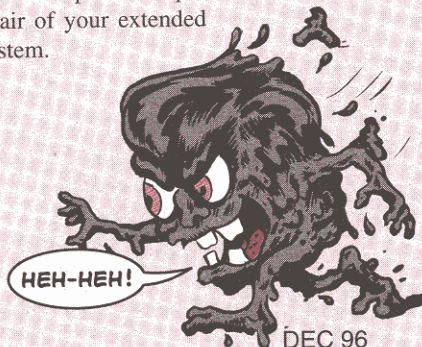
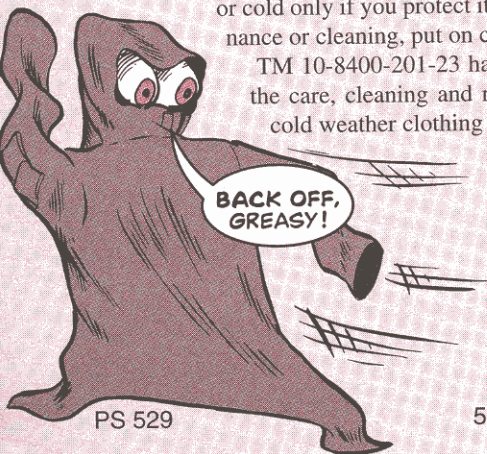
The extended cold weather parka and motor pool work don't go together. That's because acids and grease ruin the parka. Never wear the parka in place of coveralls.

Battery acid kills parkas because acid damage can't be repaired. You'll have to get a new parka because the acid continues to eat the parka material. Use NSNs 8415-01-228-1306 to -1322 for ordering parkas. TM 10-8400-201-23 has size charts.

Grease is another parka killer. Once grease gets on your parka, it won't come off because the parka can't be washed at a high enough temperature to dissolve the grease.

Remember, your parka will protect you from the rain or cold only if you protect it from damage. For maintenance or cleaning, put on coveralls.

TM 10-8400-201-23 has the complete scoop on the care, cleaning and repair of your extended cold weather clothing system.



Keep the Pressure On

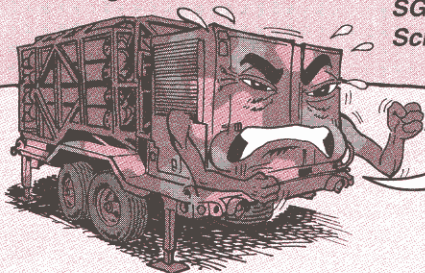
Dear Editor,

Pushing salt water through your ROWPUs takes almost twice the pressure that fresh water does. That pressure cracks the O-rings in the pressure tubes. As the O-rings crack, the ROWPU has a harder time building up the pressure to operate. Eventually, it can't.

We've kept up the pressure by replacing the O-rings in all eight endplates annually. It's a good idea for all ROWPU units, but especially those processing salt water. The O-rings are cheap and replacement doesn't take that long. The NSNs for the O-rings are in the TM for your ROWPU model.

We've also found that putting a dab of silicone lubricant, NSN 6850-00-880-7616, on the O-rings helps them slide on easier and last longer.

SGT Art Tousignant
Schofield Barracks, HI



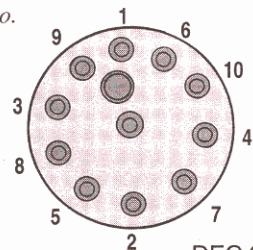
NNGGH!!
I THINK I NEED
NEW O-RINGS IN
MY PRESSURE
TUBES!

FROM THE DESK OF THE *Editor*

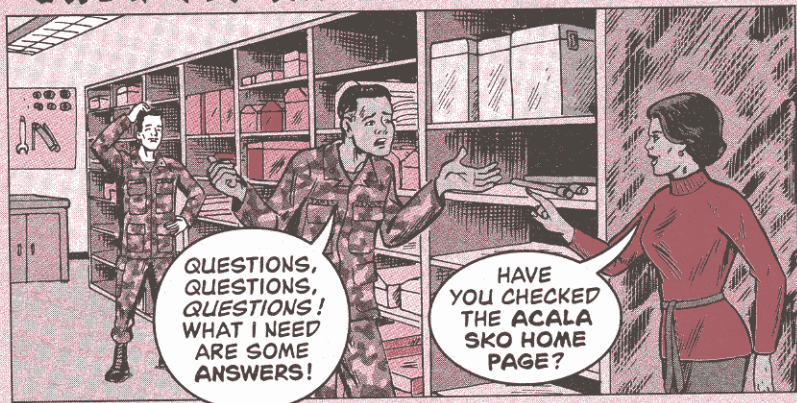
Replacing the O-rings annually will prevent surprises in the field. There are a couple of things, however, repairmen need to remember:

1. The end plates sometimes aren't interchangeable. Trying to force on the end plate can crack the fiberglass on the tube's studs. That's an expensive fix. When you take off the end plates, mark where they go.

2. To install the end plates, use a torque wrench that measures lb-in—there's one in the repairman's tool kit. It's important that the nuts are given no more than 65 lb-in torque. More torque cracks the tube. Tighten the nuts finger tight, then torque the nuts in this order to prevent unequal torque that also cracks the tube:



Show Me the Way To Go Home



Want to know more about tool sets, kits and outfits (SKOs) managed by the Armaments and Chemicals Acquisition and Logistics Activity (ACALA)?

Try browsing the ACALA SKO Team home page on the World Wide Web. Here's the address:

<http://www-acala1.ria.army.mil/acala/chem/ctt/cttspoc1.htm>

The home page lets you send e-mail directly to the maintenance manager or item manager of your SKO. It also has a "What's New" page that lists new supply catalogs, maintenance advisory messages, safety-of-use messages and other tool tidbits.

P-D-680 . . .

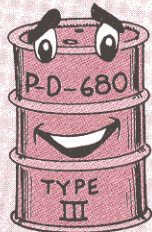
Get Type III

If you use P-D-680 for general cleaning in your maintenance operations, order the improved Type III.

Type III is not as flammable or as toxic as the older types. So it is a little less effective as a cleaner and takes longer to evaporate.

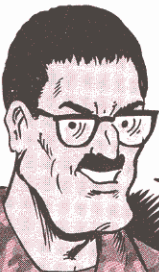
Get a 5-gal can with NSN 6850-01-331-3349 or a 55-gal drum with 6850-01-331-3350. These NSNs aren't on the AMDF, so order them on a DD Form 1348-6.

You still must wear solvent-resistant clothing and gloves, and a face shield or goggles when using P-D-680. If your TM specifically calls for Type I or Type II P-D-680, of course, you should use it instead of Type III.



ULLS...

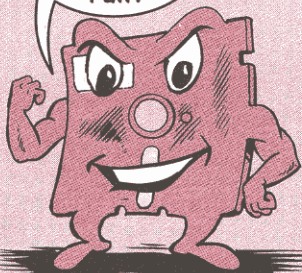
Read 'em and Weep!



ULLS OPERATORS, IF YOU'VE HAD THE SAMS-1 FOLKS TELL YOU THEIR COMPUTER CAN'T READ YOUR DISK, TRY THESE SOLUTIONS.

USE DOUBLE-SIDED, DOUBLE-DENSITY DISKS, NSN 7045-01-173-4574. MOST SAMS OPERATE ON THE TACCS COMPUTER, WHICH READS THIS DISK BEST.

DOUBLE
YER DENSITY,
DOUBLE YER
FUN!



IF YOU USE ANY DISKS OTHER THAN NSN 7045-01-173-4574, MAKE SURE THEY'RE UNFORMATTED DISKS BECAUSE THEY MUST BE FORMATTED ON THE ULLS COMPUTER. THEN, WHEN YOU DOWNLOAD THE WO/INOP DATA, THE SAMS COMPUTER CAN READ THE INFORMATION.

STOP! I'M
PREFORMATTED!



RUN
A CHECK DISK
(CHKDSK) PROGRAM
TO BE SURE THE
DISK IS GOOD. IF
THE DISK HAS BAD
SECTORS, THE SAMS
COMPUTER MAY
NOT BE ABLE TO
READ IT.



Opening and Changing Accounts



PROCEDURES CHANGED? BUT I NEED PUBS NOW!

KEEP YOUR PUBS ACCOUNT OPEN AND UPDATED WITH THIS INFO.

Having the right pubs on hand is important to your unit's mission.

Many of the procedures for opening a pubs account, and for adding and deleting pubs, have changed. To make sure you still get the pubs you need, get familiar with this new process.

Opening An Account

The first thing you need is a pubs account number for your unit. Get it by sending in DA Form 12-R through your installation publications control officer. If you're not supported by an Army installation, send the form through your MACOM publications control officer to:

**Commander
US Army Publications Distribution
Center-St Louis
1655 Woodson Rd
St Louis, MO 63114-6181**

If you need assistance with the DA Form 12-R, call the pubs center at DSN 693-7305 extensions 266, 259 or 288;

or (314) 263-7305 extensions 266, 259 or 288.

After you get a pubs account number, you can receive new and revised pubs by submitting DA Form 12-99-R.

If you know the pubs you need, you can send the 12-99-R form along with the 12-R form. This will speed your initial distribution of pubs.

Get DA Pam 25-30

One pub you need for sure is DA Pam 25-30, Consolidated Index of Army Publications and Blank Forms. It has the 12-series form and block number you need to order any other pub.

You can read DA Pam 25-30 on microfiche, CD-ROM or the Internet using the pubs home page address:

<http://www-usappc.hoffman.army.mil>

Fill out highlighted blocks to get pubs account...

DA Form 12-R

FORM NUMBER	BLOCK NUMBER	QUANTITY REQUIRED	FORM NUMBER	BLOCK NUMBER	QUANTITY REQUIRED
12-34-E	0312	10	12-		
			12-		
			12-		

...or make changes

DA Form 12-99-R

Resupply

To replace lost or worn-out pubs, you need to transmit an automated DA Form 4569. The pubs center no longer accepts a hard copy or fax. Now you need to go through the Internet site or through the STARPUBS DDN Interface System (SDIS) to replace pubs.

Get information about SDIS by calling DSN 221-6238 or (703) 325-6238.

Internet and Bulletin Board

Once you have an account number, you can use the Internet or publications bulletin board to request pubs, update your 12-series forms, change your mailing address or request a DA 12-series printout of the pubs you've requested.

If you don't have Internet capability but do have a communications modem, you can call the publications bulletin board on DSN 221-6736 or (703) 325-6736.

Set your communications modem for no parity, eight data bits, one stop bit, and 2400 baud speed.

Emergency Orders

If you need a specific pub in a hurry, you can use the Telephone Ordering Publications System (TOPS). It's available for all pubs account holders.

TOPS is an automated system for touch-tone telephones. Once you access the system, you'll make selections

with the interactive voice system. The menu offers three choices:

1. **ORDER PUBLICATION** allows you to place an emergency publications order.
2. **GENERAL INFORMATION** gives you updates on any changes to the emergency ordering process.
3. **CUSTOMER ASSISTANCE** allows you to speak directly to a customer service person.

To access TOPS, call DSN 221-9224 or (703) 325-9224.

When you call to order, be sure you have your pubs account number and ZIP code handy. You'll also need a publication identification number (PIN) for each pub you want to order.

The PIN consists of nine numbers. The first six are from DA Pam 25-30 and the last three indicate whether you want the basic publication or a change.

Say that you need to order the operator's manual for your M939-series trucks (TM 9-2320-272-10). DA Pam 25-30 shows 051550 for the PIN. But, you need the basic manual and all six changes. You'd key 051550000 into TOPS. The 000 at the end allows the system

to ask if you want just the basic or the basic and all changes.

Suppose you only need Change 6. You'd key in 051550006.

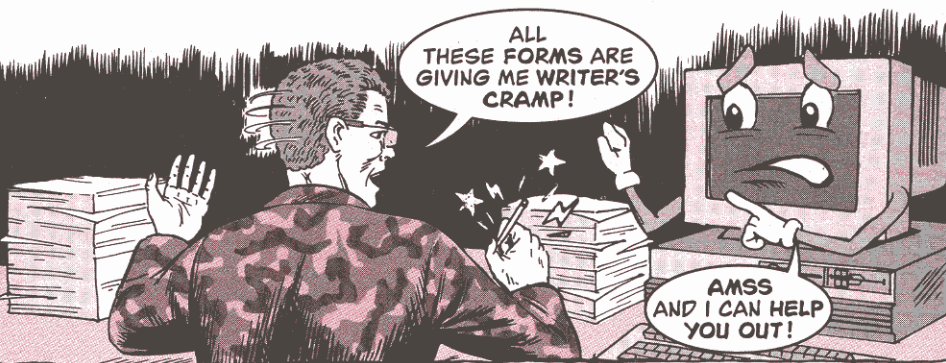
After you've entered all the information for that pub, the system will ask if you need to order another pub. If so, follow the same process until you're finished.



AMSS...

Status Reporting Automated

The automated Army Materiel Status System (AMSS) is now a reality for units tracking ground and missile equipment. Changes to AMSS were added to ULLS-G Software Change Package 6. The information on DA Forms 2406 and 3266-1 (for missiles) can now be processed through the AMSS.



Until this system gives complete missile information, however, you still need to send in a manual DA Form 3266-1 for missile reportable systems in Table B-4 of AR 700-138.

With AMSS, your commander can monitor maintenance and supply transactions on a piece of equipment from the time it comes in for repair until it is returned to a fully mission capable status. That way, mechanics can be assigned to where they're needed most.

AMSS also collects, compiles and reports materiel status data at unit level.

Status information accumulated at the battalion level is sent through SAMS-1 to the Materiel Management Center (MMC) level SAMS-2 and SAMS I-TDA at the end of the report period. They, in turn, send the information electronically to the USAMC Logistics Support Activity (LOGSA).

In addition, AMSS accumulates NMC supply and maintenance time for all reportable end items, systems and subsystems.

AMSS also gets DS level NMC data from SAMS-1.

When ULLS-S4 is fielded, AMSS will also consolidate the "real time" status information received from subordinate units. This will give the battalion commander daily information in three roll-up reports.

Want to know more? Get a videotape on AMSS from your local Training and Audiovisual Support Center using PIN 710306.

SMART's the Way to Go

When you come up with a better way to do a maintenance task or a way to save time and money, think SMART!

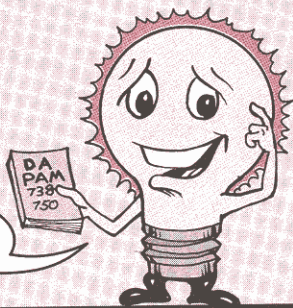
The Supply and Maintenance Assessment Review Team (SMART) is looking for ways to improve maintenance, supply, transportation, readiness...anything that involves logistics.

Your idea could put a handsome chunk of change in your pocket. One SMART suggestor's suggested award was \$6,883 for his idea to improve the latch for the aft pylon fairing on the CH-47D helicopter. (See pages 42-43, PS 520).

Put your idea on a DA Form 5533 or any piece of paper. Describe the current procedure and how you would improve it. Include your name, address and telephone number. Send your suggestion to:

SMART
USACASCOMFL
ATTN: ATCL-CFI-S
3901 A Ave, Suite 230
Ft Lee, VA 23801-1809

FOR MORE
INFORMATION ON SMART,
SEE CHAPTER 10 OF DA
PAM 738-750.



STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

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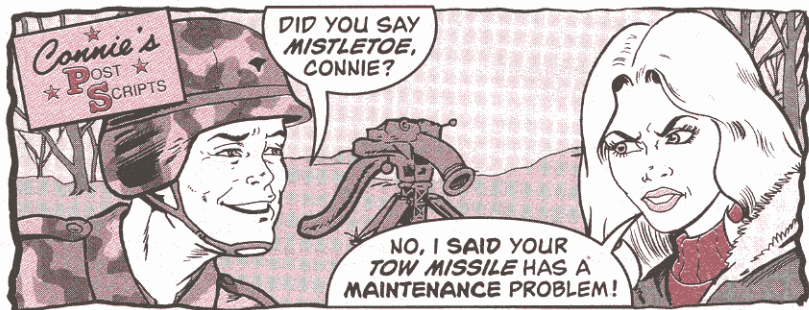
Editor: Jerome J. Hill

Known Bondholders, Mortgagees, and Other Security
Holders Owning or Holding 1 Percent or More
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The purpose, function and nonprofit status of this
organization and the exempt status for Federal
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preceding 12 months.

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Copies Not Distributed		
Office use, left over	250	250
Total	113,419	108,733



Filter Kits for Multifuels

You must order *two* oil filter kits for routine PM on multifuel 2½-ton trucks. Kit, NSN 4330-00-884-4801, comes with only one filter in it.

MLRS Cab Distribution Box

Before you turn in the MLRS cab distribution box for repair, remove the air inlet screen, NSN 2510-01-264-0153. The screen is part of the personnel heater system, not the distribution box. You won't get a screen back with a new or repaired box.

Dust Boot with Zipper

Use NSN 2530-00-832-7123 to get the dust boot with a zipper for your M939-series truck's front axle. The NSN shown in Fig 111 of TM 9-2320-272-20P and Fig 172 of TM 9-2320-272-34P-1 gets a boot without a zipper.

M809 Truck Pliers

Use NSN 5120-00-223-7397 to get the 8-in pliers in your 5-ton truck's basic issue items list. The NSN shown for Item 10 on Page B-7 of TM 9-2320-260-10 is wrong.

M44-Series Hose Clamp

Save money when you need a windshield wiper hose clamp for your 2½-ton truck. Order NSN 4730-01-109-8001 and pay only pennies. The clamp shown as Item 3 in Fig 245 of TM 9-2320-361-20P goes for \$5.

Lithium Battery Caution

Recently the BA-5590 and BA-5800 lithium batteries have had some problems. If you use either one in your electronics equipment, you need to implement the safety recommendations in CECOM Ground Precautionary Messages 96-012 and -013. To get them, see your CECOM LAR or call DSN 992-0084 or (908) 532-0084. Ask for Ext 6437. Or send E-mail to klimek@doim6.monmouth.army.mil

Free Equipment!

The RETROEUR program for excess equipment coming back from Europe is drawing to a close. Get your request in before 31 Jan 97 for this Class II or Class VII non-rolling stock, such as individual supplies, tentage, and tool kits. Items are even shipped to you free. For more information, call ATCOM at (314) 263-5276 or DSN 693-5276.

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

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

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Tool #1...

A black and white illustration of a mechanic in a workshop. The mechanic is kneeling on the floor, looking thoughtful with his hand on his chin. He is wearing a dark cap and work clothes. In the background, a car is elevated on blue jacks. A large tire is visible on the left. Various tools and supplies are scattered on the floor, including a blue can, a small jar, and some rags. A red toolbox is open on the right, with a notebook resting on it. A thought bubble above the mechanic contains the text "HM-MMM... WHAT'S NEXT?".

HM-MMM...
WHAT'S NEXT?

...IS
YOUR TM!

NEVER TRUST YOUR MEMORY!