Issue 595

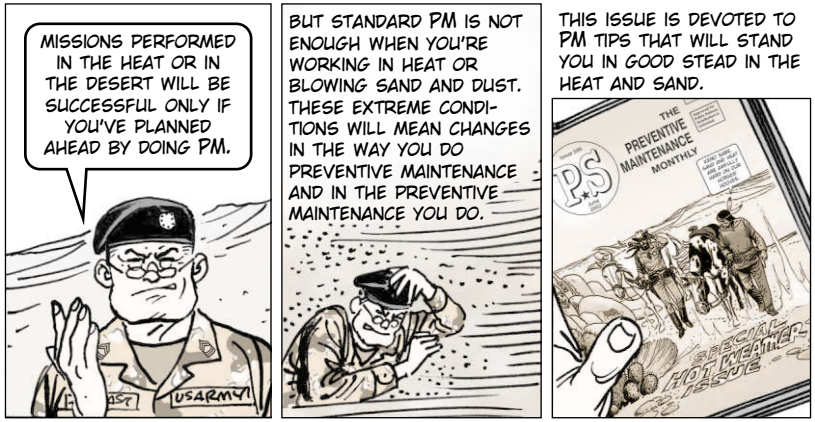
PS

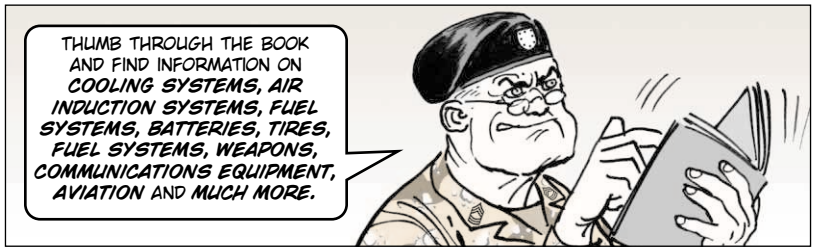
June
2002

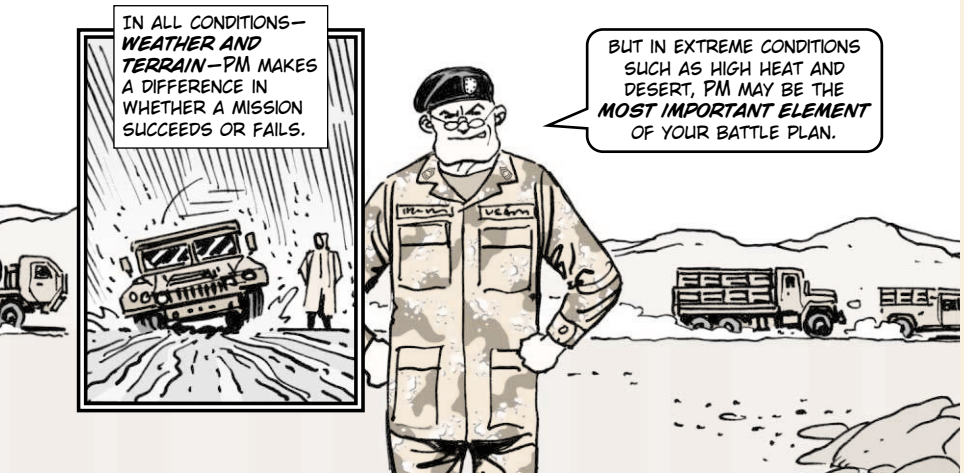
THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-595

KEEP YOUR EQUIPMENT 'COOL' IN THE HEAT







PS THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-595, 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.

ISSUE 595 JUNE 2002

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-LP)
5307 Sparkman Circle
Redstone Arsenal, AL 35898-5000

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ERIC K. SHINSEKI
General, United States Army Chief of Staff

Official:
JOEL B. HUDSON
Administrative Assistant to the Secretary of the Army
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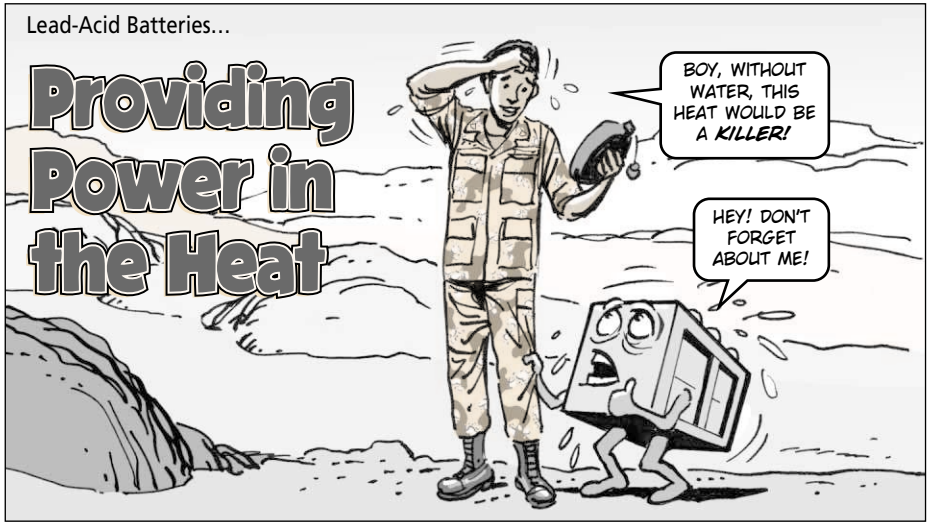
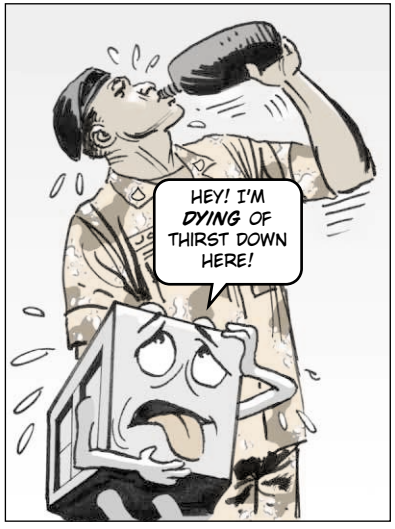
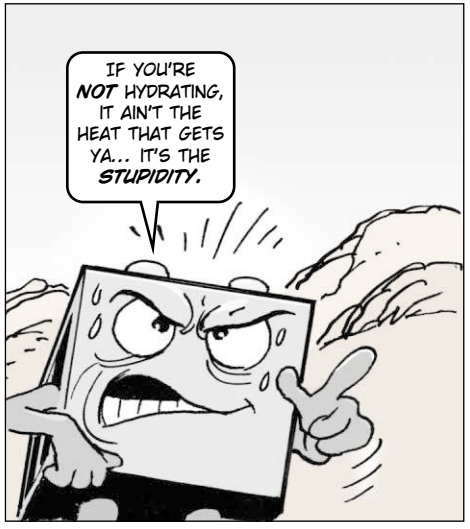
Lead-Acid Batteries...

Providing Power in the Heat





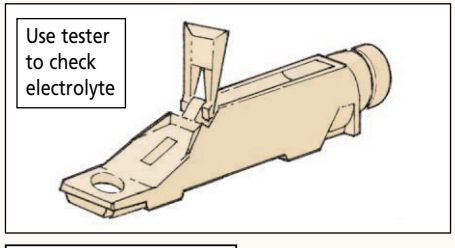


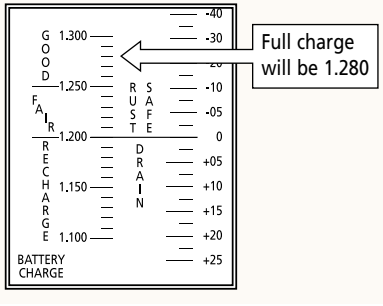
Working in the heat means drinking lots of water so your body stays hydrated. So… you drink lots of water. Working in the heat also affects the water in lead-acid batteries. So… you have to keep them hydrated, too.

Where Does It Go?

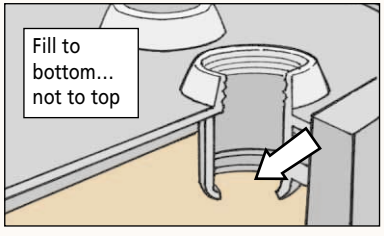
Normal charging causes some water in the electrolyte to evaporate. But overcharging drives off much more water. Add in the evaporation caused by high temperatures and your batteries can go dry quickly.

Just adding water won't always be enough to save your batteries. First off, the batteries need to be checked by your mechanic using the optical battery/antifreeze tester, NSN 6630- 00-105-1418. A fully-charged battery should give specific gravity readings of 1.280.





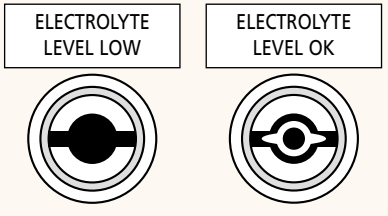
Then operators should eyeball the electrolyte levels at least once a day if the temperature stays above 90°F for a week. The level should be at least ½ inch above the top of the battery plates. If the filler hole has a lip or an indicator at the bottom, it should be filled to that.



Adding Just Enough

More is not better, though. If batteries are filled to the rim, the electrolyte will boil out through the vent caps when the battery charges. Use the battery filler syringe, NSN 6140-00-808-7325, to remove any excess.

Make sure, too, that the vent caps are open so that gases can escape. If the vents are clogged, the battery can explode.



THIS BIRD'S EYE VIEW SHOWS EYE-SHAPE

If you find a battery that needs water, let your mechanic know ASAP. The best water is distilled water. NSN 6810-00-682-6867 gets a gallon and NSN 6810-00-356-4936 gets a 5-gal jug.

Another good choice is battery water. It has no more than 100 parts per million of impurities, and costs a little less than distilled water. Get a gallon with NSN 6810-00-286-3783 and a 5-gal jug with NSN 6810-00-297-9540.

PS MORE

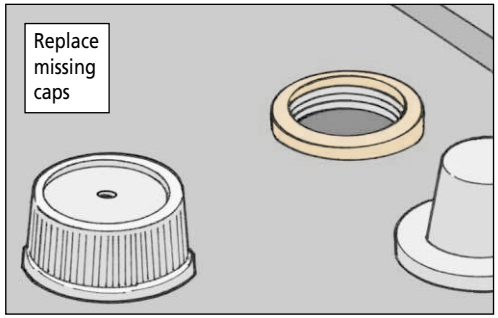
Ground water has minerals in it that can kill batteries, so don't use it. If there's no other choice, plain drinking water (not mineral water) can be used.

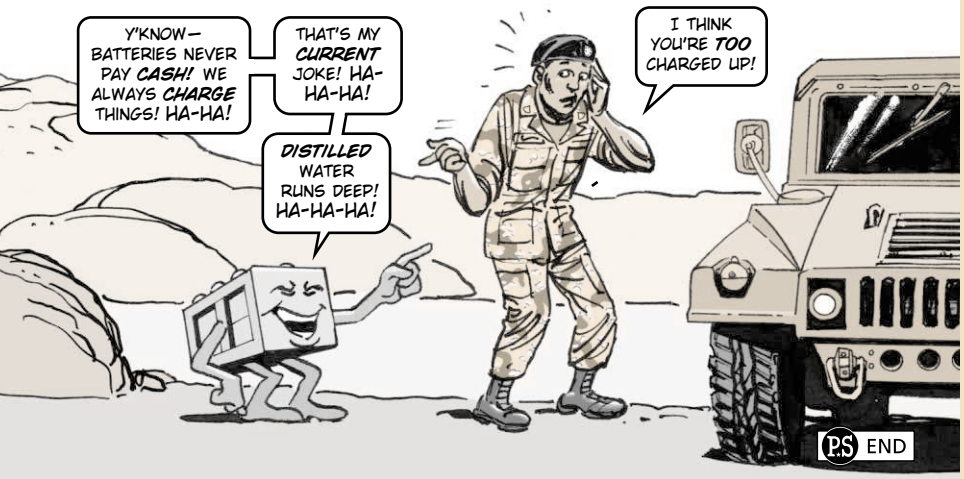
Use a battery syringe or a battery gravity filler, NSN 6140-00-635-3824, for precise filling and help in avoiding overfilling. Both are in the No. 1 Common shop set.

Tight and Right?

Make sure the caps are in place on the fill holes. If you need caps, ask your mechanic for them from an unserviceable battery.

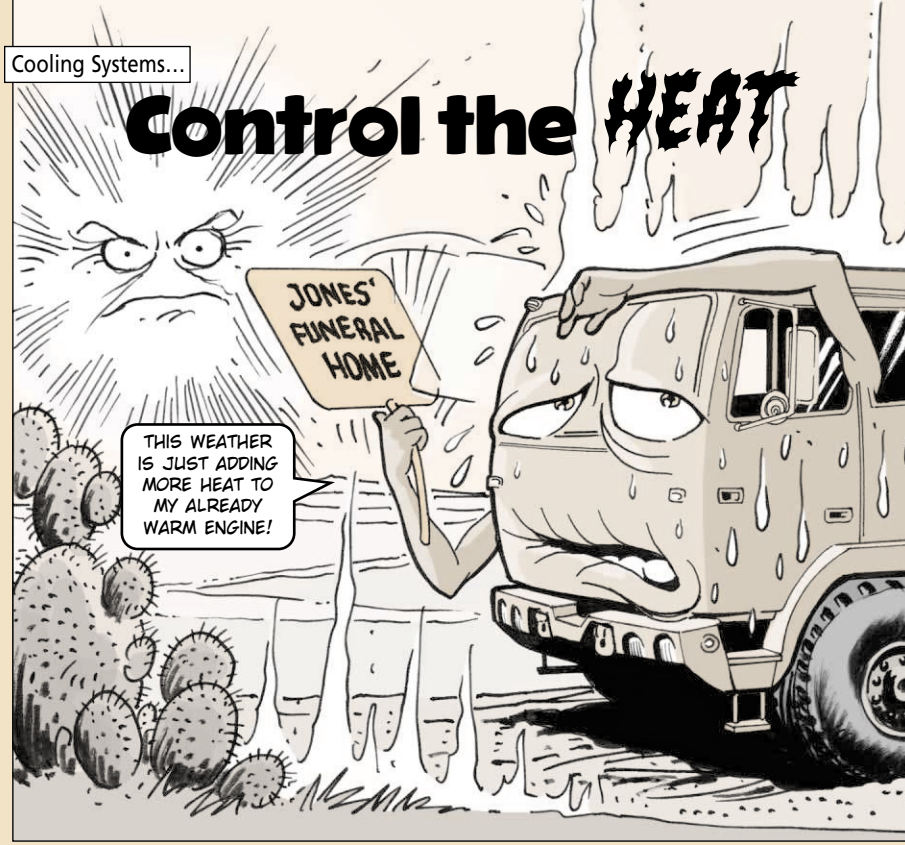
Mixing batteries of different types is OK, as long as you don't use maintenance-free batteries with the older style. It's best to keep 6TLs, 6TLFs and 6TMFs together.

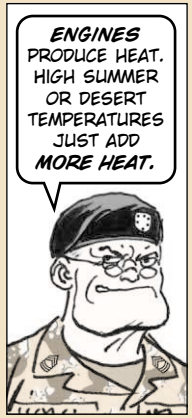


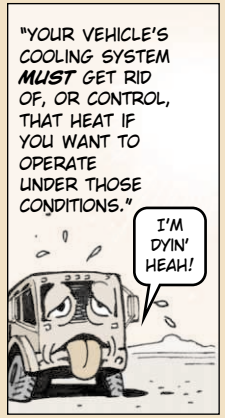


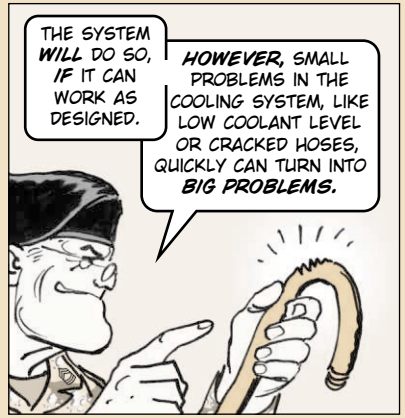
Cooling Systems...

Control the HEAT

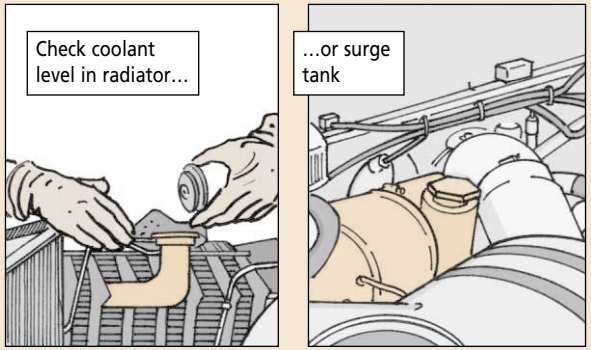




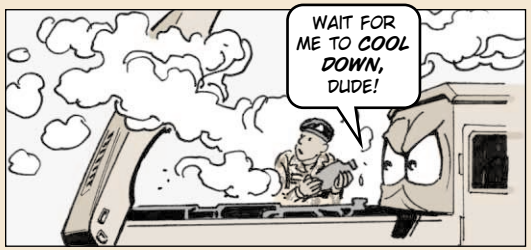




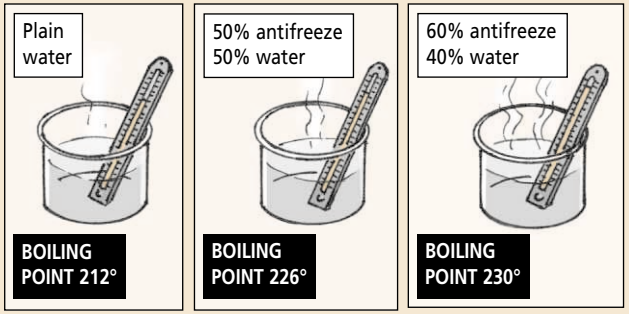
"CHECK THE COOLANT LEVEL ***OFTEN.*** BEFORE YOU ROLL, WHEN THE ENGINE IS STILL COOL, MAKE SURE THE COOLANT IS UP TO THE MARK. IF IT'S LOW, ADD COOLANT TO BRING THE LEVEL UP. NEVER OVERFILL, THOUGH. WHEN THE ENGINE HEATS UP, THE EXTRA COOLANT WILL OVERFLOW."



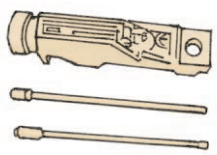
"ADD COOLANT ***ONLY*** WHEN THE ENGINE IS COOL. ADDING COOLANT TO A HOT ENGINE CAN CRACK THE ENGINE BLOCK OR BURST A SEAM IN THE RADIATOR."



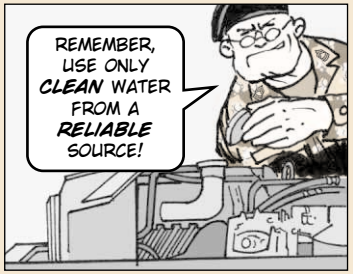
"A 60-40 MIX IS ***BEST,*** BUT MAINTAIN ***AT LEAST*** A 50-50 MIX OF ANTIFREEZE AND WATER TO RAISE THE BOILING POINT OF THE COOLANT SO IT WON'T BOIL AWAY LIKE PLAIN WATER.



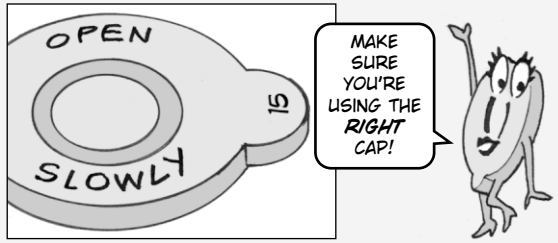
"CHECK THE PROTECTION LEVEL WITH TESTER, NSN 6630-00-105-1418."



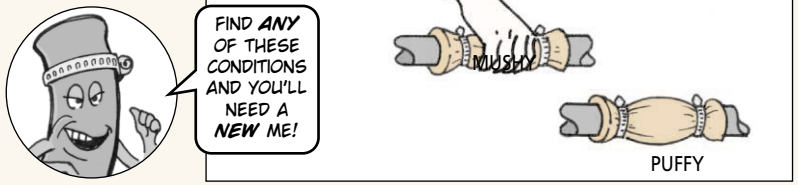
"USE DISTILLED WATER, NSN 6810-00-356-4936, IN RADIATORS IF IT'S AVAILABLE. IF NOT, USE POTABLE WATER. GROUND WATER CONTAINS MINERALS THAT WILL CLOG THE RADIATOR."



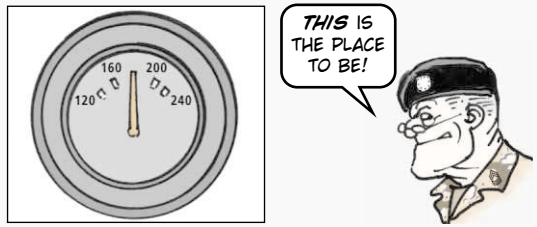
"WHILE YOU'RE ADDING COOLANT, TAKE A CLOSE LOOK AT THE RADIATOR CAP. MAKE SURE IT IS IN TOP-NOTCH CONDITION AND IS THE RIGHT CAP FOR YOUR ENGINE. CHECK THE PRESSURE RATING ON THE CAP WITH THAT LISTED IN YOUR TM."



"CHECK FOR WETNESS AROUND THE RADIATOR OR HOSES. WETNESS MEANS A LEAK. FEEL THE HOSES AND REPLACE ALL THAT ARE MUSHY, CRACKED OR LEAKING."

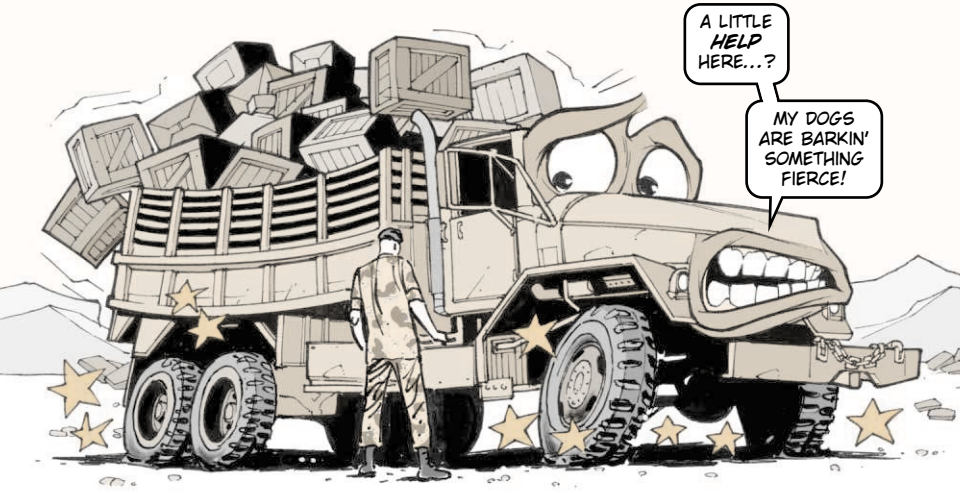


"DURING OPERATION, KEEP AN EYE ON THE TEMPERATURE GAUGE. IF IT GOES ABOVE THE NORMAL OPERATING RANGE NOTED IN YOUR TM, SHUT DOWN AND FIND OUT WHY."



Tires...

KEEP THEM ROLLING WITH PM



Tires catch a lotta grief when you drive in the desert. Heat and terrain team up to deliver a one-two punch that can KO your mission—unless you are prepared by PM.

Cut the Heat

During normal operations in an average climate, tires get hot as they flex under a load. But they have a chance to cool off when the mission is done. When the air temperature is high, the tires can't cool off, and the excess heat weakens them.

Since you can't do anything about the outside temperature, you can help by not overloading the vehicle. An overloaded vehicle creates extra heat on the tires.

Take that heat off the tires by reducing the load. Plus, a reduced load will reduce the chances that you'll bog down in sand. This goes double for trailers you're pulling. Keep them loaded as lightly as possible.

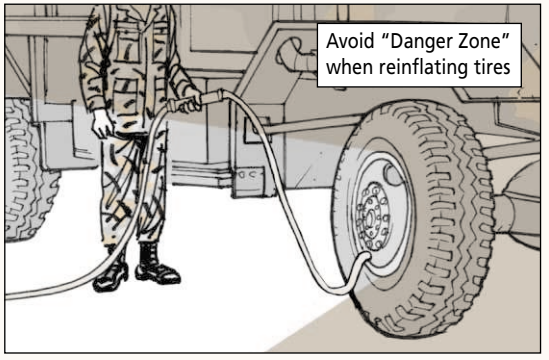
In Sand?

Some vehicle operator's manuals list a lower tire pressure for driving in sand. A lower tire pressure gives more flotation and traction in sand. However, be sure to add air back to those tires before you drive on pavement.

TIRE PRESSURES FOR HEMTTs (for example)

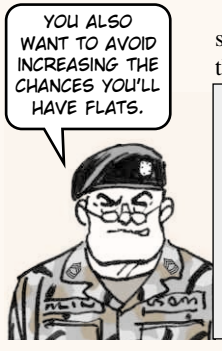
	Highway	Cross Country-Dry	Cross Country-Wet	Sandy Terrain
Front (all models)				
Standard Tire	60 psi (414 kPa)	35 psi (241 kPa)	20 psi (138 kPa)	30 psi (207 kPa)
Sand tire	60 psi (414 kPa)	NA	NA	25 psi (172 kPa)
Rear				
M977, M978, M983				
Standard Tire	70 psi (483 kPa)	40 psi (276 kPa)	30 psi (207 kPa)	35 psi (241 kPa)
Sand tire	70 psi (483 kPa)	NA	NA	30 psi (207 kPa)

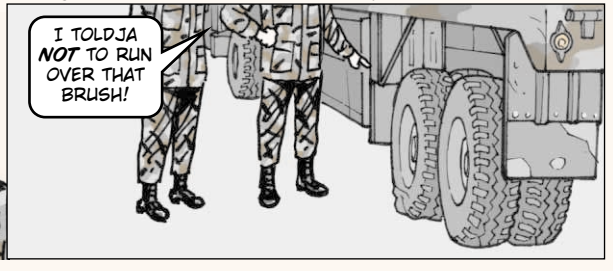
Note that if you must add more than 10-15 psi to the tires you need to use a tire inflator gauge, NSN 4910-00-441-8685. That gives you 10 feet of hose between the gauge and the chuck so you can stand away from the danger zone created by a flying split ring or an exploding tire.



Avoid Flats

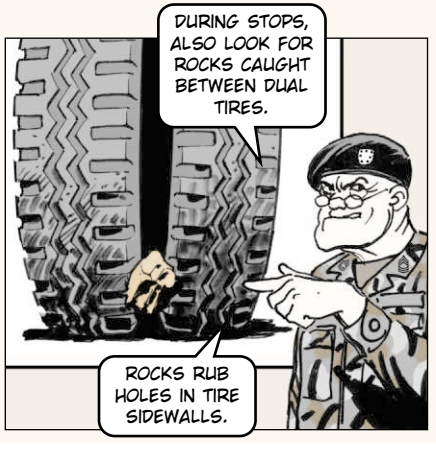
Try not to run over overgrowth or brush that may have spines and thorns that break off in tires and work their way through. You'll have more leaks than you can handle.



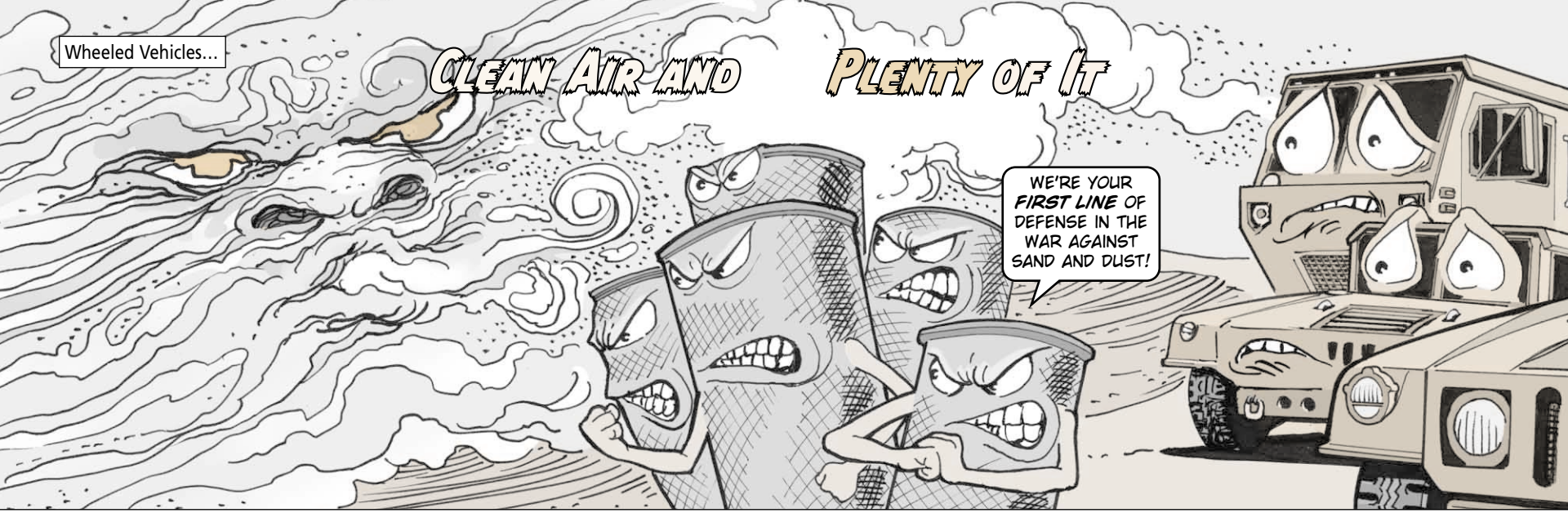


Take it easy moving over rocky, rough terrain. The sidewalls of radial tires are thinner than those of bias tires, and rocks cut them to ribbons. Wheeled construction and material handling equipment are especially prone to tire damage because the mission often requires them to work where the going is rough.

Tubeless tires have a special problem—bead breaking. The bead pulls away from the rim, letting air escape. Bead breaking is caused by traveling over rocky terrain. Check the air pressure in tubeless tires often.



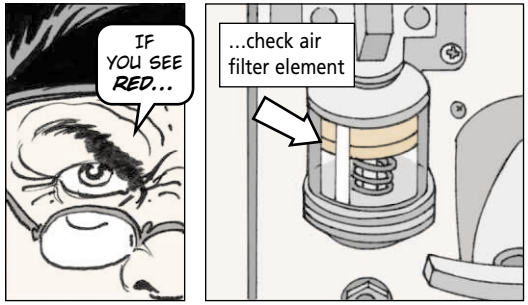
Clean Air and Plenty of It



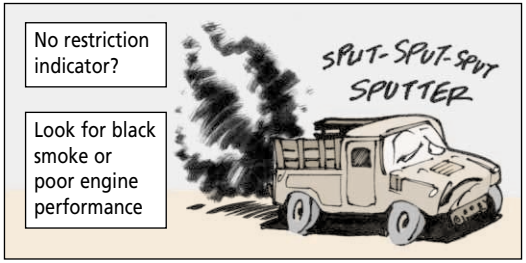
Make sure your air induction system—hoses, inlets, outlets, filter elements—is in good condition from the get-go.

Cracks, tears, holes and loose clamps let sand and dust get into engines.

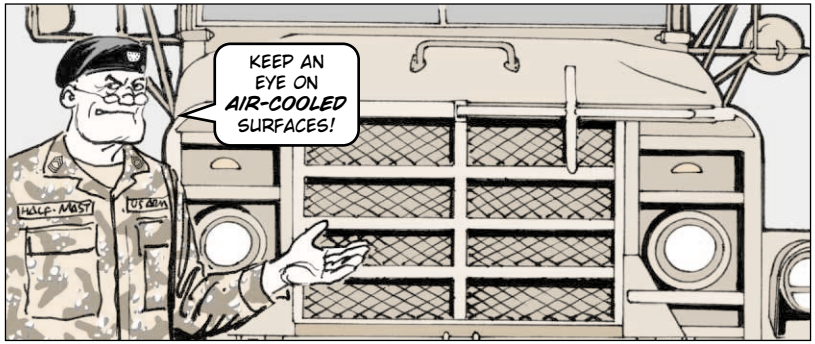
Clean air filter elements often to keep engine performance high. Keep a close eye on the air restriction indicator, if your vehicle has one. Once it turns red, **stop!**

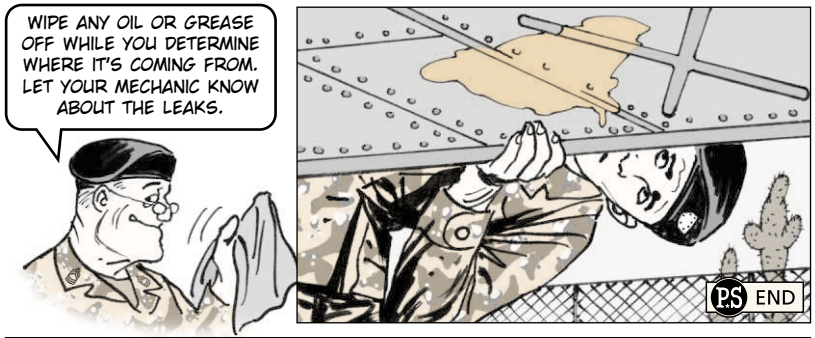


If your vehicle does not have an air restriction indicator, your engine will let you know when the element is clogged. You'll notice poor acceleration, lower power output or heavy black smoke from the exhaust.



For air-cooled surfaces, keep them clean of oil and grease. These surfaces, part of radiators, oil coolers and the like, transfer heat away from the water and oil inside them as air flows past. Oil and grease attract dust and sand. The layer of dust and sand keeps the air from entering and the heat from escaping, which causes engine and transmission damage.





HEMTT Blackout Light

Use NSN 6220-01-094-1440 to order a blackout light for the HEMTT. This light costs less than—and works as well as—the blackout light shown as Item 1, Fig 92 of TM 9-2320-279-24P1.

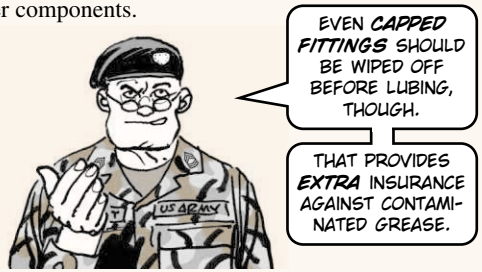
HEMTT Socket Seal and Retainer

Use NSN 5330-01-146-7158 and NSN 5330-01-236-2179 to order the HEMTT steering arm's ball socket retainer and seal respectively. The NSNs shown as Items 10 and 11 in Fig 181 of TM 9-2320-279-24P-1 are no longer good.

KEEP GREASE CLEAN WITH CAPS

Getting all the dirt, mud, and sand off your combat vehicle's grease fittings before lubing is important, crewmen. Using a dirty grease fitting forces dirt and sand in along with the grease. Contaminated lube not only won't do its job, but it can damage bearings and other components.

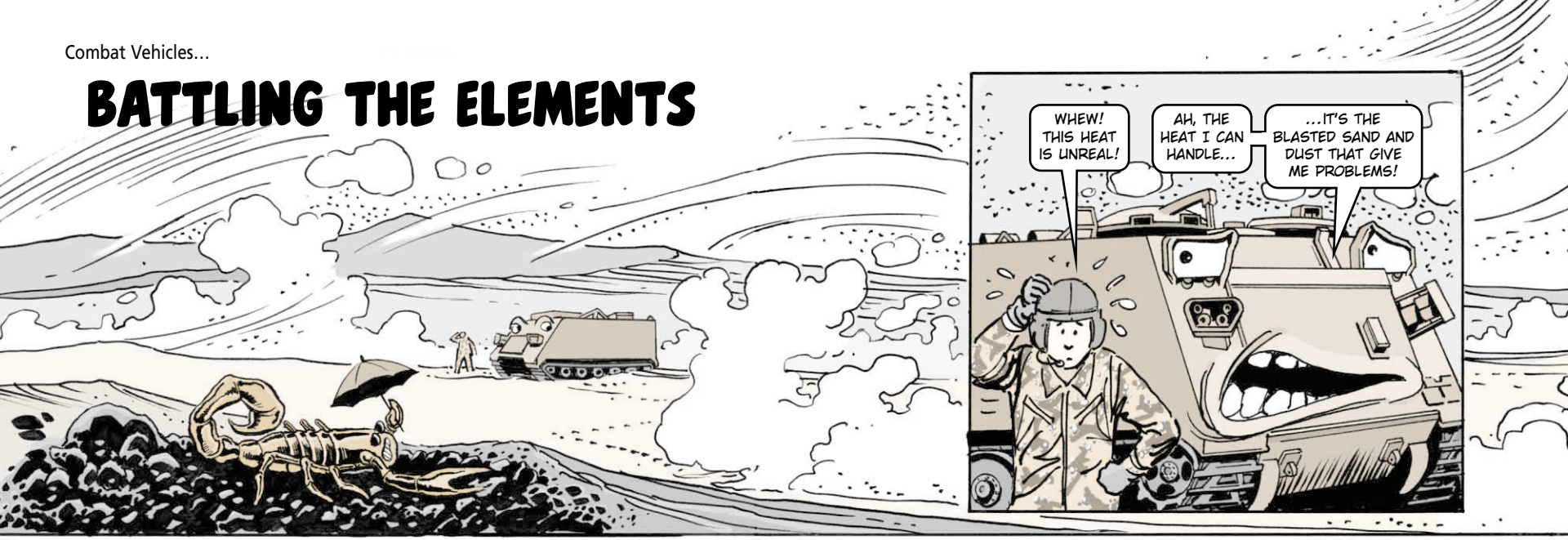
One way to ensure clean fittings is to keep 'em covered. Protective caps, NSN 4730-00-289-8148, do a great job of keeping grease fittings unclogged and dirt-free. So keep plenty on hand and use 'em when doing PMCS.



Bradley TOW Stud

Use NSN 5325-00-174-2882, part number MS27977-37N, to order a new stud for the TOW launcher cover on your M2A2/M3A2 Bradley. The NSN and part number shown for Item 25 in Fig 105 of TM 9-2350-284-24P-2 are wrong.

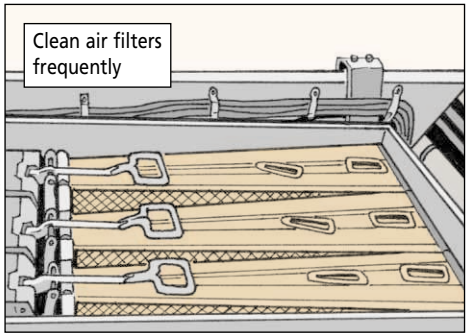
BATTLING THE ELEMENTS



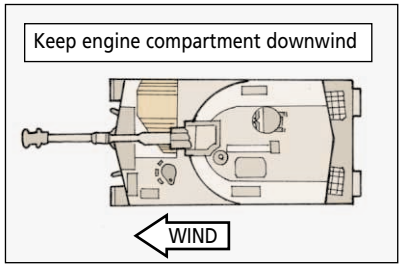
Clean Air

Make sure your air induction system is in good shape. That includes hoses, inlets, outlets, precleaners, and filter elements. Cracks, tears, holes and loose clamps let sand and dust get into engines.

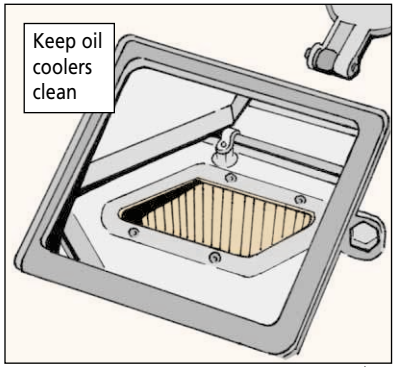
Pay attention to air restriction indicators. Clean air filter elements as often as necessary to keep engine performance high.



Park your vehicle with the engine compartment downwind. That allows the bulk of the vehicle to shield the engine from blowing sand or dust.



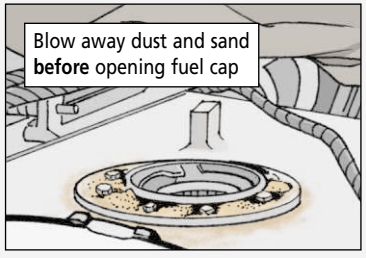
Keep all air-cooled surfaces—oil coolers and radiators—free of oil and grease. These surfaces transfer heat away from the oil and water inside as air flows past them. Oil and grease attract dust and sand like magnets. The heat can't escape and engine and transmission damage are the result.



Clean Fuel

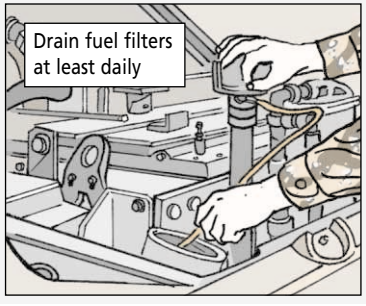
It's critical to keep fuel clean during refueling. Always wipe off the nozzle before refueling. If you suspect there's dirt inside the nozzle, flush it out or take the nozzle off and clean it. Keep the fuel nozzle capped when it's not in use.

Blow away loose dust and sand from the vehicle's fuel filler opening before removing the cap. When the fuel nozzle is in place, use a clean rag to close off any gaps between the nozzle and the fuel filler opening. That keeps blowing sand and dust from getting into the fuel tank. Close the fuel cap tight when you're finished.



No matter how careful you are, some dirt is going to get into the fuel system. That means draining the fuel filters to keep 'em from clogging.

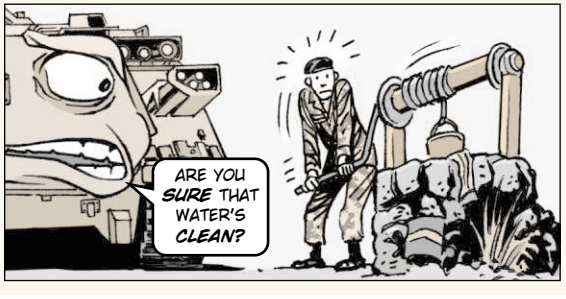
Draining the fuel filters also gets rid of condensation that results from cool nights and hot days. You may need to drain fuel filters more than once a day to keep engine performance high, but they should always be drained at least once a day to keep water from diluting the fuel.



Clean Water

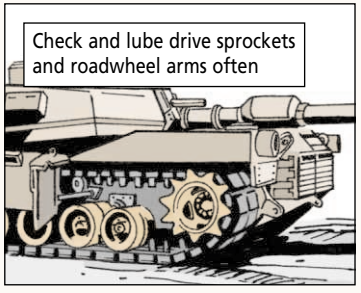
Use only clean water from a reliable source for filling radiators. Local water supplies often contain mineral deposits that will eventually clog radiator cores.

If local water must be used, filter it through a clean cloth before adding it to a radiator. Then, clean and purge the radiator at the next opportunity.



Track Maintenance

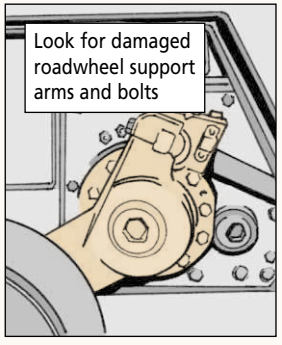
Check drive sprocket and roadwheel mounting bolts before, during and after operation. Sand, rocks and gravel tend to break or damage lube fittings and relief valves. Rough terrain causes hardware to work loose.



Never neutral steer in soft sand. That lets sand build up in the final drive sprockets and can result in a thrown track. Make fast turns wide. Keep short turns slow.

Pay attention to the tracks during at-halt inspections. Check track tension. Look for cracked end connectors and broken link pins.

On tanks, look for damage to the right front roadwheel support arm and sheared mounting bolts on the No. 1 right or left roadwheel arm housing.

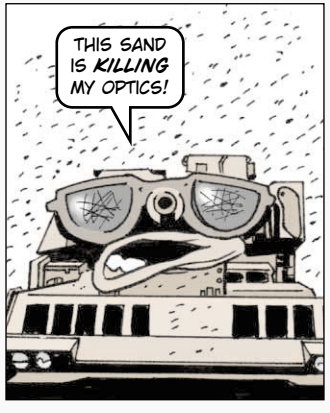


M113-series carriers have more trouble with left rear idler arm bearing burnout. Check often and keep the grease gun handy.

Since you'll be lubing bearings much more often in sandy and dusty conditions, make sure you wipe away any excess lube when you're finished. Grease attracts sand, and combined the two can grind away metal.

Optics Care

Cover glass surfaces when they're not being used. Scouring and etching by sand and dust will ruin them. That's especially true for sighting and fire control equipment.

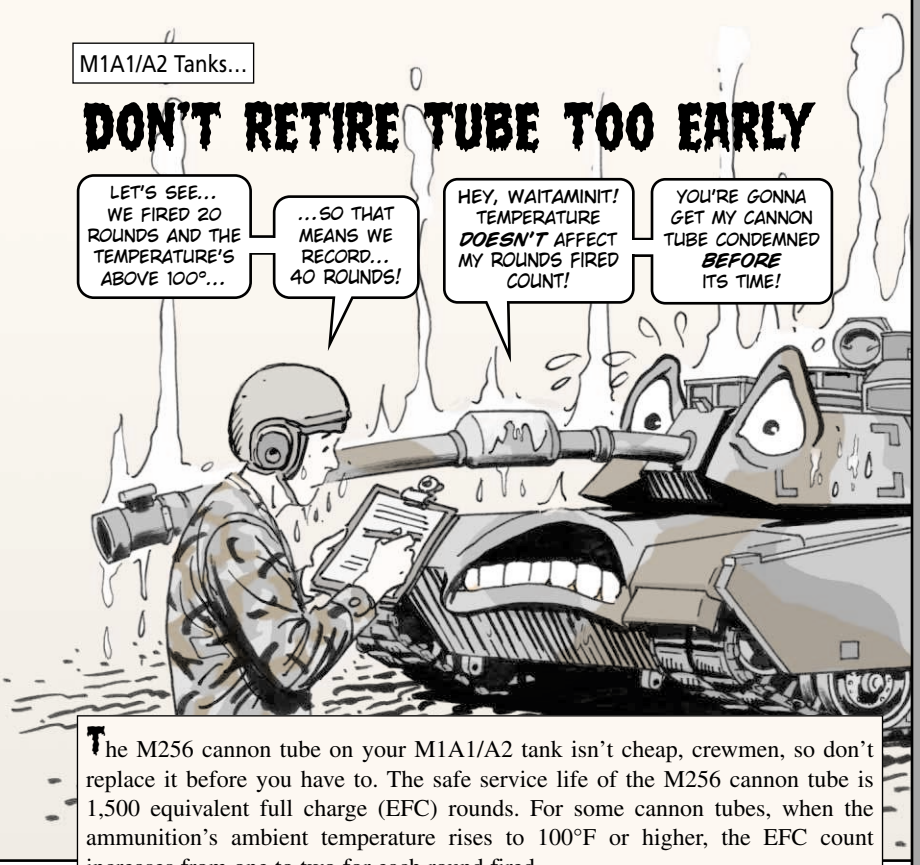


The buildup of dust on these surfaces can also degrade low-light vision. So keep surfaces as clean as possible using the specific cleaners called out in your TMs. Optical lens cleaning compound, NSN 6850-00-227-1887, can be used if your TM does not list one.

During dust or sandstorms, you might want to use self-clinging plastic film to cover optics between missions. NSN 8135-00-043-5331 gets a 100-ft roll of 11½-in wide film.

M1A1/A2 Tanks...

DON'T RETIRE TUBE TOO EARLY



The M256 cannon tube on your M1A1/A2 tank isn't cheap, crewmen, so don't replace it before you have to. The safe service life of the M256 cannon tube is 1,500 equivalent full charge (EFC) rounds. For some cannon tubes, when the ammunition's ambient temperature rises to 100°F or higher, the EFC count increases from one to two for each round fired.

There is no temperature sensitivity for M256 ammunition, so its EFC count remains at one regardless of the temperature. See Page B-5 of TM 9-1000-202-14, *Evaluation of Cannon Tubes,* for the straight scoop.

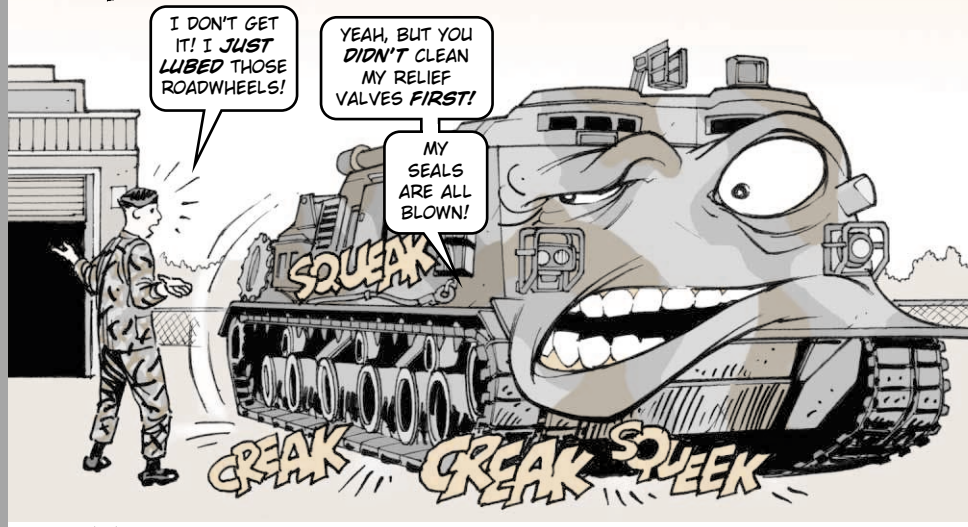
Don't mistakenly enter the wrong number of rounds on the DA Form 2408-4, *Gun Record Card,* just because it's hot outside. If you do, the tube will be condemned too early.

M1A1 MRS O-Ring

Use NSN 5331-00-965-0719 to get improved O-rings for the muzzle reference sensor (MRS) on your M1A1/A2 tank. The old O-rings, NSN 5331-00-724-7902, leak, requiring constant changing of the desiccant. Make a note until Item 10 in Fig 90 of TM 9-2350-264-24P-2 and Item 9 in Fig 79 of TM 9-2350-288-24P-2 can be changed.

M88A1 Recovery Vehicles...

RELIEVE THE PRESSURE



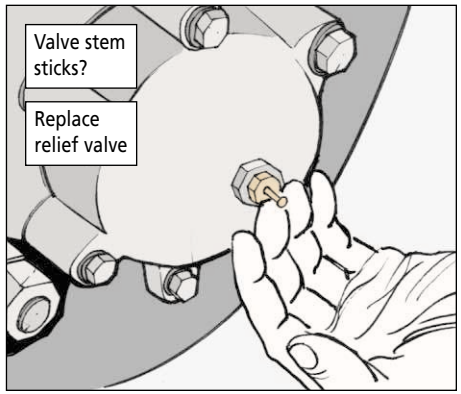
Most people don't work well under a lot of pressure. The same holds true for the roadwheels on your M88A1 recovery vehicle, crewmen.

A roadwheel relief valve that's clogged with crud won't relieve pressure when you pump in new grease. The pressure grows until something gives—usually the hub seal.

When the seal goes, so does the lube. The result is burned-out bearings.

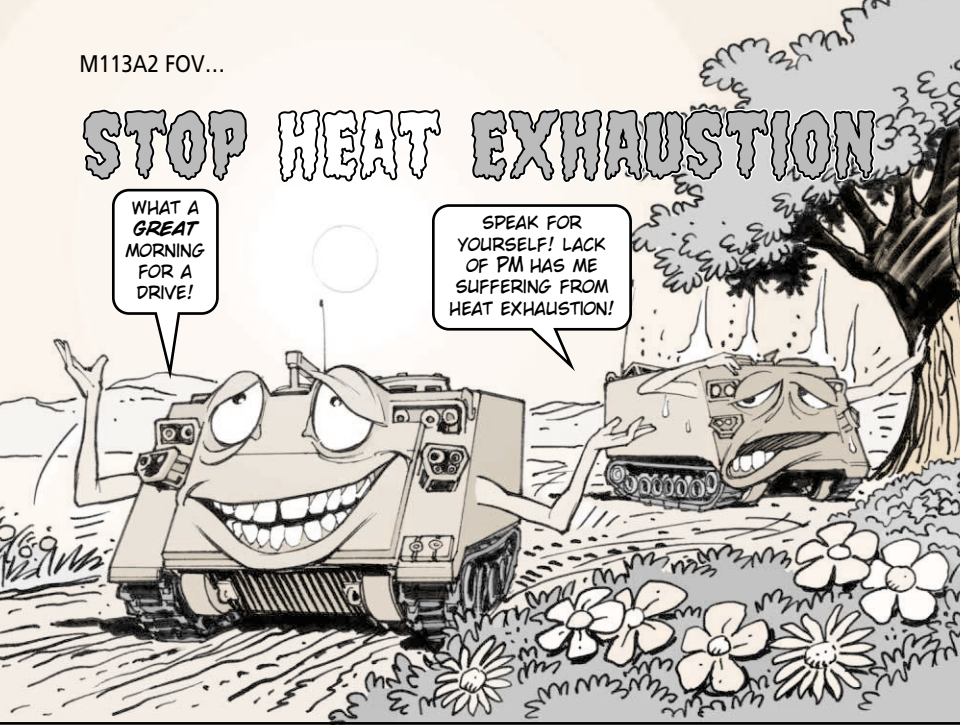
So before adding new grease, use a cloth to wipe away any dirt and mud from the relief valve. Then pull out on the valve stem.

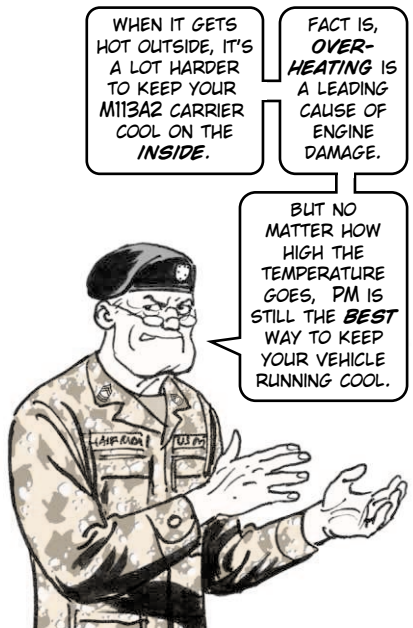
If it slides out smoothly and pops back in when you release it, the valve's OK. If it doesn't, replace it with relief valve, NSN 4820-01-070-7670.



M113A2 FOV...

STOP HEAT EXHAUSTION

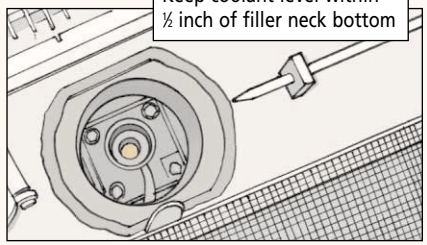


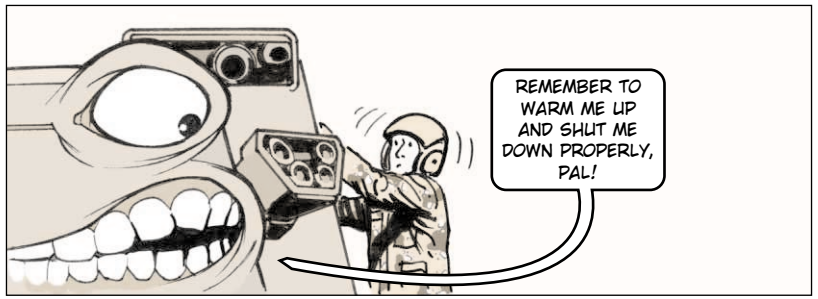


Coolant Levels

If you operate with low coolant levels, the engine overheats and is ruined. So take a look at the coolant level daily before operation. Be sure coolant is within ½ inch of the bottom of the filler neck. Keep the level up at **all** times.

If the coolant level is low, have your mechanic give the system a complete inspection for leaks.

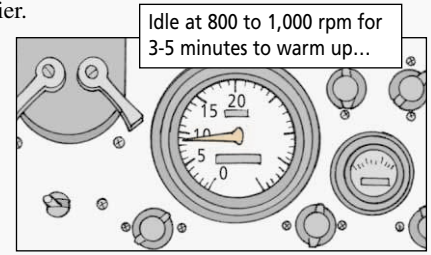




Engine Warmup

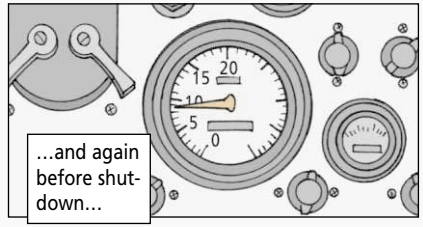
Your engine will last longer if you always warm it up before you move out. Oil drains out of bearings when the engine is at rest. You need to give the oil time to circulate before you move your carrier.

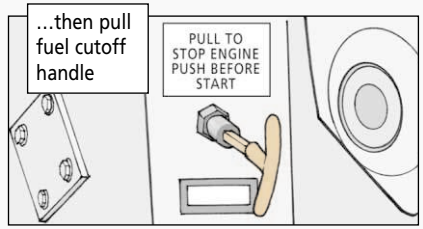
After you start the engine, check the ENGINE OIL HI TEMP LO PRESS warning light. Make sure it goes out within 10 seconds. Then, set the hand throttle between 800 and 1,000 rpm and let the engine run for 3-5 minutes. That lets the coolant and engine oil warm up.



Engine Shutdown

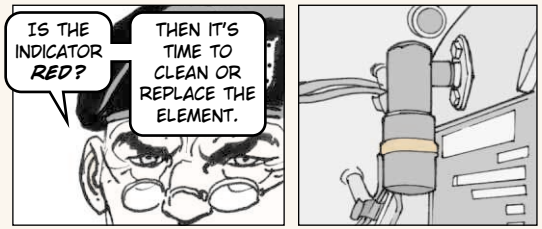
Before you shut off the engine, run it in neutral at 800 to 1,000 rpm until you get a normal idle temperature of 160-180°F on the TEMP gauge. Then, set the engine back to idle (650-700 rpm) for a few seconds. Finally, pull the fuel cut-off handle to shut down the engine.





Air Cleaner

Your engine will lose power and overheat if the air cleaner element is choked with dirt. If the air cleaner restriction indicator shows red in the window, clean or replace the element.



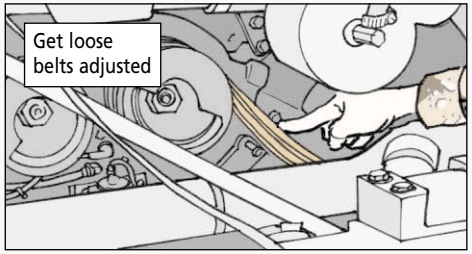
Belts

The fan and generator belts can contribute to engine overheating, too.

When the belts get too loose, the fan and the coolant pump can't operate fast enough to keep the engine from overheating.

Check the belts by pushing on them halfway between the pulleys. If you can push either belt more than ⅝ inch, get your mechanic to adjust them.

Check the idler adjuster rod, too. If the rod is not between the operating range marks, tell your mechanic.

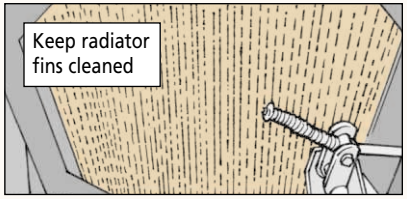


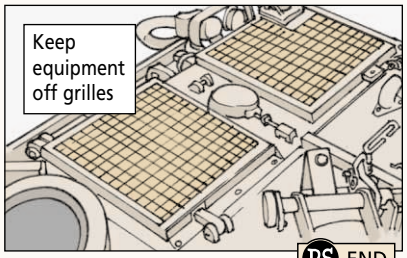
Radiator Fins

Your radiator can't do a good job of conducting heat if its fins are clogged with dirt, oil, leaves, grass or twigs. Anything that restricts airflow through the radiator keeps the coolant hot and overheats the engine.

Keep your equipment—packs, water cans, tents, camouflage screening, poles, etc—off the air intake and the air exhaust grilles. Make sure both are clean and free of dirt, twigs, leaves and other debris.

If you use protective covers over the grilles, make sure they're rolled up and strapped in place before you operate your vehicle.





PS END

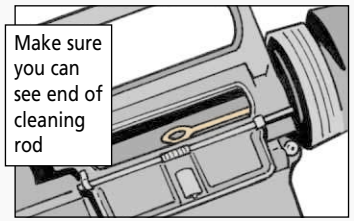
Stuck rounds can ruin your M16 rifle or M4 carbine and injure you. In other words, HANDLE WITH CARE when it comes to stuck rounds.

If you hear an unusual pop while firing your M16 **or** have reduced recoil **or** your rifle won't chamber a new round, it probably has a stuck round.

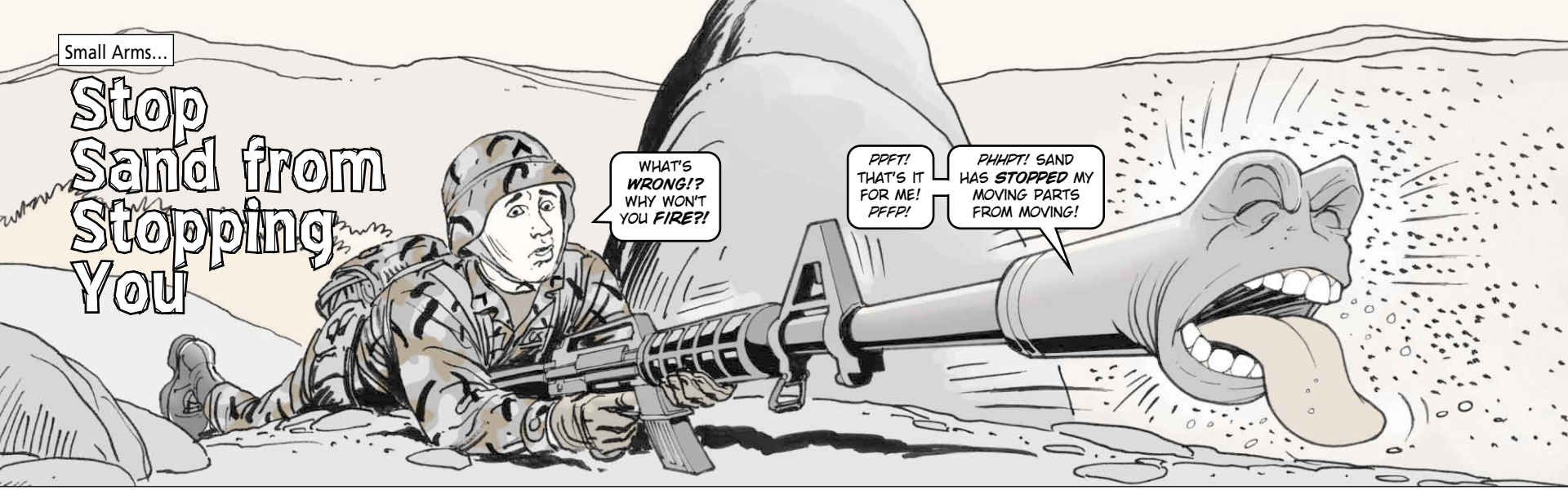
Carefully follow the procedure for clearing stuck rounds that begins on Page 0008 00-21 in TM 9-1005-319-10 (Oct 98). But when you come to the part about running a cleaning rod down the barrel, do this:

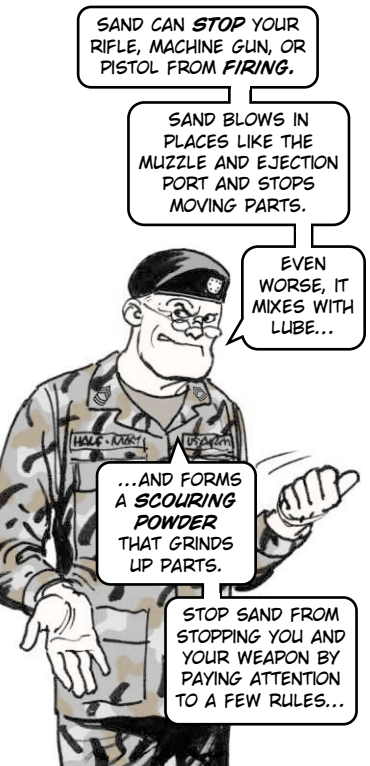
Lock the bolt to the rear. Look for the end of the cleaning rod as you run it down the barrel. If you see the end of the rod, you know you've pushed the rod all the way through to the chamber and there is no stuck round.

If you cannot see the end of the rod, you know there **is** a stuck round.

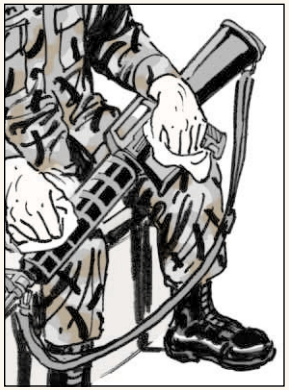


Stop Sand from Stopping You



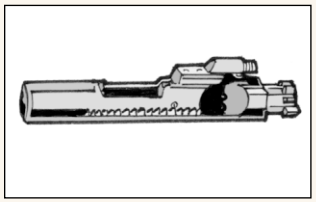


"CLEAN YOUR GUN OFTEN.



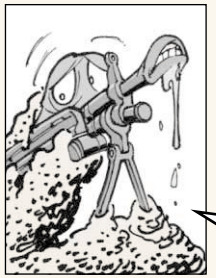
THAT MEANS AT LEAST ***DAILY*** IN THE DESERT. SOMETHING AS QUICK AS WIPING OFF THE OUTSIDE OF YOUR GUN WITH A CLEAN CLOTH EVERY CHANCE YOU GET WILL HELP. CLEANING THAT INVOLVES DISASSEMBLY SHOULD BE DONE ONLY IN ENCLOSED AREAS, LIKE YOUR TENT. OTHERWISE, BLOWING SAND WILL DEFEAT YOUR CLEANING."

"PAY SPECIAL ATTENTION TO MOVING PARTS LIKE THE BOLT CARRIER.



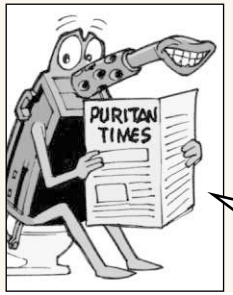
WIPE AND BRUSH THEM CLEAN. BLOW OUT SAND FROM AREAS LIKE THE TRIGGER ASSEMBLY THAT YOU'RE NOT ALLOWED TO TAKE APART."

"EASY ON LUBRICATION.



LUBRICANTS LIKE ***CLP*** ATTRACT SAND. CORROSION IS NOT A BIG PROBLEM IN THE DESERT, SO YOU DON'T NEED AS MUCH LUBE. LUBE ONLY INTERNAL PARTS. WIPE THE OUTSIDE OF THE WEAPON DRY."

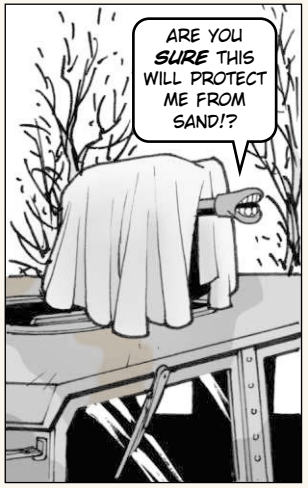
"CLEAN MAGAZINES.



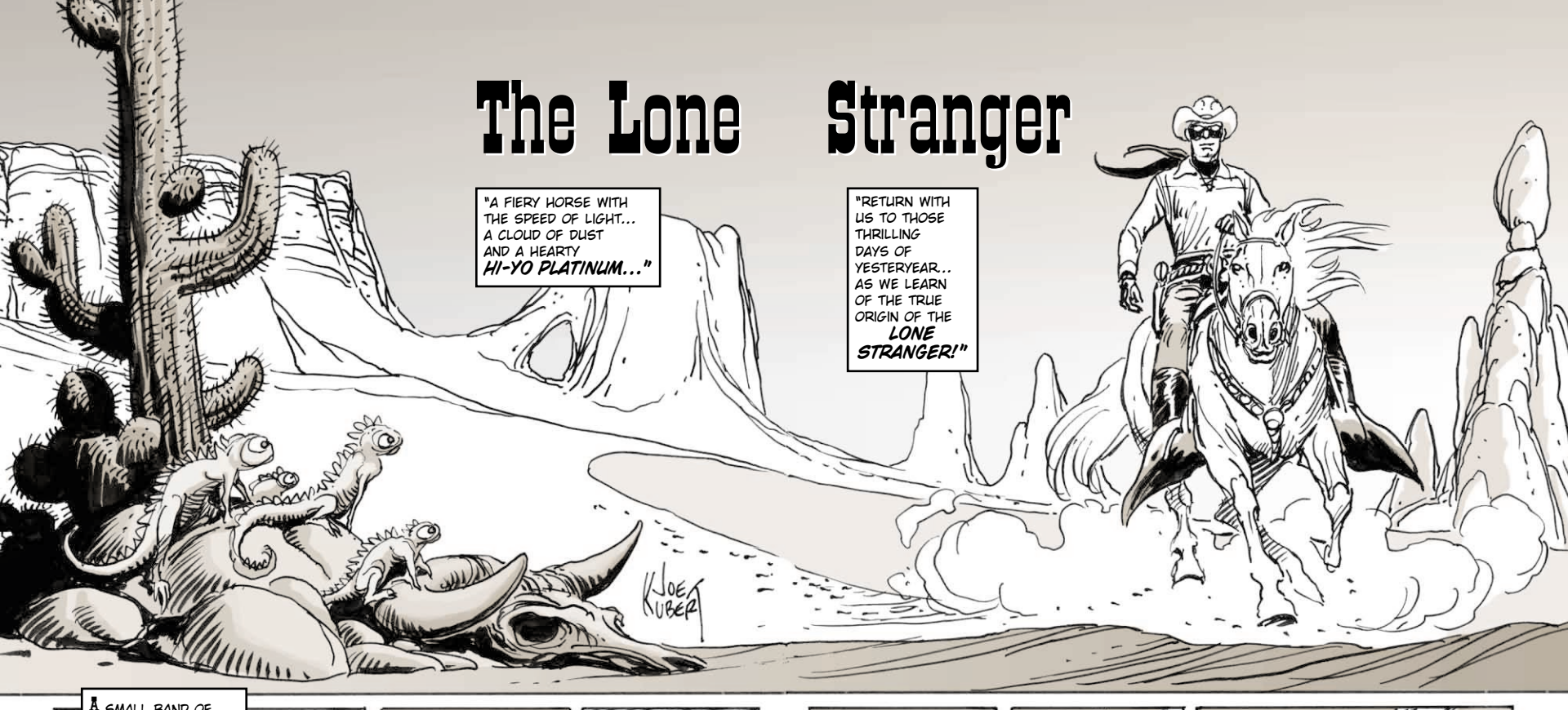
MAGAZINES JAM WITH SAND. UNLOAD AND WIPE OFF AMMO DAILY. RUN A RAG THROUGH THE MAGAZINE. ***DON'T*** PUT ANY LUBE IN MAGAZINES OR ON AMMO."

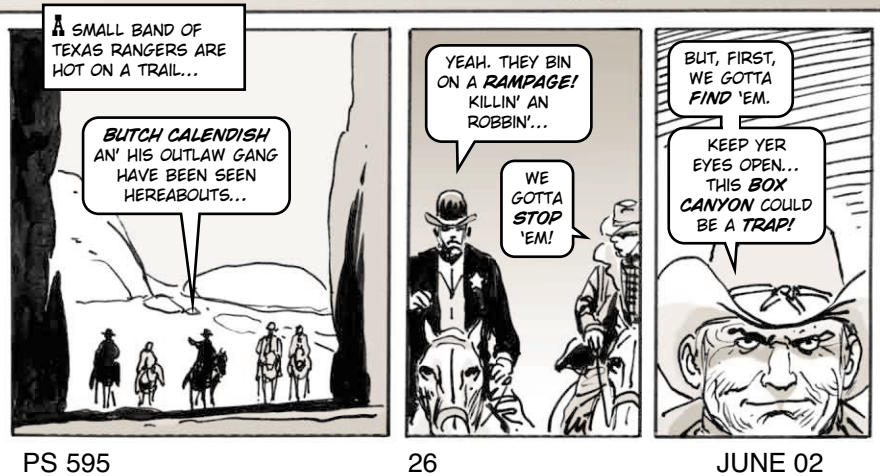
"USE RIFLE COVERS, MUZZLE CAPS, AND SPARE MAGAZINE BAGS.

COVER MOUNTED MACHINE GUNS. KEEP THE M16/M4'S EJECTION PORT COVER CLOSED AND A MAGAZINE INSTALLED."



The Lone Stranger



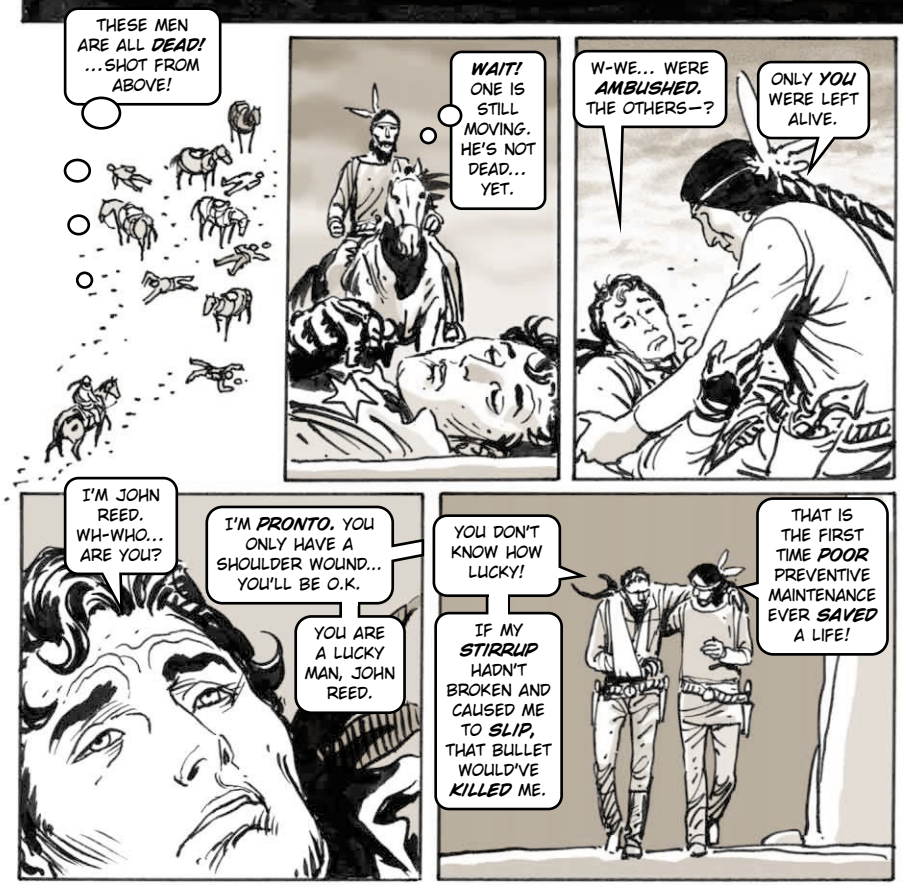


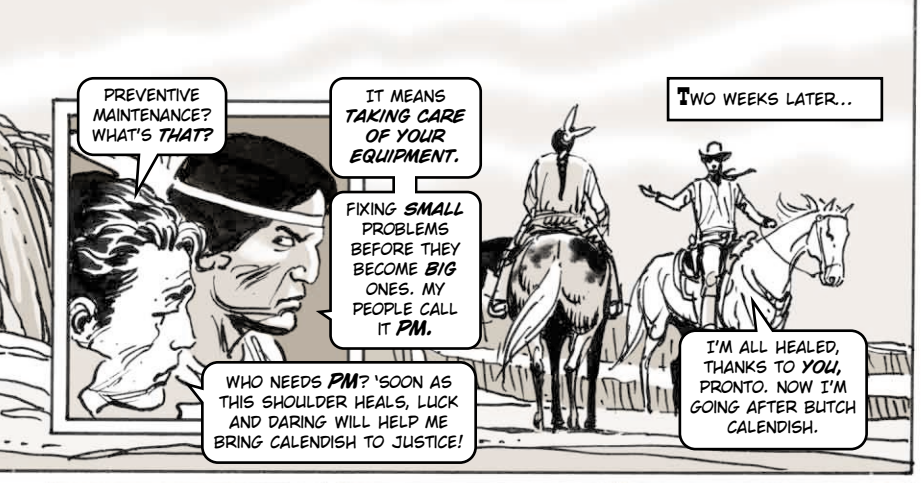

TZIINNNNG
ZIP
BWEEE OW
VIP VIP VIP
BWEEEEEEEE
TZ'NG


STOP SHOOTIN'!! HOLD YER FIRE!
THAT'S ONE BUNCH O' TEXAS RANGERS WHAT AIN'T GONNA BE BOTHERIN' US NO MORE!


"ONLY THEIR HORSES ARE STILL STANDIN'... AN THEY AIN'T TALKIN'!"

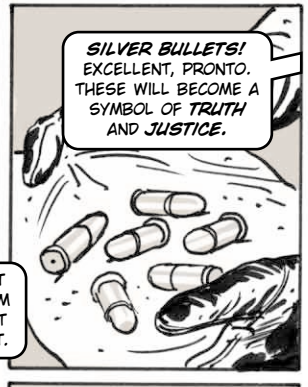

SOMETIME LATER, AS THE SUN BEGINS TO SET...
SO THIS IS WHAT ALL THE SHOOTING WAS ABOUT.


THESE MEN ARE ALL DEAD! ...SHOT FROM ABOVE!
WAIT! ONE IS STILL MOVING. HE'S NOT DEAD... YET.
W-WE... WERE AMBUSHED. THE OTHERS—?
ONLY YOU WERE LEFT ALIVE.
I'M JOHN REED. WH-WHO... ARE YOU?
I'M PRONTO. YOU ONLY HAVE A SHOULDER WOUND... YOU'LL BE O.K.
YOU ARE A LUCKY MAN, JOHN REED.
YOU DON'T KNOW HOW LUCKY!
IF MY STIRRUP HADN'T BROKEN AND CAUSED ME TO SLIP, THAT BULLET WOULD'VE KILLED ME.
THAT IS THE FIRST TIME POOR PREVENTIVE MAINTENANCE EVER SAVED A LIFE!

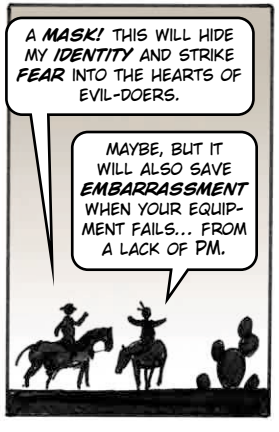

PREVENTIVE MAINTENANCE? WHAT'S *THAT?*
IT MEANS *TAKING CARE OF YOUR EQUIPMENT.*
FIXING *SMALL* PROBLEMS BEFORE THEY BECOME *BIG* ONES. MY PEOPLE CALL IT *PM.*
WHO NEEDS *PM*? 'SOON AS THIS SHOULDER HEALS, LUCK AND DARING WILL HELP ME BRING CALENDISH TO JUSTICE!
TWO WEEKS LATER...
I'M ALL HEALED, THANKS TO *YOU,* PRONTO. NOW I'M GOING AFTER BUTCH CALENDISH.


LET CALENDISH WAIT. PM *MUST* COME FIRST. YOUR EQUIPMENT IS IN *BAD SHAPE.*


SORRY, PRONTO. I HAVE TO STOP BUTCH BEFORE HE KILLS AGAIN.
IF YOU WILL NOT HEED THE WISDOM OF PM, AT LEAST ACCEPT THIS GIFT.


SILVER BULLETS! EXCELLENT, PRONTO. THESE WILL BECOME A SYMBOL OF *TRUTH* AND *JUSTICE.*

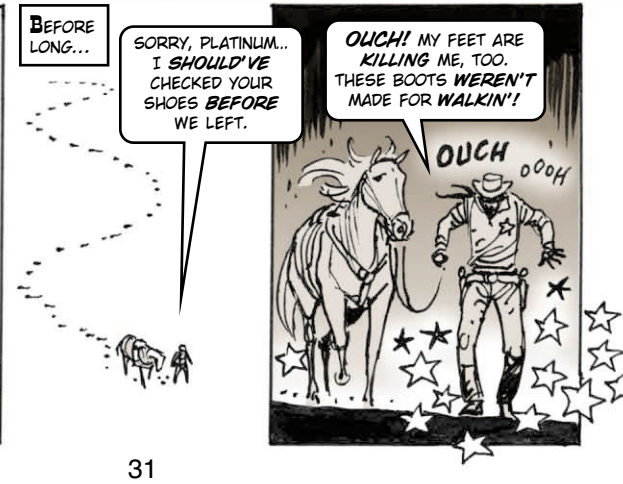

NO. SILVER BULLETS WILL NOT RUST EASILY. THEY'RE MORE LIKELY TO *FIRE* THAN THE CORRODED *BRASS* BULLETS IN YOUR BELT.
ONE MORE THING...


A *MASK!* THIS WILL HIDE MY *IDENTITY* AND STRIKE *FEAR* INTO THE HEARTS OF EVIL-DOERS.
MAYBE, BUT IT WILL ALSO SAVE *EMBARRASSMENT* WHEN YOUR EQUIPMENT FAILS... FROM A LACK OF PM.


BEING ALONE HAS MADE YOU A *STRANGE MAN,* RANGER.
ALONE... STRANGE... RANGER... THAT'S IT, PRONTO! FROM NOW ON I'LL BE KNOWN AS—


...THE LONE STRANGER!
HI-YO, PLATINUM! STEADY, BOY... STEADY.
SNAP
LATER, AFTER A QUICK FIX...
OTHERS WILL KNOW YOU AS THE *LONE STRANGER.* TO ME, YOU ARE *KEMO SABE.*
KEMO SABE? THAT MUST BE A NATIVE TERM OF *RESPECT* AND *ADMIRATION.* THANK YOU, PRONTO.


ACTUALLY, *KEMO SABE* MEANS *'MAN WHO DOES NO PM'.*
GOOD LUCK, KEMO SABE... YOU WILL *NEED* IT!


BEFORE LONG...
SORRY, PLATINUM... I *SHOULD'VE* CHECKED YOUR SHOES *BEFORE* WE LEFT.
OUCH! MY FEET ARE *KILLING* ME, TOO. THESE BOOTS *WEREN'T* MADE FOR *WALKIN'!*
OUCH
OOOH

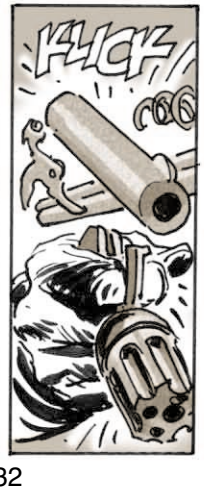

As night falls...
This walking is RUINING us both. Got to rest...
Wait! That lighted cabin... it's BUTCH CALENDISH'S HIDEOUT!


It's THEM alright! And they're holding some poor woman captive!


LET ME GO, YOU MISERABLE BAD GUYS! YOU won't get away with this!

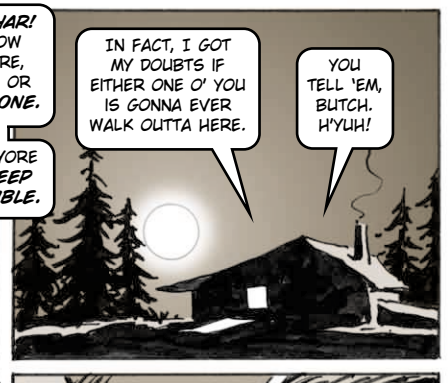

Now, now, missy... we'll set you loose jest as soon's yer pa pays yer RANSOM!
SHORE we will.

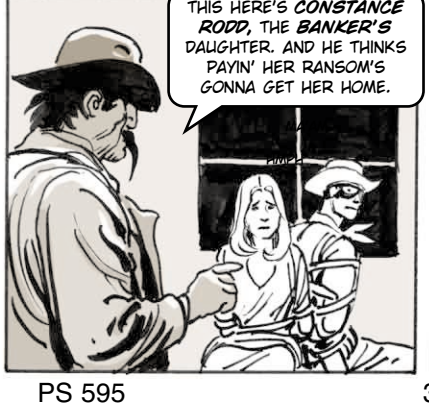

REACH FOR THE STARS, VARMINTS! your killing and stealing days are over!

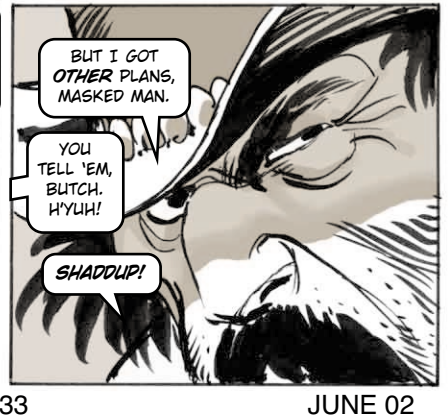

KLICK


Minutes later...
WANTED
You'd better let us go, Butch! The law will deal harshly with you if—
HAR! HAR! HAR!


HAR! HAR! HAR! I don't know WHO you are, stranger... or why yore ALONE.
But yore in DEEP TROUBLE.

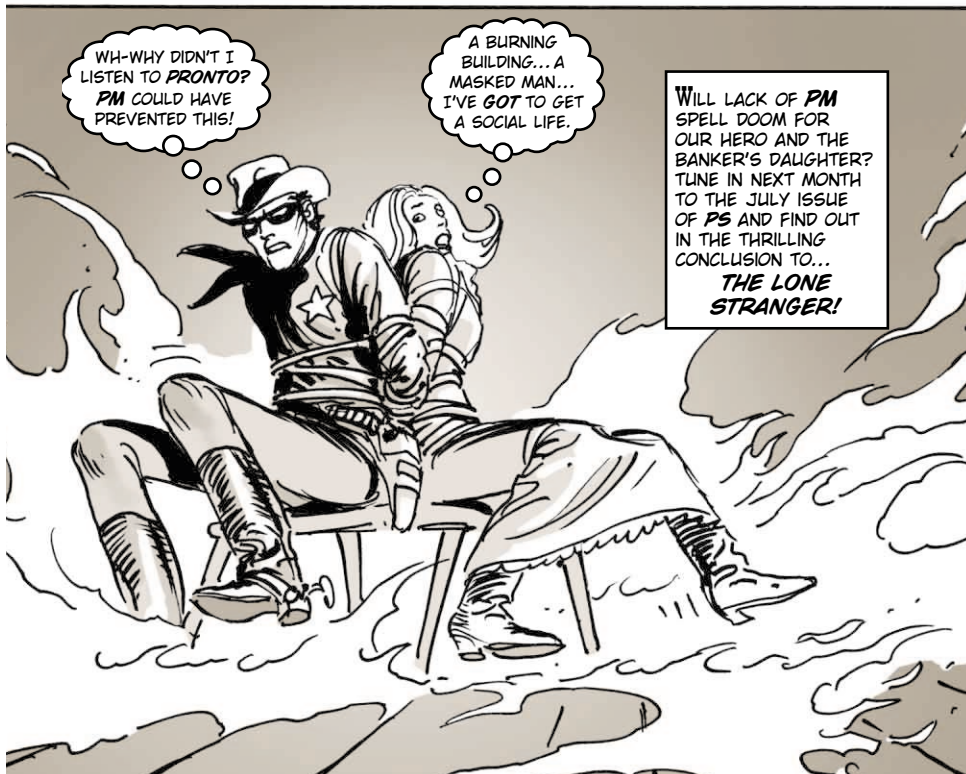

In fact, I got my doubts if either one o' you is gonna ever walk outta here.
You tell 'em, Butch. H'yuh!


This here's CONSTANCE RODD, the BANKER'S daughter. And he thinks payin' her ransom's gonna get her home.

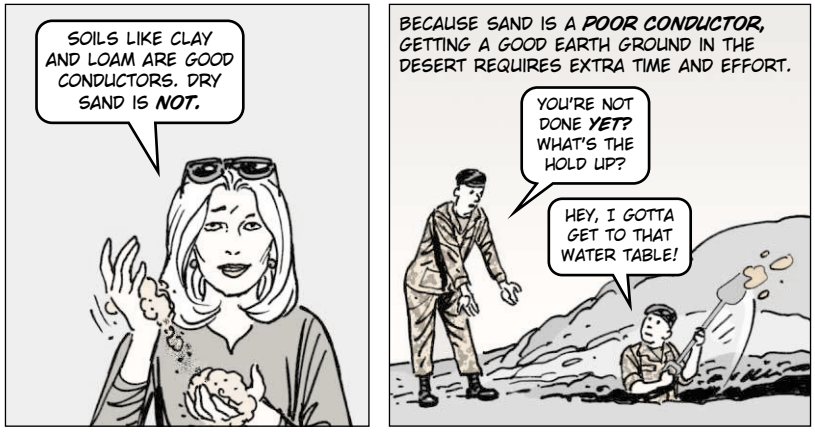

But I got OTHER plans, masked man.
You tell 'em, Butch. H'yuh!
SHADDUP!


WE'RE GOIN' TO PICK UP THE RANSOM MONEY NOW, SO YOU TWO JUST MAKE Y'RSELVES T'HOME.
BE SMART, BUTCH...
...LET THE GIRL GO. THE LAW WILL GO EASIER—
YOU MUST BE PLUMB LOCO, STRANGER! LET 'ER GO? NO WAY!
LET'S GO, BOYS.
WHAT ABOUT THEM TWO, BUTCH?
NO PROBLEM -:PUFF, PUFF:- THEY CAN KEEP EACH OTHER COMPANY... FER A WHILE.
IT GETS A MIGHT CHILLY AT NIGHT. SO... I'LL WARM 'EM UP A BIT.

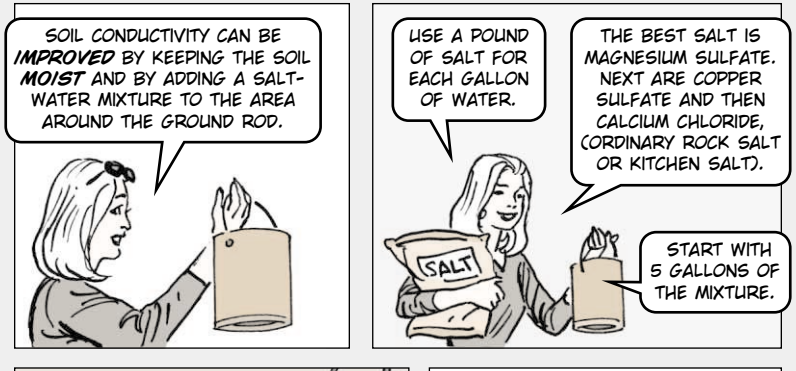

THIS'LL KEEP THE CHILL OUT.
TINKLE TINKLE
FROOSH
SADDLE UP, BOYS! WE'RE GONNA NEED A NEW HIDEOUT.

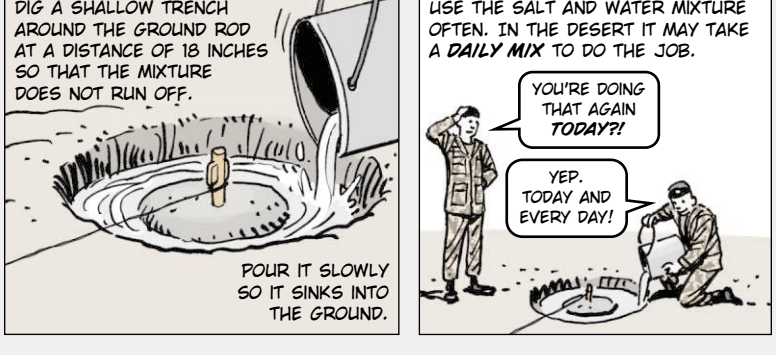

WH-WHY DIDN'T I LISTEN TO PRONTO? PM COULD HAVE PREVENTED THIS!
A BURNING BUILDING... A MASKED MAN... I'VE GOT TO GET A SOCIAL LIFE.
WILL LACK OF PM SPELL DOOM FOR OUR HERO AND THE BANKER'S DAUGHTER? TUNE IN NEXT MONTH TO THE JULY ISSUE OF PS AND FIND OUT IN THE THRILLING CONCLUSION TO... THE LONE STRANGER!

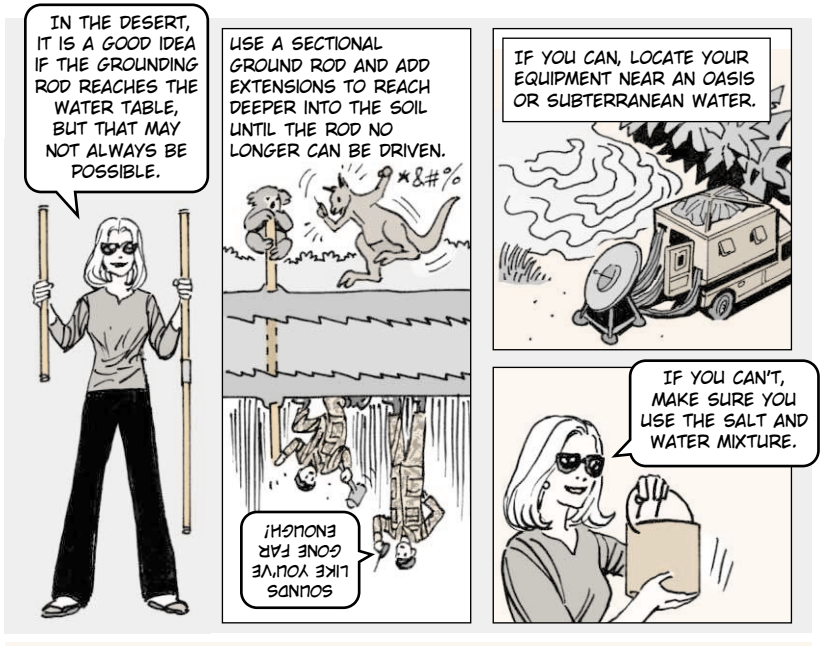
GROUNDING IN THE DESERT



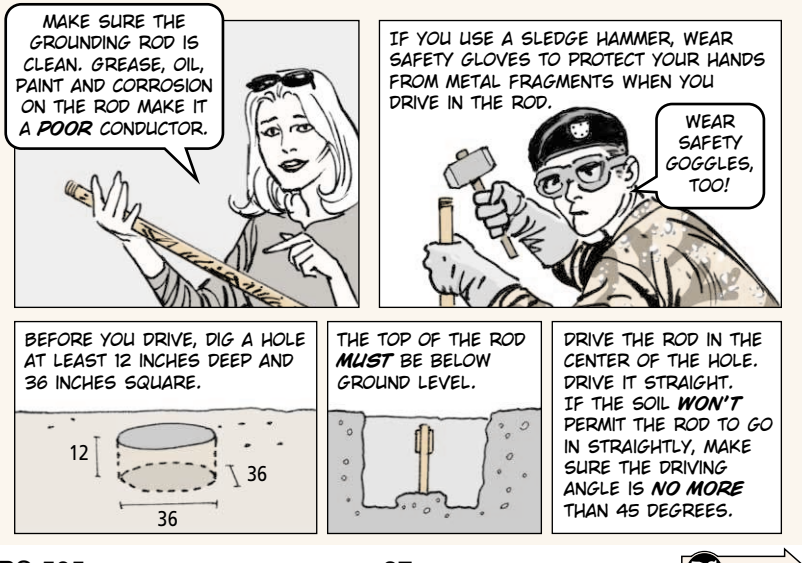
Prepare the Soil







Before You Drive



LEAVE ABOUT 3 INCHES OF THE ROD SECTION ABOVE THE RIM OF THE HOLE. WHEN ADDING ROD EXTENSIONS MAKE SURE EACH SECTION IS TIGHTLY CONNECTED TO THE PREVIOUS ONE.

IF THEY'RE ***NOT*** TIGHT, WHEN YOU DRIVE IN THE ROD, YOU'LL ***DAMAGE*** THE COUPLING SLEEVE THREADS.

DON'T HIT THE THREADED END OF THE ROD WITH THE HAMMER. THIS WILL ***DAMAGE*** THE THREADS, TOO.

DON'T DAMAGE THE THREADS, MAN!

USE A DRIVING BOLT ON THE TOP SECTION AND MAKE SURE IT'S TIGHT. A LOOSE BOLT WILL BREAK OFF.

IF POSSIBLE, USE A ***DRIVING HAMMER*** WHEN INSTALLING A SECTIONED GROUND ROD.

SLIDE HAMMER, NSN 5120-01-013-1676, MAKES IT EASIER TO DRIVE RODS, AND EASIER TO GET THEM OUT, TOO. FOR DRIVING RODS INTO ***VERY HARD*** DESERT GROUND, USE A 12-LB SLEDGE HAMMER, NSN 5120-00-293-0887.

IF YOU CANNOT REACH THE WATER TABLE WITH A SINGLE GROUND ROD OR ONE WITH EXTENSIONS, USE MULTIPLE GROUNDS AND THE SALT-WATER MIXTURE.

DRIVE IN THE ADDITIONAL RODS TWO TO FOUR ROD LENGTHS APART.

IF ***THREE*** RODS ARE USED, DRIVE THEM IN A TRIANGULAR PATTERN.

IF ***MORE THAN FOUR*** RODS ARE USED, PUT THEM IN A STRAIGHT LINE OR A STAR PATTERN, WHICH WORKS WELL IN THE DESERT.

WHEN USING MULTIPLE RODS ***ALWAYS*** CONNECT ALL THE RODS TOGETHER, THE FINAL ROD BEING CONNECTED TO THE EQUIPMENT TO BE GROUNDED.

IF YOU CAN'T DRIVE A GROUND ROD MORE THAN 4 FEET, DIG A HOLE, ADD THE SALT-WATER MIXTURE AND THEN BURY THE ROD HORIZONTALLY ALMOST 1¼ FEET DEEP.

GROUND ROD ASSEMBLY, NSN 5975-00-878-3791, COMES WITH...

Rods 5975-00-878-3791

Couplings 5975-00-794-2523

No.6 AWG wire 6145-00-395-8799

Terminal lug 5940-00-271-9504

Drive/head stud 5975-00-924-9927

Clamp 5999-00-186-3912

Grounding Plates

SINCE SAND IS EASY TO MOVE, ***GROUNDING PLATES*** CAN BE A GOOD IDEA IN THE DESERT.

THEY ALSO GIVE YOU A LARGE, METALLIC AREA THAT IS IN CONTACT WITH THE SOIL. THE GROUND PLATES—USE TWO TO FOUR—SHOULD BE SPACED AT LEAST 10 FEET APART.

TO MAKE A GROUND PLATE, START WITH A CLEAN, COPPER OR STEEL PLATE OR SHEET ¼ INCH THICK.

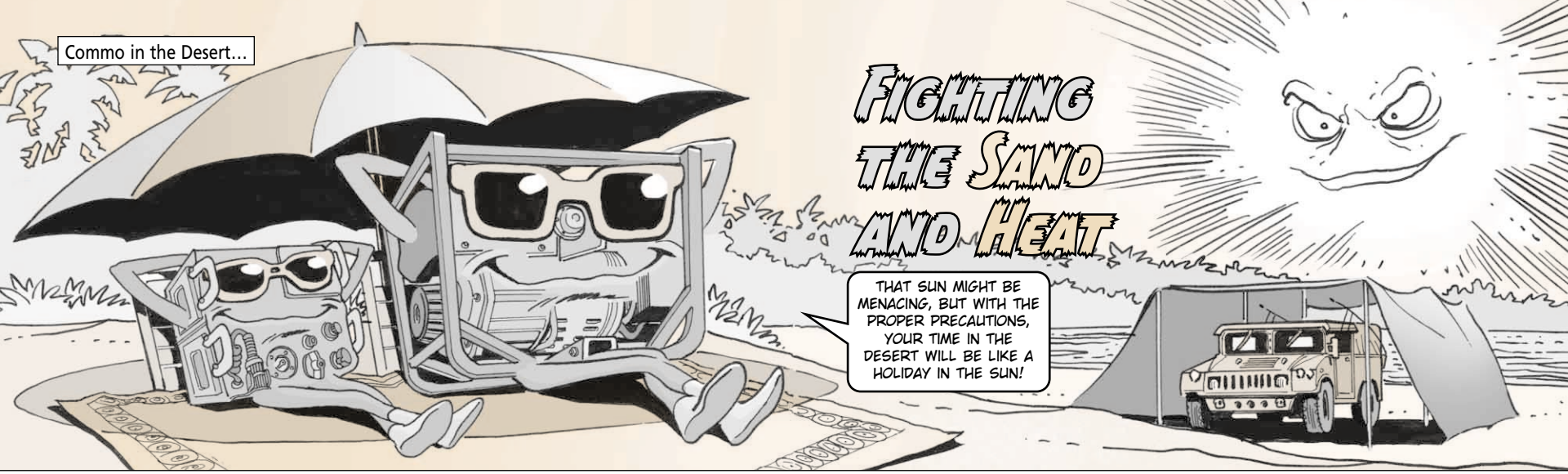
THE PLATE SHOULD HAVE AT LEAST 3 SQUARE FEET OF SURFACE CONTACT WITH THE GROUND. THE LARGER THE PLATE, THE LOWER THE RESISTANCE AND THE BETTER THE GROUND.

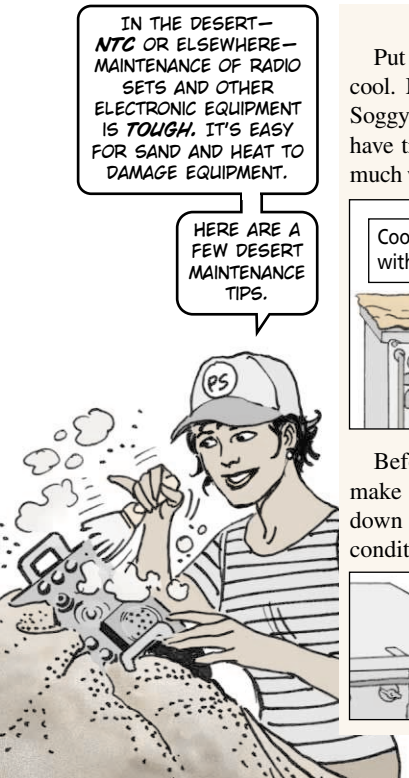
ALONG WITH THE PLATE YOU'LL NEED A ***METAL BOLT, NUT*** AND ***LOCK WASHER*** TO ATTACH THE GROUND WIRE.

DRILL A HOLE IN THE CENTER OF THE PLATE JUST LARGE ENOUGH FOR THE BOLT. DIG A HOLE SO THAT THE PLATE CAN BE BURIED VERTICALLY, THE TOP EDGE ABOUT 5 FEET BELOW THE SURFACE.

IT'S EASIER TO BURY THE PLATE VERTICALLY AND STILL ENSURE GOOD SOIL CONTACT ON BOTH SIDES OF THE PLATE.

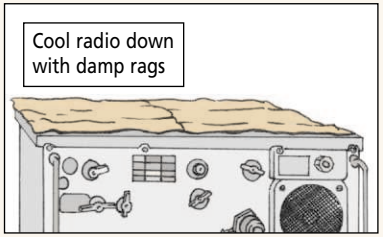
POUR YOUR MIXTURE OF WATER AND SALT INTO THE SOIL AROUND THE PLATE TO FURTHER INCREASE CONDUCTIVITY.



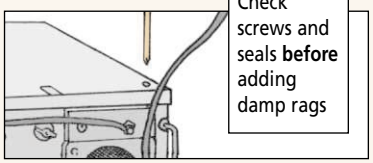


Good Moisture

Put damp rags on the tops of radios to keep them cool. Make sure the rags are damp, not soaking wet. Soggy rags lead to water inside the radio. Some of you have tried letting ice melt on top of a set. Don't. That much water assures some will get inside and do damage.

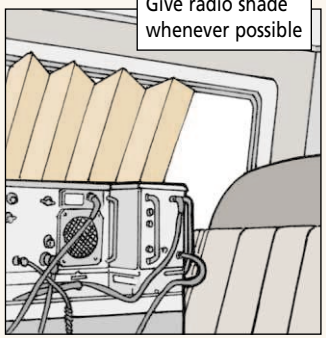


Before you put on the damp rag, make sure all screws are screwed down tight and all seals are in good condition.



Of course, whenever possible, shade your radio. Use cardboard or your vehicle's canvas top. Anything will help that keeps the glaring sun off the radio, but doesn't hold in the heat.

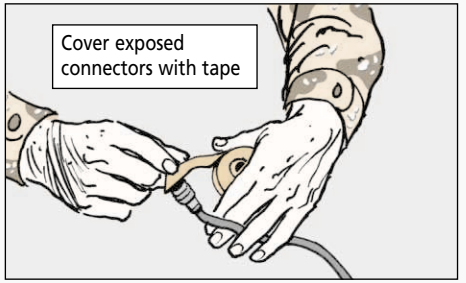
A fan will run itself to death trying to cool your radio in the desert. Give the radio the moisture-and-shade treatment to help the fan.



Bad Moisture

Overnight, condensation forms on metal surfaces that are cooler than the air temperature.

This condensation can affect electrical plugs, jacks and connectors. If condensation is affecting your commo connectors, tape over all connectors that may be exposed to moisture overnight. This prevents that moisture from contaminating the contacts.

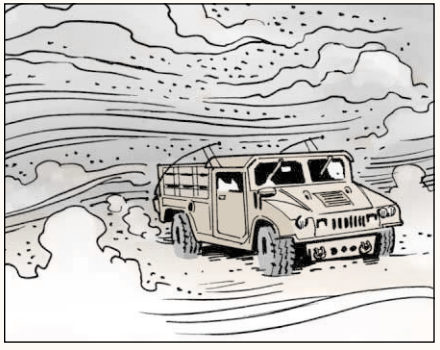


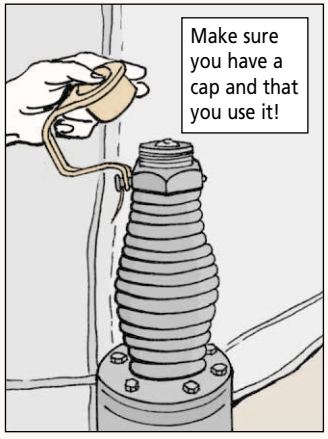
Plugs should be dried before inserting them into equipment jacks. Excessive moisture or dew should be removed from antenna connectors to prevent arcing.

No Moisture

Static electricity is common in the desert. It's caused by wind-blown sand and extremely low humidity. Poor grounding conditions aggravate the problem. Make sure your equipment is properly grounded.

Be sure to use tip caps on all antennas to cut down on wind-caused static discharges.

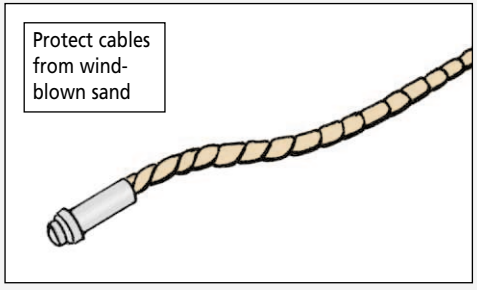


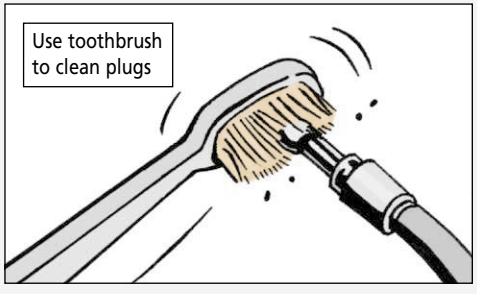


Electrical Insulation

Wind-blown sand and grit will damage electrical wire insulation over a period of time. All exposed cables should be protected with tape or large shrink-wrap tubing before insulation becomes worn. Of course, keep dust caps on all cable connectors when not in use.

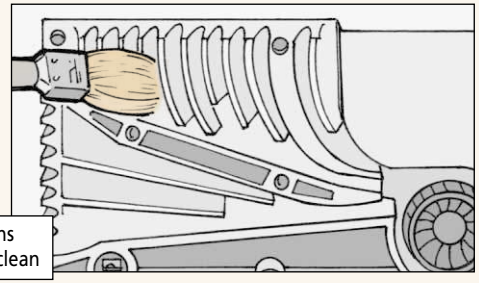
Sand will also find its way into parts of items such as spaghetti cord plugs, either preventing electrical contact or making it impossible to join the plugs together. Carry an old toothbrush and use it to clean plugs before they are joined.





A Little More Cleaning

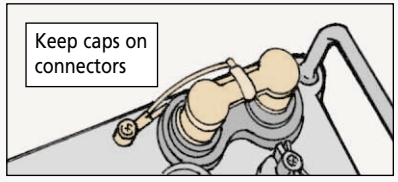
Keep all cooling fans clean and their vents clear of all clogging sand, dust and dirt. Use a brush or compressed air—whatever your equipment TM says—to clean the fan and the areas around it.



Some Things to Check

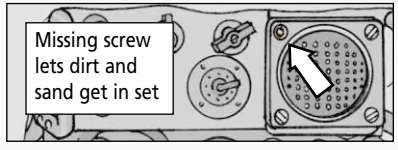
If you have any broken or missing knobs, switches or connectors, get them replaced.

Dirt and sand work into the connectors and keep the contacts from touching. If they're dirty or making bad contact, clean them with low-pressure air or a soft brush.



Keep connector caps on audio connectors to keep out dirt and sand when the radio's not in use.

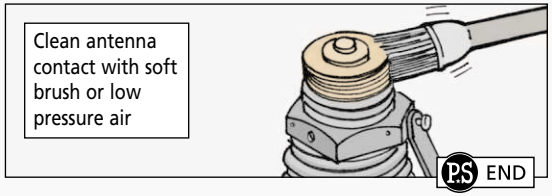
If you have loose or missing panel or cover screws, tighten or replace them. A missing screw lets dirt and sand get inside your set.



Give your commo equipment room to breathe. If you pile gear on or around it, heat quickly builds up. Keep field gear, maps, manuals and other items away from the RT blower fan. Blocking the airflow will cause the heat to build up inside your set.

Make sure loose latches and mounts are tightened properly or repaired. They can cause commo equipment to bounce out on a rough desert ride.

Check the whip antenna's mast base to be sure the contact is clean. Use low pressure air or a soft brush to clean it.

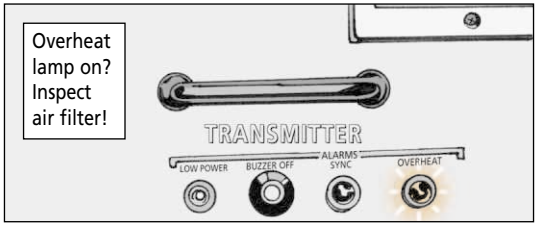


BE A DUST BUSTER

Sometimes something real small can cause really big headaches. Dust is tiny, but it packs a big, damaging punch like when it clogs the transmitter's air filter on the AN/GRC-103 radio.

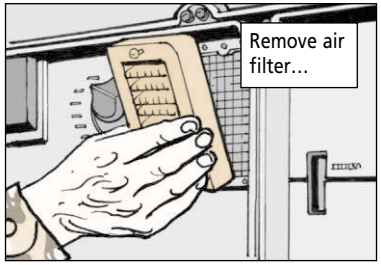
Dust clogging the air filter makes the ventilation fan work harder and harder to suck in cooling air. The transmitter overheats and the OVERHEAT lamp comes on and stays on. The transmission signal degrades or the signal goes out altogether.

That's just the beginning of the problems. Components begin to burn up—like driver tubes, the RF amplifier, frequency generating circuits and the transmitting section of the duplexer.



Look at the filter before and during operations to make sure it's clean and stays that way. If you're in a dusty environment, make your checks more frequent.

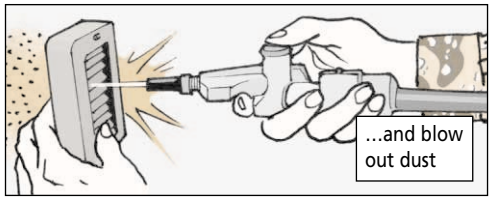
If the filter is dusty, remove it from the transmitter by loosening the captive screws. Use an air hose and air gun to blow dust out of the filter. Direct the airflow from the inside of the filter to the outside.

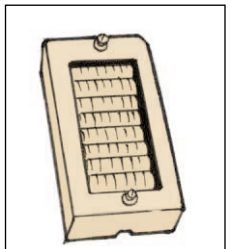


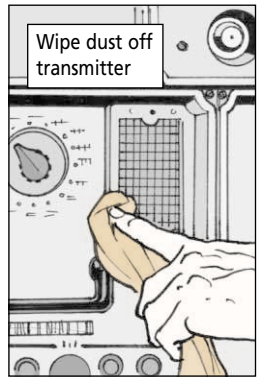
Don't use the air hose unless you have an air gun, NSN 4940-00-333-5541, to attach to it. The air gun limits the outlet pressure to 30 psi, a safe level that won't damage the filter or injure you.

If you don't have an air hose and air gun, tap the filter and shake the dust out. If your mission permits, wash the filter in warm water and a mild detergent, NSN 7930-00-929-1221. Let it air dry for a few hours before reinstalling it.

Dust also collects on the recessed area and the metal screen where the filter fits on the transmitter. Use a cloth to wipe them clean.







All Aircraft...

KEEP BIRDS UNDER COVER

HURRY WITH THE COVERS, BUDDY! THE SANDMAN WANTS TO PUT ME TO SLEEP... PERMANENTLY!

ARRGH! MY ENGINES ARE CHOKING ON SAND!

I NEED A COVER FOR MY MAST MOUNTED SIGHT BEFORE I GO BLIND!

HOLD YOUR ROTORS, ALL A' YA! I'M GETTING YOUR COVERS!

MY AN/ALQ-144A WINDOW PANES ARE GETTIN' HAMMERED OUT HERE! GET MY COVER!

AIRCRAFT MAINTENANCE IN THE DESERT STARTS WITH KEEPING YOUR BIRD **CLEAN** AND **UNDER COVER.**

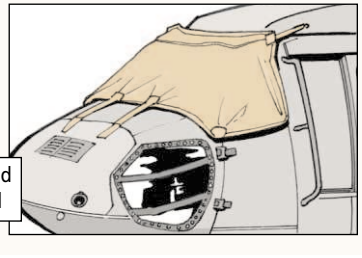
THAT WAY, BLOWING SAND **CAN'T DESTROY** OPTICS, AIRCRAFT WINDSHIELDS, AVIONICS, AND ENGINES.

CHECK OUT THE COVER INFORMATION IN THESE TMs TO KEEP SAND AT BAY...

TM 1-1500-204-23-1
TM 1-1520-237-23P-5
TM 1-1520-238-23-1 and -8
TM 55-1520-240-23-1
TM 55-1520-240-10
TM 1-1520-252-23-1
TM 1-1520-252-10

Windshields

Before you cover the windshields, clean them **and** the cover. Even fine dust can scratch the windshield when the wind blows. When you attach the cover, make sure it's snug. Otherwise, wind will blow sand under the edges.



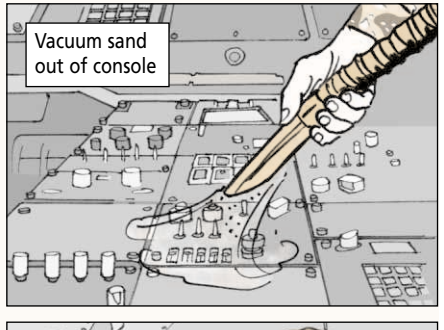
Cover windshield in blowing sand

Optics and Commo

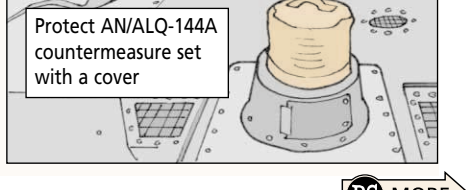
SAND'S WORST DESTRUCTION IS UNLEASHED ON YOUR OPTICS AND COMMUNICATIONS EQUIPMENT.

When not in use, keep optic lenses covered with cling film, NSN 5330-00-766-0062. Use a vacuum, NSN 7910-00-807-3704, to suck up dirt and sand from instrument panels, switches, flight controls and cable connectors.

When not in use, keep all avionics equipment covered. Just a little sand will grind up delicate commo.

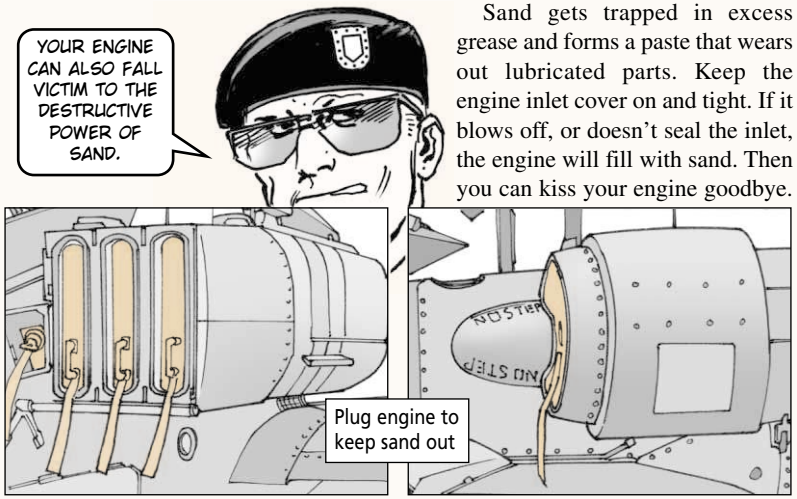


Vacuum sand out of console



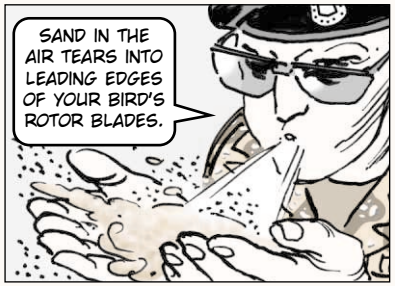
Protect AN/ALQ-144A countermeasure set with a cover

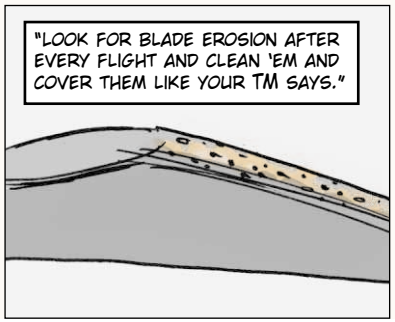
Engines



Sand gets trapped in excess grease and forms a paste that wears out lubricated parts. Keep the engine inlet cover on and tight. If it blows off, or doesn't seal the inlet, the engine will fill with sand. Then you can kiss your engine goodbye.

Rotor Blades





Other Areas

Tape all openings or seams around windows, chin bubbles, and access panels. Be thorough, but be sure you don't stop airflow that is needed to cool parts.

Of course, always check out TM 1-1500-204-23-1 and FM 1-202, *Environmental Flight,* for other hot weather and desert environment tips.

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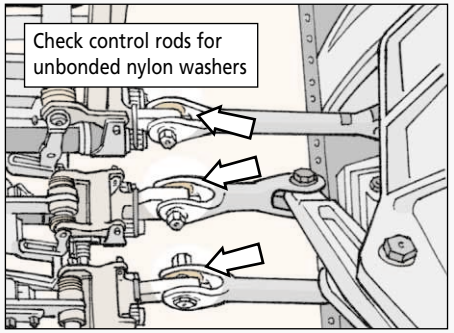
PS END

WORN OUT WASHERS

Black Hawk repairmen, a quick glance at the control rods is simply not enough to spot bad nylon washers during your scheduled PMS-1 checklist inspections.

The control rods connect primary servos to the swashplate, which controls aircraft flight. A bad washer could spell curtains for you and your bird if you don't thoroughly inspect the rods. That could lead to flight control failure.

So during your 30-hr/42-day flight control inspection, eyeball the control rods closely and check for everything that sequence number 6.4 of TM 1-1520-237-PMS-1 tells you to. Make especially sure the nylon washers haven't begun to peel off the control rods from wear and tear.



If you have bad washers, replace 'em like it says in section 11-4 of TM 1-1520-237-23-6.

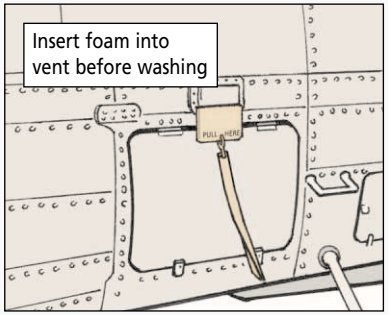
PLUG UP THAT LEAK

Dear Editor,

Even though MWO 1-1520-238-50-50 moved the AN/AVR-2A laser detection comparator and the AN/APR-39A digital processor into the Apache's left avionics bay (L295) to keep them dry, water leaks still happen.

When we wash the bird, water enters the bay through the vent above the L295 bay door. That water can short out the components and cause corrosion.

But we've come up with a quick fix that plugs the vent and keeps pesky water and other contaminants out of the bay. Just order some cushioning material, NSN 8135-01-005-8974. This foam is used to shadow most tool boxes. Cut a 1-in thick piece of plastic foam 6 X 6.25 inches. Attach a REMOVE BEFORE FLIGHT flag with elastic cord, NSN 8305-00-276-7575. Then shove the foam into the opening and you're ready to wash.

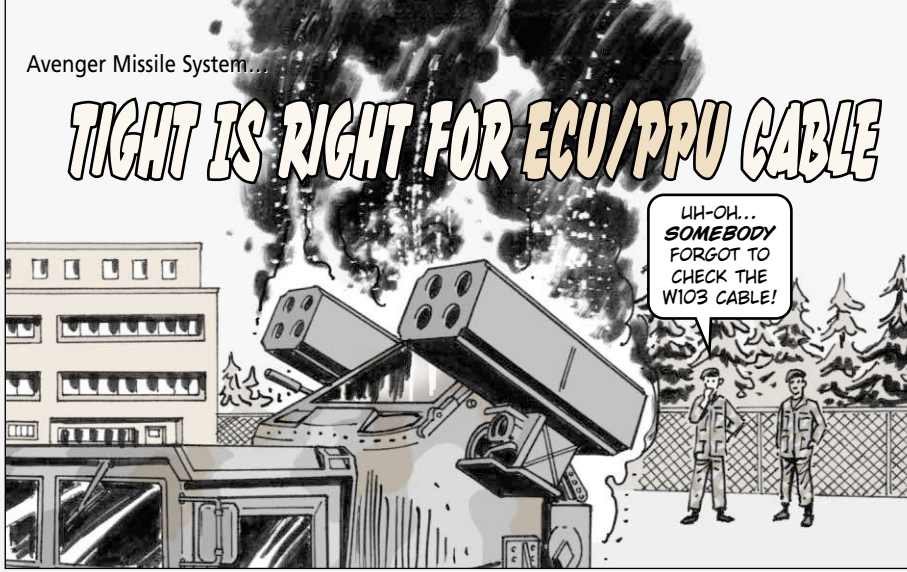


SGT Glenn Layne
D Co, 1-183 Avn Bn
Idaho ARNG

From the desk of the *Editor*

Great job! That foam will keep the water at bay.

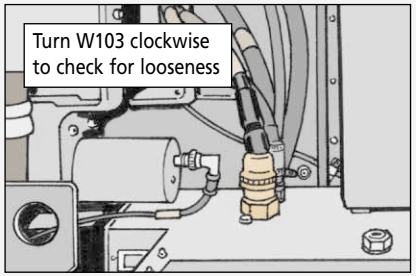
TIGHT IS RIGHT FOR ECU/PPU CABLE



One Avenger cable you don't ever want to work loose is the W103 cable for the environmental control unit/primary power unit (ECU/PPU). The W103 has a shielded ground. If the cable loosens, it arcs and can start a fire. You could be cooked in the turret.

During your before-operation PMCS, check **all** the cables between the ECU and PPU for looseness, but pay special attention to the W103.

Firmly grasp the W103's connector and try to turn it clockwise. If you can move it at all, your repairman needs to tighten it to 95-105 in-lbs. Even if you can't budge the W103, but suspect it might have problems, get your repairman to check it. Better safe than sorry.

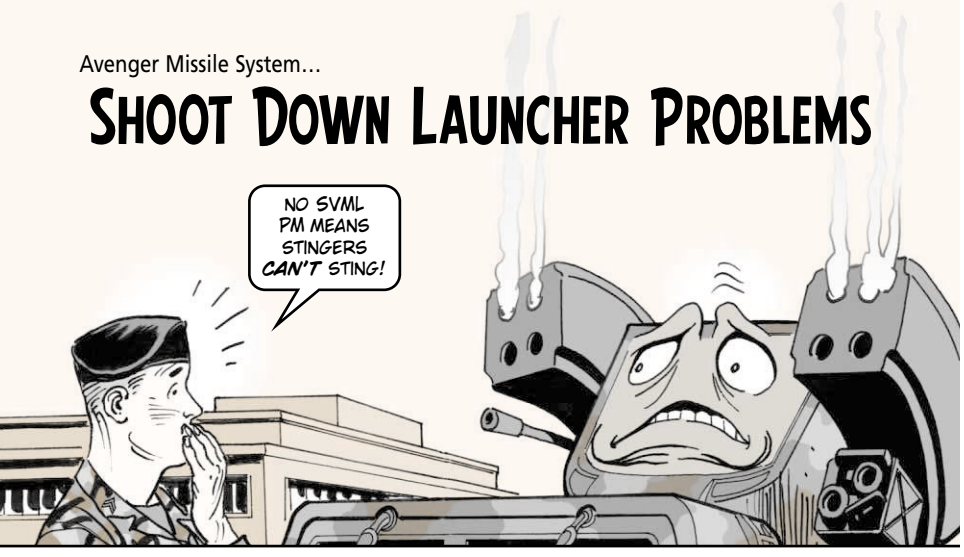


Repairmen, remember that you're supposed to check the W103's torque every 250 hours of operation or semi-annually, whichever comes first.
This is spelled out on Page 2-13 of Table 2-1 in TM 9-1440-433-24-1.

The W103 torquing procedure is in Para 19-31 in TM 9-1440-433-24-2. To properly torque the W103 connector on the bottom of ECU, you must remove the antenna bracket and W101 and W102 cables.

Avenger Missile System...

Shoot Down Launcher Problems



An Avenger with a standard vehicle-mounted launcher (SVML) in bad shape isn't going to sting many enemy aircraft.

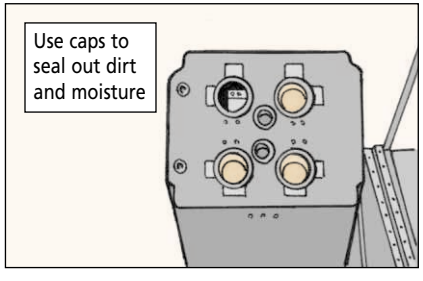
But you can shoot down many launcher problems with PM.

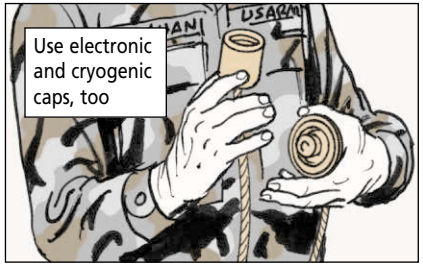
Be Clean

Just a little dirt and moisture can be fatal to your SVML's cryogenics or electronics. They cause firing problems or even no firing. So think clean and dry.

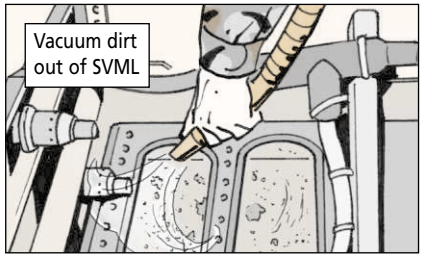
The best way to seal out dirt and moisture is to use the SVML protective caps as much as possible, especially during travel. The caps are cheap, so order plenty of extras. The rear caps come with NSN 5340-00-855-7993, the front caps with NSN 5340-00-157-5624, and the caps for the pressure gauge holes with NSN 5340-01-348-6514.

It's also important to use the caps for the SVML cryogenic and electronic ports as much as possible to further seal out dirt and moisture. Order replacement cryogenic caps with NSN 5340-01-466-1897 and the electronic caps with NSN 5340-01-466-1898.





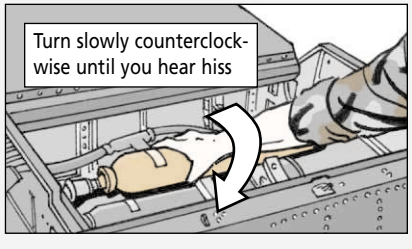
Letting dirt build up inside the SVML isn't going to help keep dirt out of the cryogenics or electronics. Whenever you notice much dirt, use a shop vac to suck it up. Of course, keep the SVMLs closed as much as possible to keep out dirt.



Coolant Reservoir Bottles

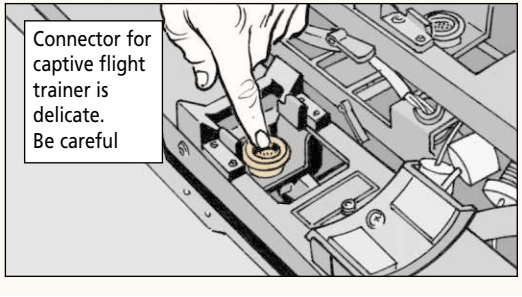
Remember that the coolant reservoir bottles are under 6,000 pounds of pressure. When you're installing a bottle in an SVML, make sure nobody is standing behind the launcher. A bottle can take off like a rocket if its coupling malfunctions.

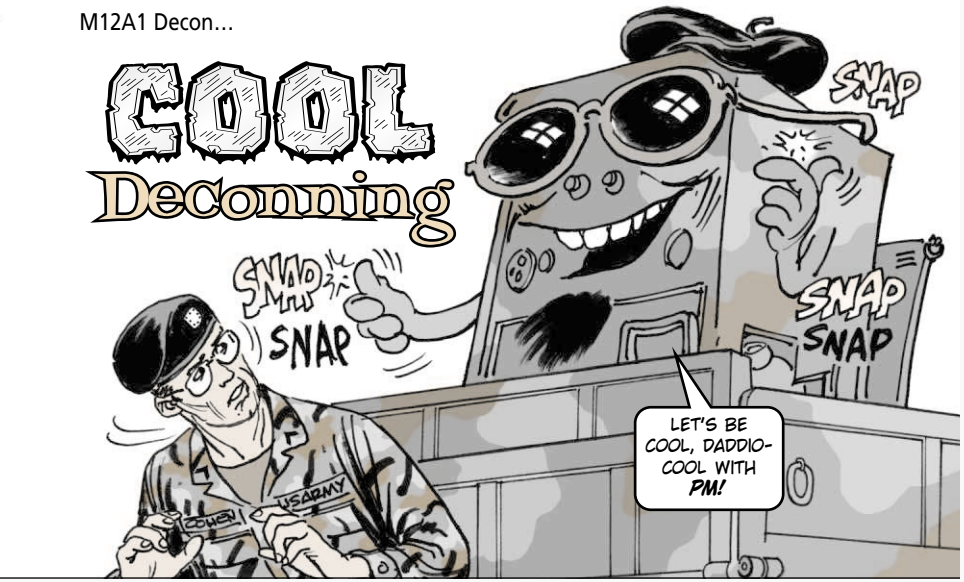
All that pressure can cause leaks if you leave the bottles hooked up when the Avenger sits for weeks in the motor pool. To release the pressure on a bottle, just open its quick-release clamp and turn the bottle slowly counterclockwise until you hear a hiss. Then close and latch the quick-release clamp. Don't let anybody stand behind the launcher while you do this.



Captive Flight Trainer

Be careful plugging in the captive flight trainer. The SVML connector has delicate pins. If you muscle the trainer connector on and bend the pins, it's an expensive and lengthy procedure to replace the SVML connector.





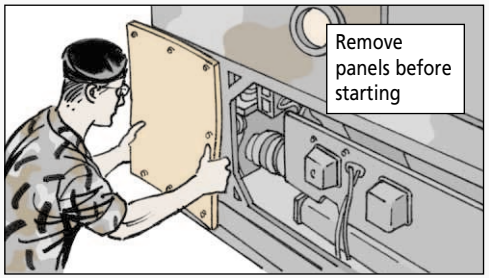
The M12A1 decon generates lots of heat while it operates, so you have to keep it cool while it's running and let it cool off before you shut it down. Otherwise, it can suffer major damage, like warped pistons. So think cool.

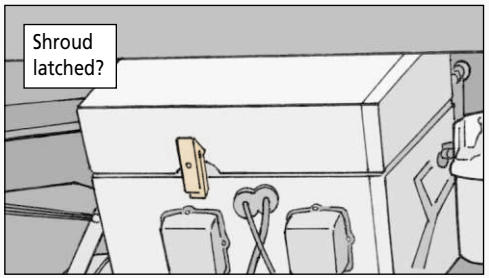
Thinking cool begins with "panels off, shroud on." If the side panels are left on while the M12A1 is running, heat can't escape. So before start-up, remove all five panels.

But keep the engine shroud latched in place. It directs cool air around the engine for efficient cooling.

But the shroud won't do much good if it doesn't fit—and new shrouds don't fit. The shroud wasn't designed for the M12A1. Support can make it fit by using the info on Page 2-77 in TM 3-4230-209-30&P.

Remember to adjust the engine air control handle to the outside temperature.



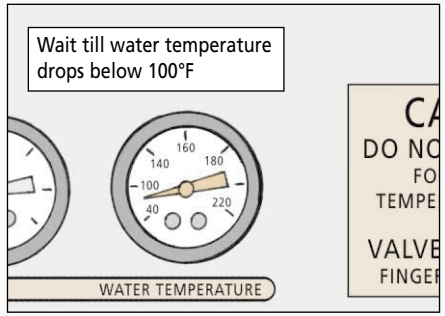


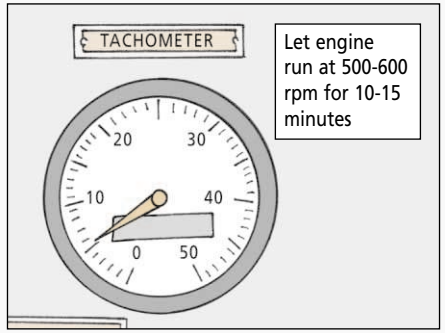
Shutdown

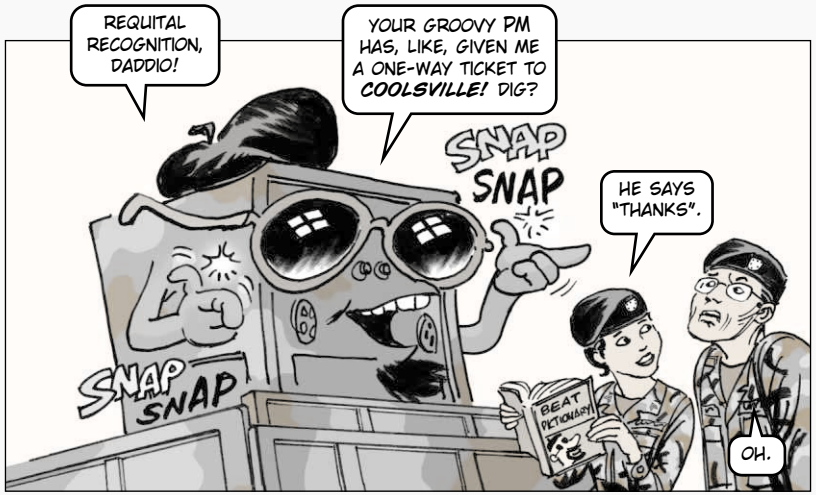
To shut down the heater unit, put the heater switch in the PURGE ON position. Let the heater run for 2 minutes after combustion stops, then turn the heater receptacle switch on the pump to OFF.

Check the heater's water temperature gauge. If the temperature is above 100°F, continue to cycle water through the boiler until the temperature drops. Once it's below 100°, it's safe to shut off the heater.

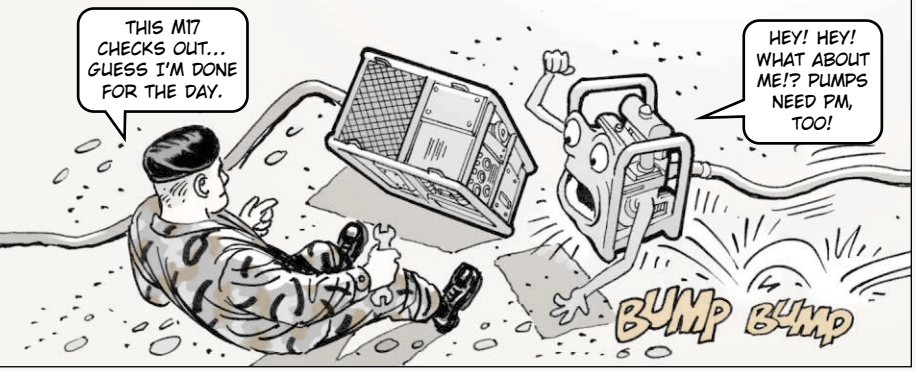
Give the pump engine a chance to cool off, too. Let the pump idle for 10-15 minutes at 500-600 rpm. Then shut down the pump by turning the FUEL-SHUT OFF valve before you move the starter switch to STOP. Otherwise, fuel collects in the carburetor. Next time you start the engine it could backfire and burn somebody—or the engine won't start at all.



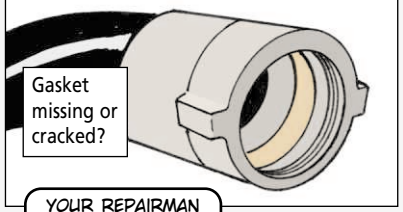




DON'T FORGET PUMP PM



BEFORE YOU GO TO THE FIELD, CHECK ***BOTH*** THE INLET AND OUTLET HOSE CONNECTORS FOR GASKETS. IF A GASKET IS MISSING OR CRACKED, THE PUMP CAN'T BUILD UP ENOUGH PRESSURE TO PUMP WATER.



IN THE FIELD, DON'T FASTEN EITHER HOSE MORE THAN HAND-TIGHT. IF YOU OVERTIGHTEN EITHER HOSE, YOU'LL STRIP THE THREADS. THAT'S THE LAST TIME YOU'LL BE ABLE TO FASTEN THAT HOSE TIGHT.

WHEN *MUST* CANISTERS BE *CHANGED?*

Dear Half-Mast,

How often must NBC NCOs change the canisters on the M40/M42-series masks in order to protect soldiers from agents like anthrax?

SFC J.P.

Dear Sergeant J.P.,

If you're operating where there have been no chemical attacks and no blood agent CK (cyanogen choloride) 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 experienced chemical attacks, change the canister every 30 days.

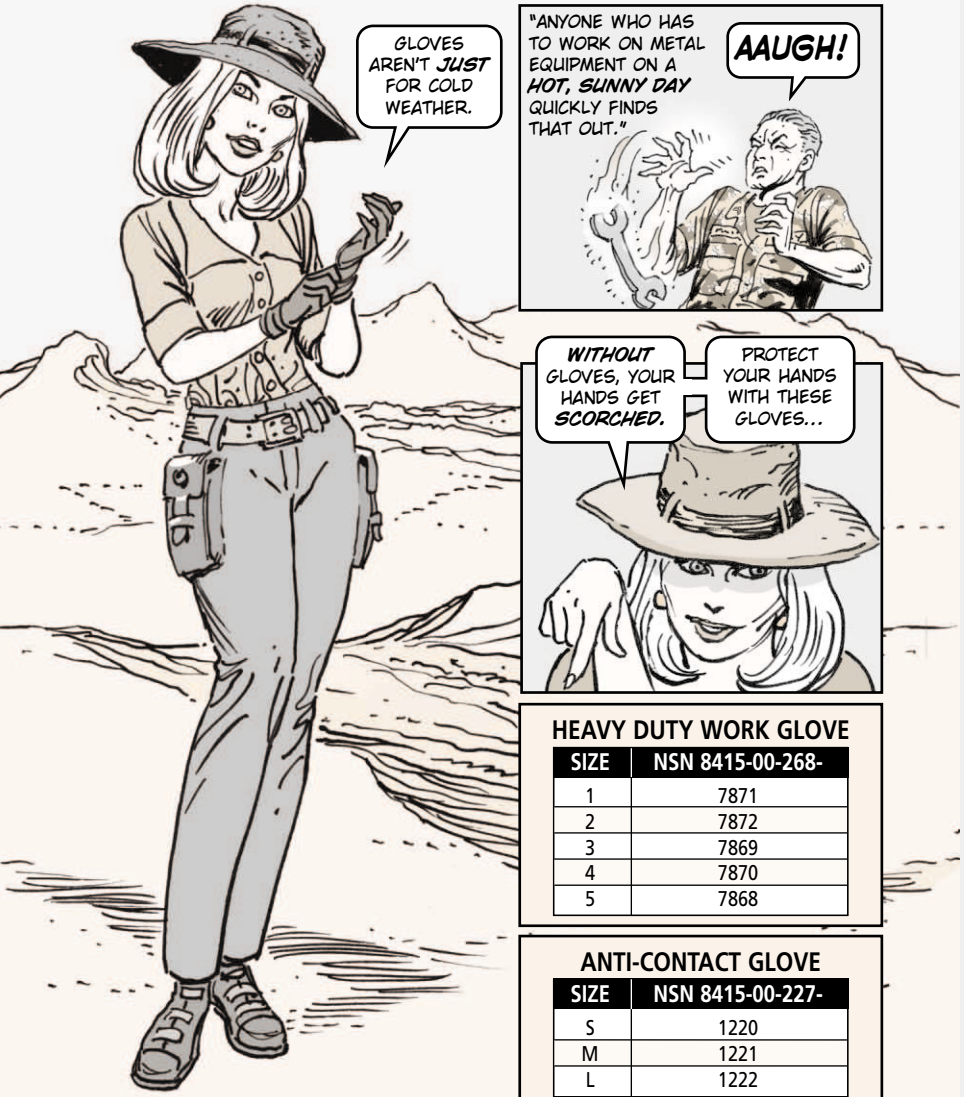
Whenever a soldier has trouble drawing breath through the canister, it should be changed.

For more information, see FM 3-4, NBC Protection. *If you don't have a copy, your pubs clerk can order it with IDN 110736 and PIN 058794.*

SB 3-30-2, Canister and Filter Elements (Serviceability Lists), *has info on which canisters are still good. It's part of EM 0045, the CD-ROM that contains most of the NBC TMs. Unopened canisters have a 5-year renewable shelf life.*

Half-Mast

Bare Hands, HOT METAL Don't Mix



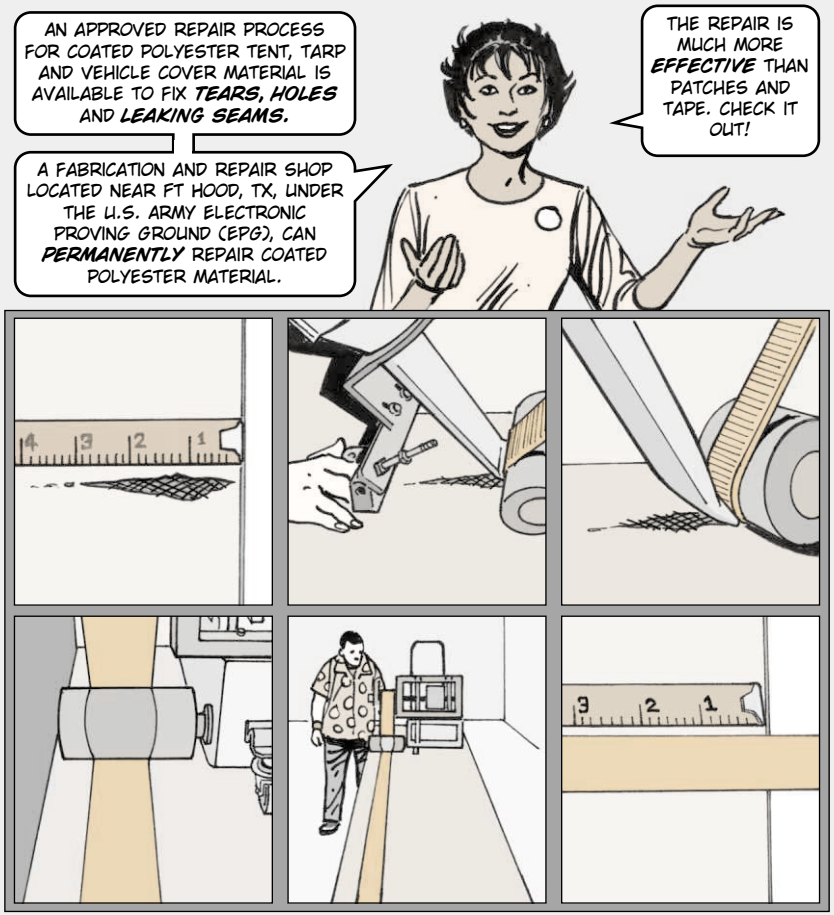
HEAVY DUTY WORK GLOVE

SIZE	NSN 8415-00-268-
1	7871
2	7872
3	7869
4	7870
5	7868

ANTI-CONTACT GLOVE

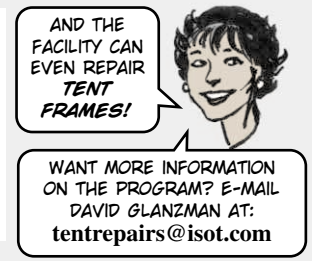
SIZE	NSN 8415-00-227-
S	1220
M	1221
L	1222

Coated Polyester Material Repair



SINCE REPAIRING *TENTS, TARPS* AND *VEHICLE COVERS* IS MUCH LESS EXPENSIVE THAN BUYING NEW ONES, YOUR UNIT CAN SAVE MONEY.

FOR INFORMATION AND ESTIMATES ON REPAIR COSTS FOR YOUR TENTS, TARPS AND COVERS, CALL THE ELECTRONIC PROVING GROUND TEXTILE FACILITY, (254) 680-9750. THE FACILITY CAN ACCEPT GOVERNMENT CREDIT CARDS AND MILITARY INTERDEPARTMENTAL PURCHASE REQUESTS (MIPRS).



POST SCRIPTS

PS 595
JUNE 02

PLGR Fuse NSN Correction

Change the NSN for the PLGR power cable fuse listed on Page 53 of PS 591 from NSN 6150-01-382-1551 to NSN 5920-00-280-4960. The NSN given in PS is for a cable assembly and not a cartridge fuse.

MAP ORDERING UPDATE

Page 61 of PS 586 told you where to go to order maps. We didn't tell you that when you order maps from the National Imagery and Mapping Agency (NIMA), you use your ULLS S-4 DODAAC. If you don't have one, use your unit's PBO DODAAC. You are not authorized a separate DODAAC for maps. The only exception is for *Flight Information Publications* (FLIP). If you need a FLIP DODAAC, contact SFC White at DSN 656-4870, (703) 806-4870, at the U.S. Army Aeronautical Services Agency in Ft. Belvoir, VA.

Need maps? Go to:

http://www.dscr.dla.mil/pc9/rmf.htm

or contact the DSCR Richmond Map Facility, 1-800-826-0342, then press 5, or you can call DSN 695-4341. (The address on DLA Form 1832 must match the address on the DODAAC you are using.)

M871A2 RESISTOR KIT

To get a 95-watt resistor kit to handle extra marker lights on your M871A2 trailers, order NSN 5905-01-396-7097. The kit does not replace Item 2 in Fig 7 of TM 9-2330-386-14&P, but it may be needed to power the extra lights. Installation instructions come with the kit.

CIE NSNs ON THE WEB

Having trouble finding the NSNs for clothing and individual equipment (CIE)? Check out

http://ct.dscp.dla.mil/Ascot

on the Internet. It lists NSNs for most of the Army's CIE. Before ordering, though, check SB 700-20 to make sure the NSN is authorized for the Army.

ODS Bradley VDB

Need a new vehicle distribution box (VDB), NSN 6110-01-442-8080, for your **ODS Bradley**? Then make sure you put advice code **2B** in card columns 65-66 of your requisition form. Leave it blank and you might get distribution box, NSN 6110-01-201-7880, as a substitute VDB. That box doesn't have the J20 plug required for the ODS Bradley.

Improved HMMWV Turret Bearing

When the weapon station turret bearing fails on your armored HMMWV, it must be replaced with NSN 3110-01-480-5857. In order to install the new bearing, special repair materials and instructions must be used. A list of materials and the installation instructions are available from TACOM (e-mail **mcinernj@tacom.army.mil**, DSN 786-2722, (586) 574-2722) or from MSG Half-Mast (e-mail **psmag@logsa.army.mil**, DSN 645-0893, (256) 955-0893).

New Nuts for MLRS

Switch your MLRS to self-locking nuts with nonmetallic insets on the cab hinge, roadwheels and track pads. They hold better than the ones currently listed in TM 9-1450-646-24P. Use NSN 5310-00-068-8067 for Item 8 in Fig 1 and Item 78 in Fig 171. Use NSN 5310-00-175-2710 for Item 5 in Fig 9, Item 4 in Fig 13, and Items 13, 15 and 21 in the KITS section.

FMTV Crane Clevis Clamp

Users of M1084/M1084A1, M1086/M1086A1 and M1089/ M1089A1 FMTVs equipped with a crane need clamp, NSN 4030-00-042-7882, to complete TACOM Maintenance Advisory Message 02-018. Read Para (c), Page C-5, of TB 43-0142, *Safety Inspection and Testing of Lifting Devices,* in addition to the MAM, to correctly install the clamps.

Avenger Camouflage NSN Wrong

Don't order the NSN for Avenger camouflage listed on Page 43 in PS 592 (Mar 02). It's not the correct camouflage for the Avenger. The camouflage for the Avenger is radar-transparent camouflage, not radar-scattering. The NSN listed in the article is for the ultra-lightweight camouflage net system (ULCANS), woodland radar-scattering, which currently can't be ordered as a replacement for the lightweight camouflage screen system (LCSS). ULCANS is currently authorized only for initial issue and to replace already fielded ULCANS. To order LCSS camouflage for the Avenger, use NSN 1080-00-103-1322 for woodland radar transparent and NSN 1080-00-103-1217 for desert radar transparent.

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?