

Issue 637

PS

December  
2005

# THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-637

Approved for  
Public Release;  
Distribution is  
Unlimited

GIVE HEED TO MY  
WARNINGS. PM IS  
ALL THAT LET'S  
YOU SLEEP WELL  
AT NIGHT!

JOE  
KUBER

FROM  
SANTA

TALES OF  
FAILED  
PM

See page 27

# STAYING ON THE VERIFICATION TRACK



As too many Army units discovered when they were mobilized for Afghanistan or Iraq, if your equipment has not had its required verifications, it's non-mission capable.

That's the last thing a commander wants to hear when his unit is preparing to deploy. So the news won't make him happy with you. And, when you cart all your equipment over to direct support and tell them you need all these items verified yesterday, you can be sure you're out of the running in their "My Favorite Soldier" contest.

What must be verified by support? All small arms, most night vision and missile sights, TMDE stuff, and chemical, radiation and biological detectors have semiannual or annual verification requirements. If you're not sure if your equipment must be verified, look in the TMs' PMCS tables. Or ask support. They will know.

The hard part is not letting the verifications slip by in the rush of daily work. Here are some good ways to stay on the verification track:

- Note in the REMARKS block on your DD Form 314s when the next verification is due.
- In ULLS, track verifications on DA Form 5988-E.
- On a large piece of cardboard, mark off columns for ID number, date serviced, next due date, status, and remarks. Cover the board with acetate (self-help probably has some) and use a grease pencil to keep the board up-to-date.
- Create a computer data base for tracking verifications. We told you how to do that on Page 18-19 in PS 596 (Jul 02). If you don't have that issue, see

[https://www.logsa.army.mil/pub/psissues/ps\\_596.pdf](https://www.logsa.army.mil/pub/psissues/ps_596.pdf)

Staying on track with verifications will keep your equipment safe and accurate and will keep you popular with your commander and support.



THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY

TB 43-PS-637, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.

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

Just write to:  
MSG Half-Mast  
PS, the Preventive Maintenance Monthly  
USAMC LOGSA (AMXLS-AM)  
5307 Sparkman Circle  
Redstone Arsenal, AL 35898-5000  
Or e-mail to:  
psmag@logsa.redstone.army.mil or  
half\_mast@us.army.mil  
Internet address:  
<https://www.logsa.army.mil/psmag/pshome.html>

By order of the Secretary of the Army:  
**PETER J. SCHOOMAKER**  
General, United States Army Chief of Staff

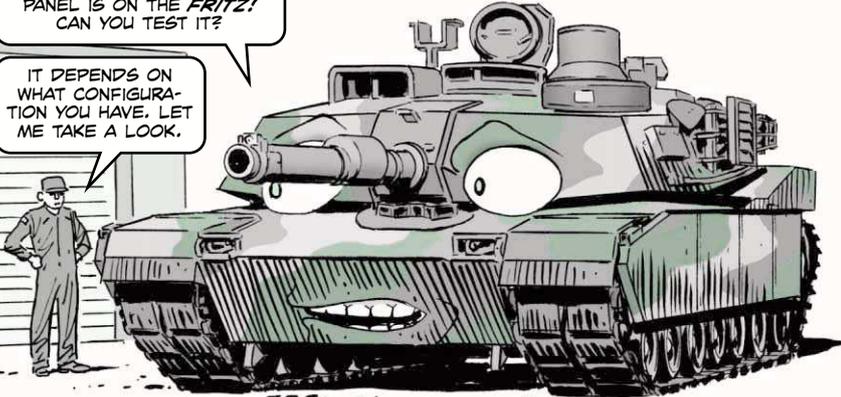
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# WHO YA GONNA CALL?

MY POWER DISTRIBUTION PANEL IS ON THE FRITZ! CAN YOU TEST IT?

IT DEPENDS ON WHAT CONFIGURATION YOU HAVE. LET ME TAKE A LOOK.



There are several configurations of the commander's power distribution panel on the M1A1 tank. Most of them can be tested using the direct support electrical system test set (DSESTS) with the operator interface unit (OIU).

The only exception is the latest panel, NSN 6110-01-497-3343 (PN 12549797-3). That panel can be tested **only** using the DSESTS with the common support function module (CSFM) using DSPS 32.1 software.

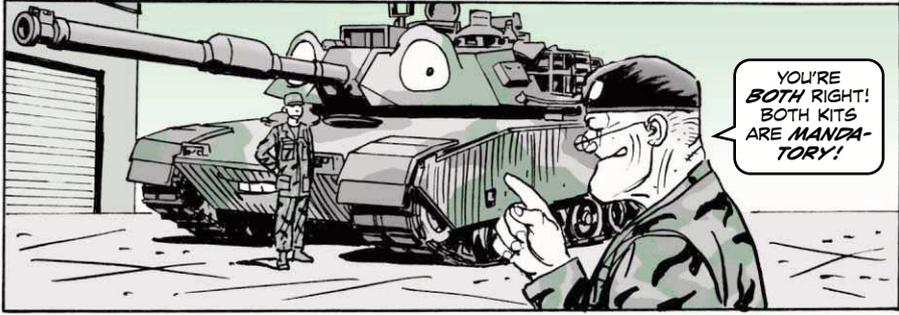
If your unit has the new panel, but does not have the capability to test it, go to the PM Combat Systems web site: <http://www.teamarmordiagnostics.com>

ONCE THERE, CLICK ON POINTS OF CONTACT IN THE LEFT-HAND COLUMN.

THE POCs ARE LISTED UNDER ABRAMS PROGRAM MANAGEMENT OFFICE AND WOLVERINE AND INTEGRATED LOGISTICS SUPPORT.



# You Need Both Kits



Mechanics, it's not surprising if you're confused about what you're supposed to do during annual and semiannual PMCS for M1A1 and M1A2 tanks.

Why? Because only the semiannual kit, NSN 2540-01-255-3347 (PN 5705438), was listed under *Mandatory Replacement Parts* on Page 2-9 in TMs 9-2350-264-20-2-1 and 9-2350-288-20-2-1.

Although the annual kit, NSN 2530-01-117-7943 (PN 5705145), was left out, it's scheduled to appear in the next update to both TMs. Make a note until that happens.

Once you have the kits, make sure you know when and how to use them. Semiannual PMCS must be performed every six months, every 150 vehicle operating hours, or every 1,500 miles (2,400 kilometers), whichever comes first. Annual PMCS must be performed every 12 months, every 300 vehicle operating hours, or every 3,000 miles (4,800 kilometers), whichever comes first.

When you perform the annual PMCS, you must also perform the semiannual PMCS. **All parts** included in the annual and semiannual kits are **mandatory** replacement parts.

# EXTRACTING A SOLUTION

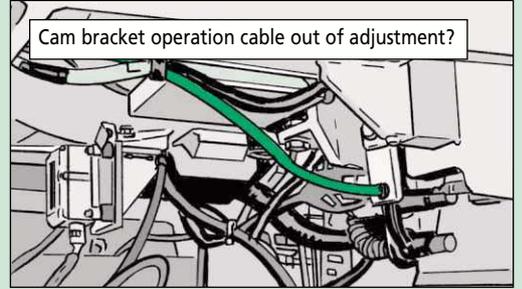


LOOKS LIKE YOU'VE STILL GOT THAT FLASHBACK PROBLEM!

MAYBE MASTER SERGEANT HALF-MAST CAN HELP!

Dear Half-Mast,  
 We're currently going through gunnery and have had some problems with one of our M1A1 tanks. When the tank fires, the breechblock doesn't drop to allow the aft cap to be ejected from the chamber. Since we have to manually extract the aft cap, there's the additional worry about unburnt propellant and gasses causing flashback in the turret.  
 We've cleaned and lubed the breech well. The tank seems to fire and recoil with no problems. Any idea what could be causing the situation?  
 CW3 J.H.

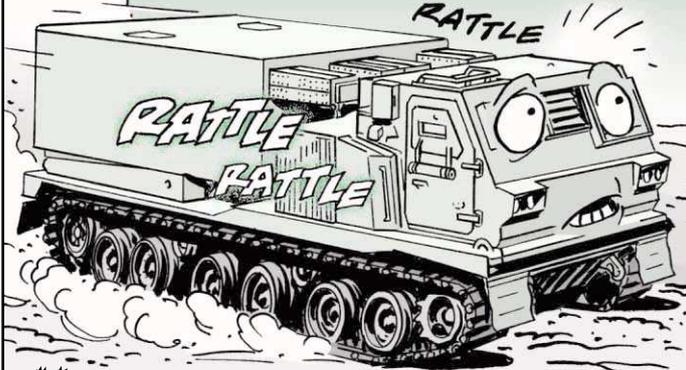
Dear CW3 J.H.,  
 From what you've said, it sounds like you may need to adjust the cam bracket operation cable.  
 If the cable is too far out of adjustment, the crank boss misses engagement with the cam bracket during the counter-recoil stroke. That's what mechanically cycles the breech open so the extractors can expel the aft cap.  
 The adjustment procedures for the cam bracket operation cable start on Page 8-70 of TM 9-2350-264-20-2-4 (Apr 03), Page 8-55 of TM 9-2350-288-20-2-4 (Aug 95), and Page 8-61 of TM 9-2350-388-20-2-4 (Feb 01).



If the ejection problem still exists after you adjust the cable, take a look at the extractors themselves. There is a small lip machined on the upper inside edge of each extractor. These lips are what grab the aft cap and extract it. If they wear down or break, they won't grab like they should.  
 I'd also suggest that you manually exercise the mount. Use the M-3 oil pump and get the mount out far enough that the lobe on the crank extends past the cam (about 10 inches). With the manual handle in the armed (down) position, you should be able to see the cam snap into position. Then you can let the mount back into battery and watch the breech operation.

M2/M3, M2A2/M3A2 Bradleys, MLRS Carrier...

# 16 LB-FT IS JUST RIGHT



THAT RATTLING IS DRIVING ME CRAZY! WHAT IS IT?

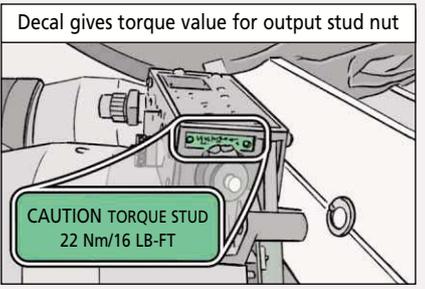
THE MECHANIC DIDN'T TORQUE MY GENERATOR'S OUTPUT STUD NUT TO 16 LB-FT!

**M**echanics, when you're working on the Bradley or MLRS' 300-amp generator, NSN 6115-01-458-0096, have some mercy on the output stud nut.

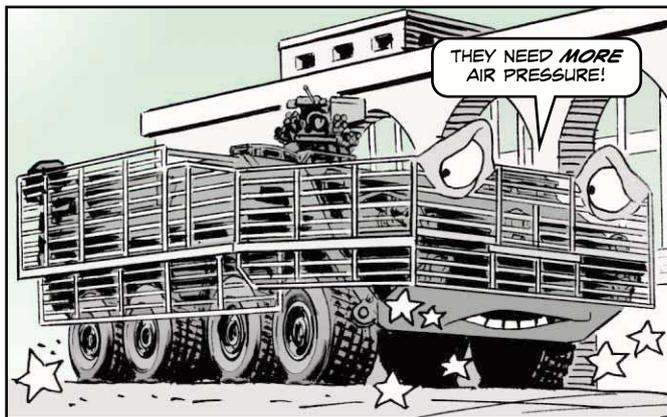
There should be a decal beside the stud nut that lists the proper torque requirement of 16 lb-ft. When some generators were rebuilt, however, the decal was removed.

As a result, some mechanics don't tighten the stud nut enough while others tighten it too much. Too loose and the nut will vibrate free. Too tight and the insulator may be damaged.

And no Loctite, either. That affects the torque value and can cause damage.



# RAISE THE PRESSURE



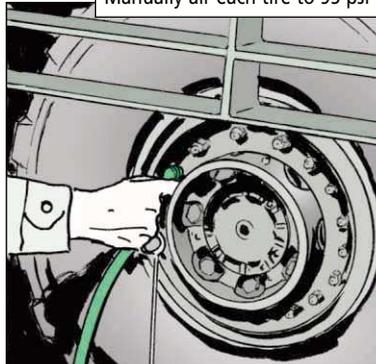
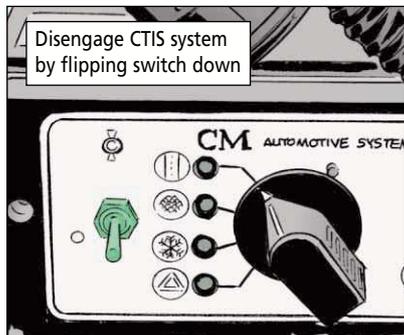
**D**rivers, the highest air pressure setting for your Stryker's CTIS system is 80-85 psi. That's just not high enough for vehicles equipped with slat armor in Iraq. You'll run through tires quicker than a NASCAR driver at those lower pressures.

The optimum air pressure for Stryker tires in Iraq is 95 psi. So how do you get it that high?

First, disengage the CTIS system by flipping the switch on the driver's panel. If you leave the system on, it'll automatically lower the pressure back to 80-85 psi, no matter how much air you add.

Next, manually inflate the tires to 95 psi using the air hose and inflation system that comes equipped on each vehicle.

Manually air each tire to 95 psi



If you haven't noticed already, the 6-ft air hose, NSN 4910-21-920-4694, that comes in your Stryker's BII doesn't reach very far. That leaves you with only a few options. You can pull another Stryker up next to each of your tires and air up from that vehicle or you can local purchase a longer, 25-ft hose.

The third option is ordering a 50-ft hose assembly, NSN 4720-01-166-1087, and a pipe coupling, NSN 4730-00-223-9255, to extend your BII air hose. Here's how:

1. Unscrew the quick-disconnect fitting from the end of the gauge assembly.
2. Screw one end of the hose extension into the gauge assembly.
3. Screw the pipe coupling onto the other end of the hose extension.
4. Screw the quick-disconnect into the other end of the pipe coupling and hook it to the Stryker's air outlet.

MAKE SURE YOU CHECK THE TIRES OFTEN TO KEEP THE AIR PRESSURE AT 95 PSI.



# Mileage Limit on TOWs?

LOOKS LIKE YOUR TOWS HAVE 2,000 MILES ON THEM. TIME TO CHANGE 'EM OUT.

NO NEED TO DO THAT. THERE'S **NO** MILEAGE LIMIT ON TOWS.



Dear Half-Mast,  
We've been told to keep track of how many miles our Strykers travel with TOW missiles loaded. The reason is supposed to be that after TOWs have bumped along for 2,000 miles they need to be turned in because that much vibration affects their gyros. Is this valid?

SGT A.B.

Dear Sergeant A.B.,  
No, it isn't. The Army tested TOWs after 2,000 miles of vibration and found the missiles still passed all tests. So you don't need to track mileage on your TOWs.

*Half-Mast*

# THE SEARCH IS OVER

WE'VE GOT A PROBLEM!

YOUR TOWBAR IS BROKEN AND I CAN'T FIND ANY REPAIR PARTS!

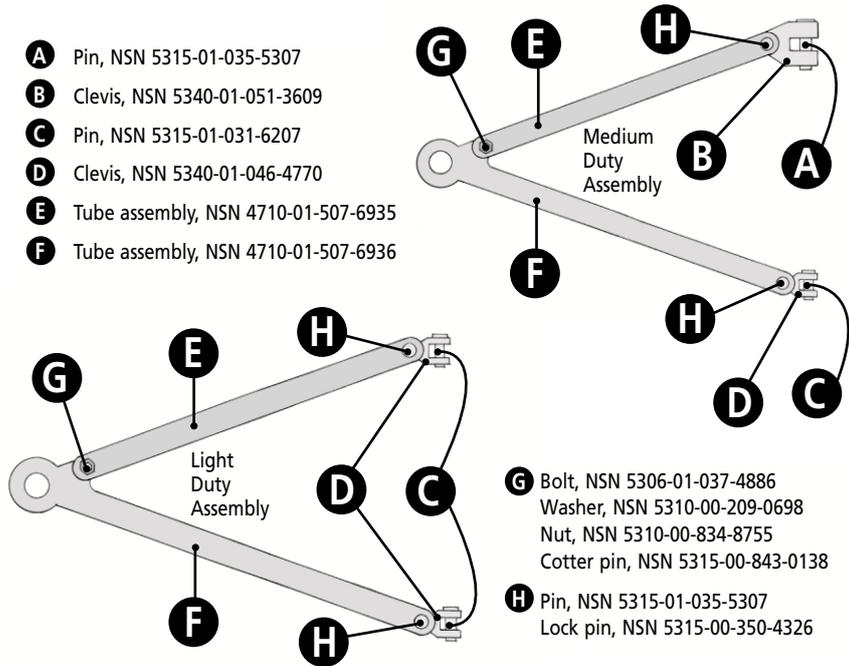


PS CAN HELP!

Need some repair parts for your M113A3 FOV's towbar, NSN 2540-00-936-7801? They've been kinda hard to find—at least until now.

Order from this list of components to repair your towbars.

- A** Pin, NSN 5315-01-035-5307
- B** Clevis, NSN 5340-01-051-3609
- C** Pin, NSN 5315-01-031-6207
- D** Clevis, NSN 5340-01-046-4770
- E** Tube assembly, NSN 4710-01-507-6935
- F** Tube assembly, NSN 4710-01-507-6936



- G** Bolt, NSN 5306-01-037-4886  
Washer, NSN 5310-00-209-0698  
Nut, NSN 5310-00-834-8755  
Cotter pin, NSN 5315-00-843-0138
- H** Pin, NSN 5315-01-035-5307  
Lock pin, NSN 5315-00-350-4326

# ARE YOU A GUN CARD USER?

DON'T THINK FILLING OUT THE DA FORM 2408-4, WEAPON RECORD DATA CARD, IS IMPORTANT?

THINK AGAIN!



Neglecting this duty leads to expensive cannon tubes being replaced early. Even worse, some cannon tubes continue to be used when they should be condemned. Very unsafe!

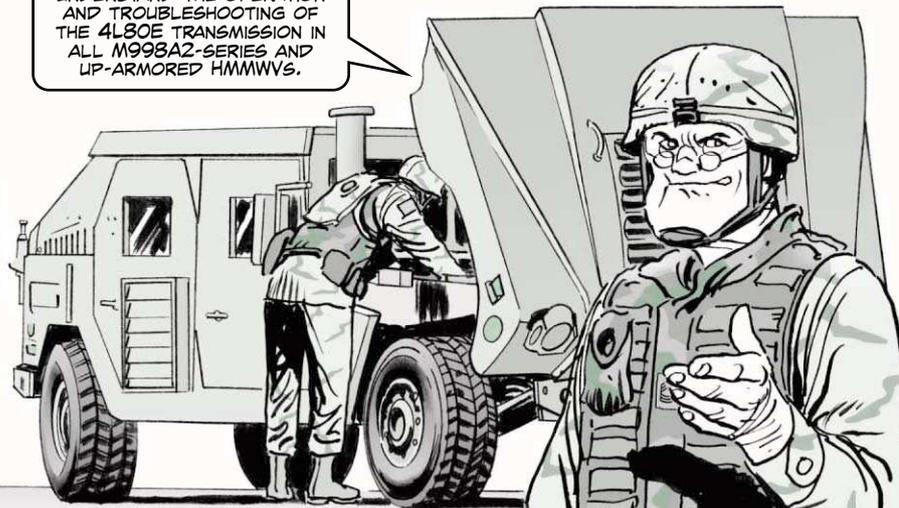
Unfortunately, a lot of users aren't updating their cards on the Army Electronic Product Support (AEPS) website (<http://aeprs.ria.army.mil>). In fact, for M1-series tanks alone, more than 2,500 gun cards haven't been updated in the last 12 months!

DA Pam 750-8 (Feb 05), *The Army Maintenance Management System (TAMMS) Users Manual*, makes the unit commander responsible for designating someone to update the unit's gun cards.

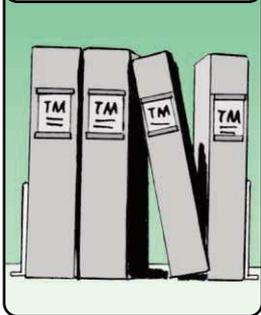
All units should check their lists of authorized users at the AEPS electronic gun card website. Make sure all inactive or obsolete users are eliminated. Update all email addresses and make sure only AKO addresses are used. That will help reduce the amount of email traffic and the number of inactive gun card users.

# 4L80E TRANNY TROUBLESHOOTING

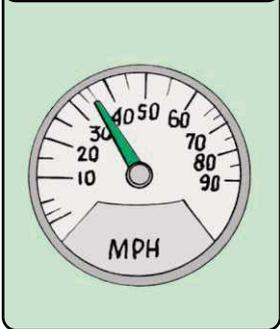
REPORTS FROM SWA INDICATE THAT SOME DRIVERS AND UNIT MECHANICS DON'T QUITE UNDERSTAND THE OPERATION AND TROUBLESHOOTING OF THE 4L80E TRANSMISSION IN ALL M998A2-SERIES AND UP-ARMORED HMMWVs.



JUST ABOUT EVERYTHING UNIT LEVEL OPERATORS AND MECHANICS NEED TO KNOW ABOUT THE 4L80E CAN BE FOUND IN TMS 9-2320-280-10 AND -20-1 AND TMS 9-2320-387-10 AND -24-1.



OPERATORS, WHEN THE TRANSMISSION WILL **NOT** SHIFT INTO THIRD GEAR AFTER REACHING ABOUT 35 MPH, DON'T EXCEED 35 MPH AND GET YOUR TRUCK TO YOUR MAINTENANCE FACILITY **ASAP**.



MECHANICS, WHEN A DRIVER TELLS YOU ABOUT THE TROUBLE MENTIONED ABOVE, GO DIRECTLY TO SECTION 2-35 OF THE -280-20-1 TM OR SECTION 2-40 OF THE -387-24-1 TM (OR FIND BOTH IN ETM 0030).



EVERYTHING YOU NEED TO TROUBLESHOOT CAN BE FOUND IN THESE SECTIONS.

- You will also need some special tools noted in the TMs:
- Diagnostic switch cable, NSN 6150- 01-410-8215
  - Throttle position switch (TPS) cable, NSN 6150-01-412-7774
  - TPS block gauge, NSN 4820-01-179- 4869

HERE'S SOME *EXTRA* INFO...



If a HMMWV with a newly installed transmission goes into "limp mode" (won't shift out of second gear) right away, it could have the wrong erasable programmable read-only memory (EPROM) chip installed. 1995 and 1996 Model 4L80E transmissions require EPROMs that are matched to the model year of the transmission. 1997 and newer transmissions can use the latest model of EPROMs. For training or assistance to troubleshoot the 4L80E transmission, contact your local TACOM logistics assistance representative (LAR).

HEMTT, PLS...

## CARGO NET AND RACK



USE NSN 2590-01-522-8060 TO GET AN ADJUSTABLE CARGO NET AND RACK KIT.

Scattered cargo is the last thing a driver wants to see while looking in his rearview mirror.

To keep cargo in place, use the adjustable cargo net and rack kit that comes with NSN 2590-01-522-8060. The rack fits above the vehicle's cab. It fits both the HEMTT and PLS and requires only a 1/16-in socket wrench for installation.

The net fastens around the rack. A three-position molded nylon clamp locks a cinching rope, which goes around the entire net. Each net comes with a storage bag and attachment instructions.

By the way, these kits will **NOT** fit HEMTTs and PLSs with up-armor kits installed on the vehicle.

Turbocharged HMMWVs...

YOUR ENGINE TEMPERATURE GAUGE HIT 230°F!

GUESS THAT MEANS YOU'RE NMC!

NOPE! NOT ANYMORE! TACOM MAM 05-037 RAISED MY LIMIT!

## COOLANT TEMP LEVEL INCREASED

TM 9-2320-387-10 (Oct 97, w/Ch 2) says HMMWVs with 6.5 liter turbocharged engines (M1113, M1114, M1116, M1151, and M1152) that run at coolant temperatures above 230°F are NMC.

But, according to the manufacturer's specs, those engines are designed to withstand a maximum top tank temperature of 250°F (±5°F).

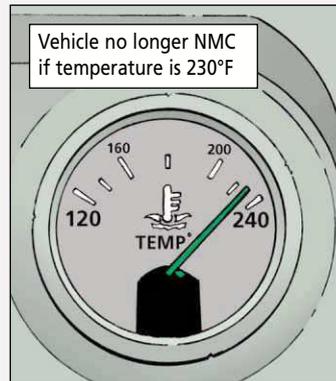
So what does that mean to you?

According to TACOM maintenance advisory message (MAM) 05-037, a temperature gauge that reads about 230°F no longer makes the vehicle NMC. If the temperature gauge reaches 240°F, you should use caution and be aware of the vehicle's performance. If the HMMWV's transmission defaults to second gear, slow down if the OPTEMPO permits.

Until TM 9-2320-387-10 can be updated, pencil in this change to PMCS Item 16c on Page 2-39. For the straight scoop, check out the MAM on-line:

[https://aeps2.ria.army.mil/commodity/mam/tacom\\_wn/05/mam05-037.html](https://aeps2.ria.army.mil/commodity/mam/tacom_wn/05/mam05-037.html)

You'll need a AEPS username and password to view the MAM. You can also access it using your AKO username and password.

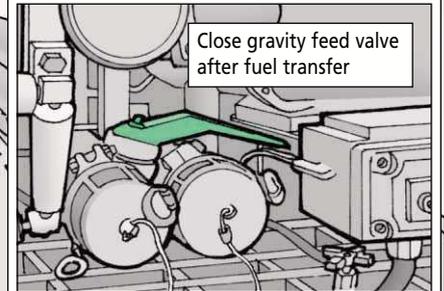


M978 HEMTT Tanker...

SMELL FUEL?

Operators, just remember that "What goes on, must go off."

It's OK to use the free flow (gravity feed) valve for bulk fuel transfer from your fuel tanker. But for your sake, remember to turn the valve off when you're finished.



Leave the valve on and you'll end up spilling gallons of fuel on the road when you head up an incline. When that happens, you'll soon make the acquaintance of your environmental folks. And that's one meeting you want to avoid!

## M1101/M1102 Mounting Bracket

Use NSN 5340-01-516-8875 to get the mounting bracket for the landing leg on these 2-wheel cargo trailers for the HMMWVs. Make a note until this NSN is added to Fig 33 of TM 9-2330-392-14&P.

## FMTV - Buyer Beware

Vendors sell products directly to Army posts, camps and stations. No news there, right? Problem is, buying products that way, off line, bypasses the vehicle's program manager. That means you operators and mechanics could be left with an unsafe and unapproved product, not to mention lack of logistical support. So play it safe and order items only from the vehicle's technical manuals.

# No-Hassle Connections



WE'VE GOTTA SPLICE THAT WIRE OR WE'RE NOT GOING ANYWHERE!

BUT WE DON'T HAVE THE TOOLS AND CRIMP CONNECTORS WE NEED!

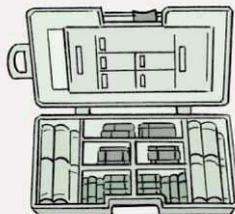
**Y**ou're in the field and need to make a minor electrical repair to your vehicle. You don't have any crimping or splicing tools. Chances are you don't have any connectors or terminal ends to use either.

So you have to make do with what's on hand. What should be an easy task ends up being a frustrating, time-consuming job that may or may not keep your vehicle running.

Sound familiar?

Those old jury-rigged field fixes are a thing of the past. A new connector assembly repair kit, NSN 5940-01-518-2091, is now available that makes electrical repairs quick and easy without any special tools.

The kit comes in a small plastic case that makes it easy to bring with you to the field. Each kit contains three different size connectors. You get 20 red connectors for 18-24 gauge wire, 14 blue connectors for 12-18 gauge wire, and 16 yellow connectors for 8-10 gauge wire.



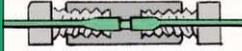
Connector kit comes in easy-to-carry plastic case

### Here's how they work:

1. Strip 3/8 inch of insulation from wire.

2. Insert wire through male end.

3. Hand-tighten male end into female body.



4. Repeat steps 1-3 for the other side of the connector.

The wire ends are locked between opposing cone shapes in the male and female ends of the connector. The connectors are just as easily disconnected and are reusable, making them perfect for mobile connections in the field.



REPLACEMENT CONNECTORS ARE ALSO AVAILABLE FOR THE KIT. ORDER FROM THIS LIST...

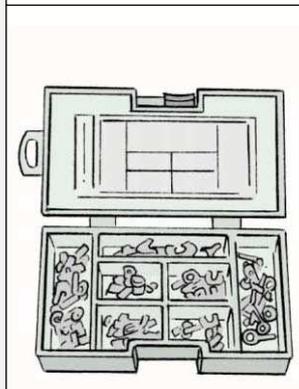
Connector	NSN 5940-01-518-	Qty
Red (18-24 gauge)	2308	10
Blue (12-18 gauge)	2093	8
Yellow (8-10 gauge)	2307	7

## Terminal End Kit

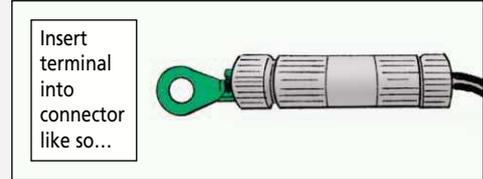
A terminal end kit is available for use with the connector assemblies. The kit, NSN 5940-01-517-7731, includes 20 each of the following terminal ends:

Terminal Type	Size	Gauge
Ring	#10	18-24
Spade	#10	18-24
Ring	#10	12-18
Spade	#10	12-18
Ring	1/4 inch	8-10
Spade	#10	8-10

120-piece terminal end kit comes with NSN 5940-01-517-7731



The end of each terminal has a forked prong that wedges against the metal plug in the center of the connector. Simply insert the terminal end all the way into the male connector. Then screw the male connector into the female connector.



Refills are also available for the terminal end kit. Each NSN brings only one, so order the quantity you need.

Item	NSN 5940-01-517-
1/4-in ring, 8-10 gauge	7814
#10 ring, 12-18 gauge	7738
#10 ring, 18-24 gauge	7737
#10 spade, 8-10 gauge	7735
#10 spade, 12-18 gauge	7732
#10 spade, 18-24 gauge	7718



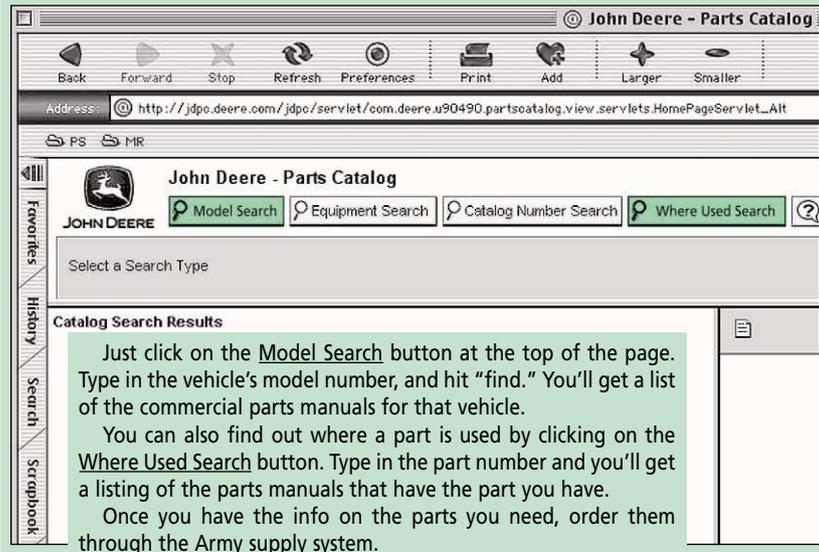
THE NSNs FOR BOTH KITS AND ALL REFILLS MUST BE ORDERED ON A DD FORM 1348-G WITH "NSN NOT ON AMDE" IN THE REMARKS BLOCK.

# JOHN DEERE WEBSITE

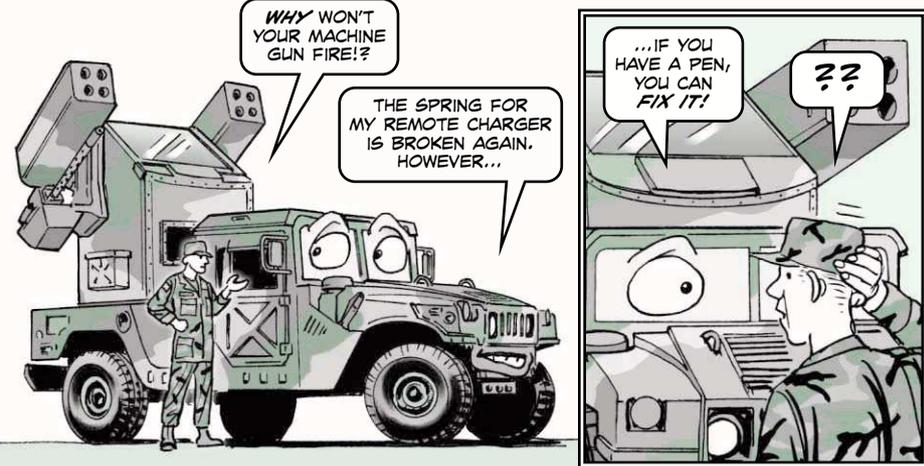


Engineer units searching for parts for John Deere equipment can use the company's on-line parts catalogs to find info that may not be in the TMs. Take a look at:

[http://jdpcc.deere.com/jdpcc/servlet/com.deere.u90490.partscatalog.view.servlets.HomePageServlet\\_Alt](http://jdpcc.deere.com/jdpcc/servlet/com.deere.u90490.partscatalog.view.servlets.HomePageServlet_Alt)



# REMOTE CHARGER SPRING BROKEN?



Dear Editor,

As any experienced crew is keenly aware, a trouble spot in the Avenger is the spring for the M3P machine gun's remote charger. It often breaks or disappears. Then you can't fire the M3P.

We've found a good field fix is the spring from an Army ballpoint pen.



We've substituted the pen spring and kept right on firing. Then we get the spring replaced when we return from the field.

SGT C N  
1/62 ADA  
Ft Lewis, WA

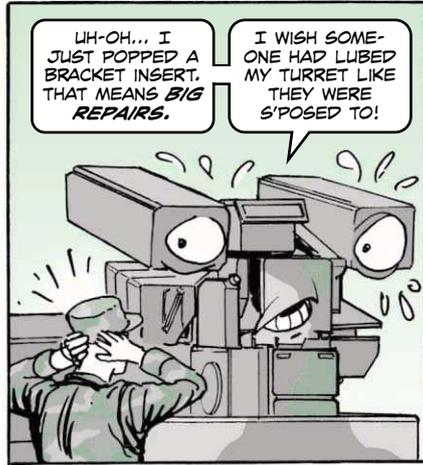
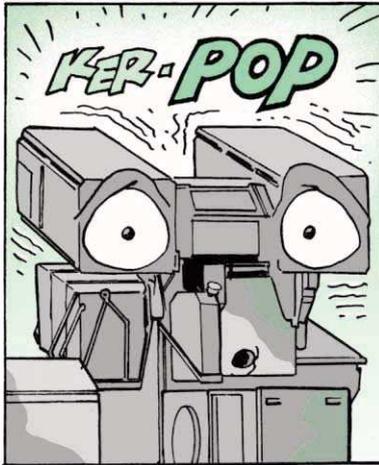
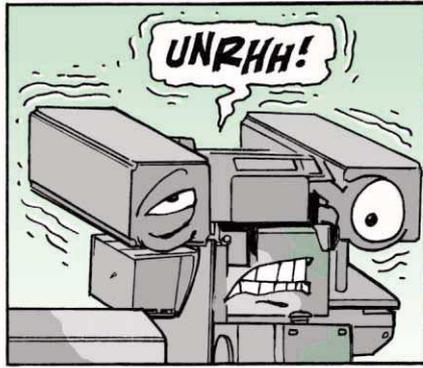
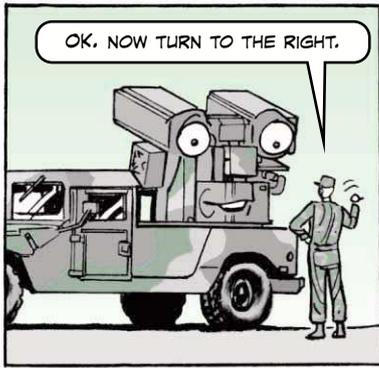
*Editor's note: As a very temporary fix, the pen spring is OK. But a better way to prevent this problem is to check the remote charger spring before you go to the field. Make sure the spring is in place and is not corroded or weak. And since the spring has a history of breaking, your repairman should take extras to the field.*

Make sure spring is in place and in good shape before going to field



Order the spring with NSN 5360-13-116-1983.

# LUBE RIGHT FOR SMOOTH ROTATION



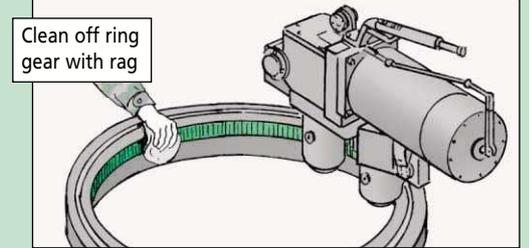
Some Avenger missile repairmen think they can take care of the semiannual lubing of the turret ring gear/azimuth assembly by just squirting lube through the access cover.

It just isn't so! To do a proper lubing job, you have to first clean off the old grease, which means de-mating the turret from the HMMWV. If you don't, the old grease hardens and makes it difficult for the turret to turn. That can break ring gear teeth or cause the inserts for the azimuth motor bracket to pop out. If that happens, you'll have to get depot repairmen to pay a trip to your unit to repair the damage.

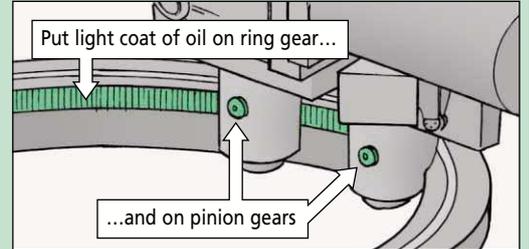
Same thing can happen if you don't use the right lube. The wrong lube can soon turn to sludge and make turning the turret a strain.



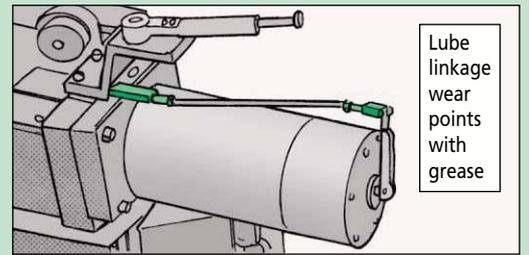
After you de-mate the Avenger, clean the old grease off the ring gear with a rag. Being careful to keep your hands away from the pinion gears, rotate the turret in small increments as you wipe off the old oil from the azimuth drive pinion gears.



Make sure the ring gear and pinion gears are clean and free of obstructions. Apply a light coat of molybdenum disulfide lubricating oil, NSN 9150-01-217-3103, onto the ring gear and pinion gears.



Manually rotate the turret two complete revolutions to work in the lube. Wipe off excess lube from the ring gear and pinion gears.



Lubricate the linkage wear points with arresting gear grease, NSN 9150-01-237-7468.



# How Do I Get A Mount Poster?

THIS POSTER HAS WHAT WE NEED TO WORK TOGETHER!

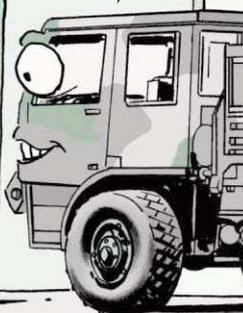
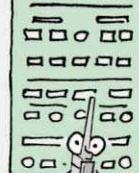
ALL THE PARTS AND NSNs ARE HERE!

Dear Half-Mast,  
Thanks for the article in PS 621 (Aug 04) on all the mounting options for machine guns. It answered a lot of our questions on what was needed for different vehicles and the NSNs for ordering mounts and supporting hardware. We heard there is now a poster showing that information. How can we get it?  
SGT B.R.

Dear Sergeant B.R.,  
Your pubs clerk can order DA Poster 750-97 through your pubs account.

*Half-Mast*

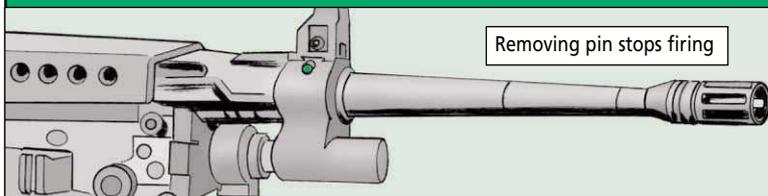
MOUNTS



M249  
Machine  
Gun...

## LEAVE THAT PIN ALONE!

Some M249 machine gunners are removing the short pin that holds the gas regulator collar on some short barrels and replacing it with a longer pin from the standard M249 barrel or the newer short barrel. They figure a longer pin will keep the heatshield from rotating on the barrel. Bad move!



The pin is supposed to be permanently installed and is considered a non-repairable item. Once the pin has been removed, the holes for the gas system in the collar and barrel won't line up properly. Then the gas system doesn't have enough gas to force the bolt back and the M249 stops firing. And there's nothing you can do to fix it other than replacing the \$814 barrel. Hands off that pin!

## BORESKOPING CHANGES E-X-T-E-N-D BARREL LIFE

HEY, GOOD NEWS!  
THEY'VE CHANGED  
THE STANDARDS ON  
YOUR BARREL!

HOORAY!  
YOU WON'T  
NEED TO  
REPLACE ME  
AFTER ALL!



Good news, mortar units! The Army has changed the condemnation limit on M224 mortar cannon tubes from 2.411 inches to 2.421. That means you will be able to use the tubes longer. But the change means you will need to update parts of TM 9-1000-202-14, *Evaluation of Cannon Tubes*. Here's what changes:

**Item 1, Para M-3.b, Page M-2 becomes:**

*b. Frequency of Inspection*

1) M225 cannon. In addition to Frequency of Inspection criteria found in Para 2-3b, arrange for Direct Support to borescope and pullover gage the cannon tube after every additional 1,000 rounds once 10,000 rounds have been fired or when the bore diameter equals or exceeds 2.402 inches. Have DS borescope and pullover gage the tube after every additional 500 rounds once the bore diameter equals or exceeds 2.411 inches.

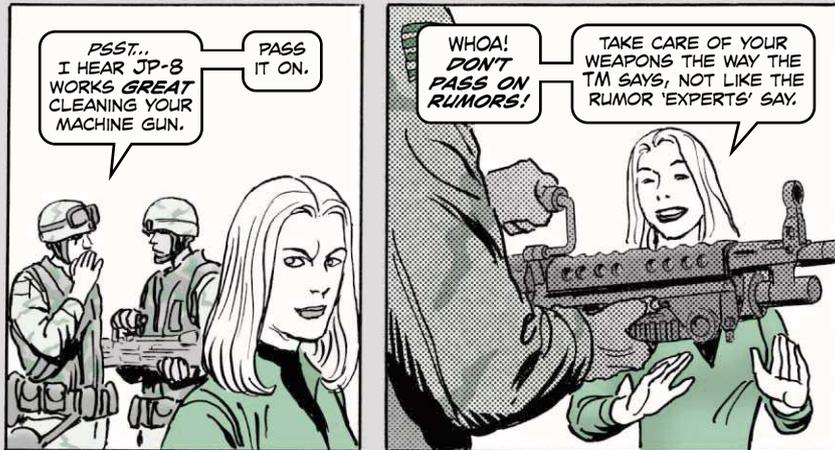
Borescope the M225 cannon tube every 100 rounds when firing subcaliber training rounds. The cannon tube should be inspected following three successive short rounds. Ensure that the correct number of charges and correct firing tables were used.

**Item 2, Para M-6.c, Page M-3** changes to the same as M-3.b(1) and (2). Pullover readings are to be taken in accordance with Para M-6.e.

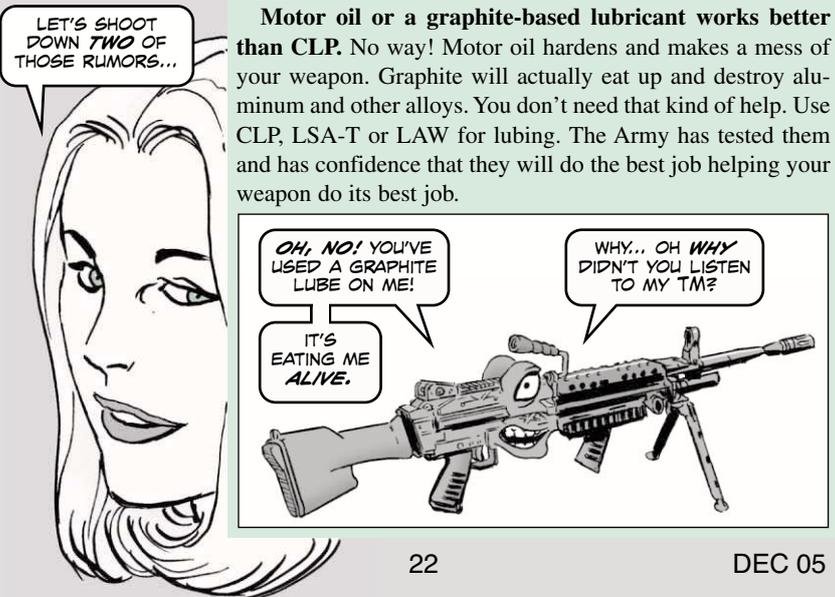
**There are several other changes to TM 9-1000-202-14 that have to do with Direct Support's borescoping and pullover procedures.** Your support can get a copy of them by contacting their local TACOM logistics assistance representative or TACOM at DSN 793-6357/(309) 782-6357 or email:

[ploenh@ria.army.mil](mailto:ploenh@ria.army.mil)

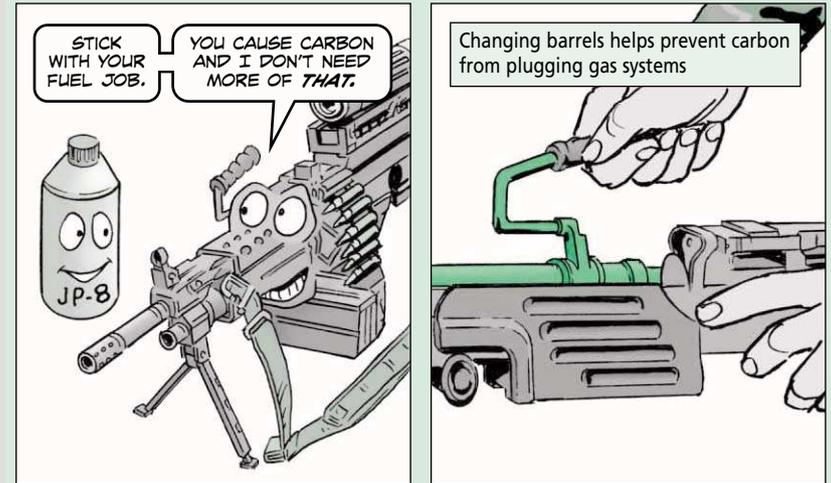
# SHOOTING DOWN RUMORS



**R**umors about better ways to take care of your rifle, pistol or machine gun just don't seem to want to die. PS still hears reports of soldiers using lubricants and cleaners on their weapons that they've heard are better than what the operator TMs prescribe.



**JP-8 does a great job cleaning off carbon.** Not really. Any JP-8 remaining on the weapon will actually cause worse carbon buildup—and it's difficult to get off all JP-8. The best way to prevent carbon buildup in gas systems on machine guns is to change barrels when you're supposed to. If you keep firing and firing the same barrel, carbon will soon plug up the gas system.



CLP and your cleaning tools should usually get rid of carbon. Of course, don't use CLP on machine gun gas systems. Those you clean with the scraper. Lube in the gas system causes more carbon.

If you can't get off all carbon, your armorer can use cleaning compound solvent, NSN 6850-01-474-2319, for tough cleaning jobs. But remember the weapon must then be re-lubed. Solvent washes away lube.

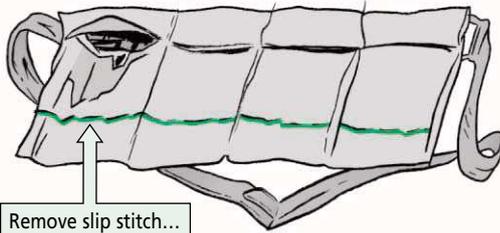


# BANDOLEER GOOD FOR CARRYING AMMO

RIFLEMEN, DON'T PITCH THE M8 BANDOLEER THAT CONTAINS A DOZEN 10-ROUND CLIPS FOR YOUR M16 RIFLE OR M4 CARBINE.

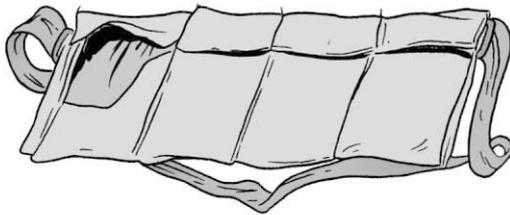
IT'S A GREAT WAY TO STORE M16/M4 MAGAZINES, TOO.

JUST REMOVE THE WHITE SLIP STITCHING AT THE BOTTOM OF THE BANDOLEER AND IT INSTANTLY BECOMES A CARRIER FOR EIGHT M16 MAGAZINES.



Remove slip stitch...

...to turn bandoleer into a carrier for 8 magazines



## No M9 Laser Grips

Putting a laser grip on your M9 pistol will get your weapon coded NMC. The laser grip is an unauthorized modification that will disqualify your pistol from action. No laser grips!

## M203A2 MWO Screw Wrong

When support does MWO 9-1010-221-30-4 to convert your M203/M203A1 grenade launchers to M203A2s, they need to order the machine screw in Table 3 with NSN 5305-00-417-5264. The NSN listed in the table is wrong.



# MFCM Kit Changed

The mini-FCM (flow cytometer) kit with the freeze-dried dye has a very short shelf life, which is why the Army is switching to a liquid dye. The liquid dye has a shelf life of two years with a predicted reliability of 98%.

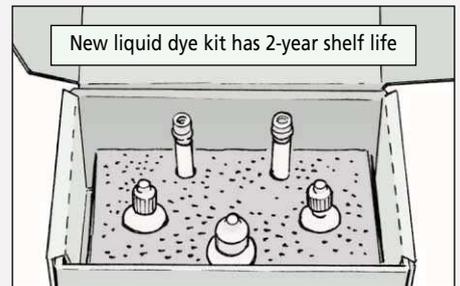
The part number for the new kit is PEM-MFCM-001B. Order it through your contractor support.

You must store the liquid dye kit at 32 to 39°F (0 to 4°C).

The liquid dye kit comes with a bottle of calibration beads, a bottle of pre-mixed dye, a bottle of bleach, and two conical tubes for the beads and bleach.

With the liquid dye kit, you no longer need to do the steps in Para 5 in WP 0027 00 in TM 3-6665-350-12&P, which had to do with preparing the old freeze-dried kit.

These changes will be included in the next change to the TM.



M17-Series Decon,  
M12A1 Decon...

# STOP MR. COLD!



YOU'LL GET  
NOWHERE MESSING  
WITH US NOW...

WE'RE  
PROTECTED!

It's almost impossible to drain out all water from the M17 and M12A1 decons no matter how careful you are. Then when the decons sit for weeks in the cold, that water freezes and damages stuff like the tanks and pumps. They are expensive to repair.

Shut the door to freezing like this:

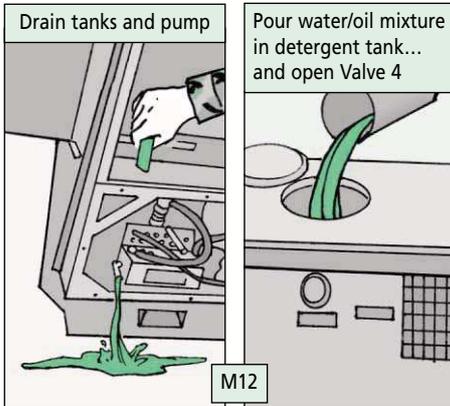
Freeze protection is easier with the M17 because you can just run antifreeze through it. Mix six gallons of antifreeze, NSN 6810-01-181-7121, to every four gallons of water and fill the M17's tank with the mixture. The procedure begins on Page 2-55 in TM 3-4230-228-10.

It's not so simple with the M12 because you can't use antifreeze. Antifreeze mixes with bleach and produces a toxic gas that can create enough pressure in the tank to rupture seals and valves.

The solution is general purpose lubricating oil (PL-S), NSN 9150-00-231-6689. Park the M12 on level ground and drain all the water you can from the main tank, prime detergent tank and pump. Then mix three pints of oil with three gallons of water. Pour the mixture into the detergent tank and open Valve 4. Run the pump 30 seconds, then drain the pump. Close Valve 4, but leave the pump drain valve open. Now the pump won't freeze.



Mix 6 gallons  
of antifreeze  
to every 4  
gallons of  
water



# A CHRISTMAS NOEL

IT WAS THE NIGHT  
BEFORE CHRISTMAS...  
NO CREATURE WAS  
STIRRING...  
ALL WERE ABED...



...WHILE VISIONS OF  
SUGAR PLUMS...  
TURNED INTO DREAD!

NOOOO!  
IT CAAAAN'T  
BEEEEE.....  
MEEEEE?

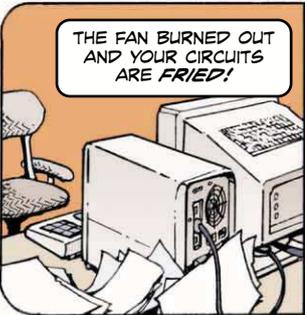


YES,  
YOU!  
HALF-  
MAST!

YOU LEFT YOUR PAPERS STACKED AGAINST YOUR COMPUTER'S VENTS



THE FAN BURNED OUT AND YOUR CIRCUITS ARE **FRIED!**



THEN YOU LEFT A PAPER CUP OF SODA NEXT TO YOUR KEYBOARD. IT WAS KNOCKED OVER AND YOUR KEYBOARD IS FULL OF **DIET COLA!**

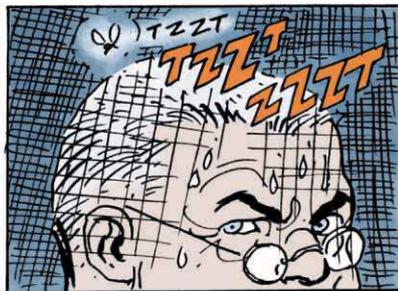


YOU'VE BEEN TOO LAX ON PM LATELY, HALF-MAST. TONIGHT **THREE MORE** SPECTERS WILL HAUNT YOUR DREAMS TO BRING YOU TO YOUR SENSES.

GIVE HEED TO THEIR WORDS OR YOUR WAKING DAYS WILL BE **WORSE** THAN THIS EVENING'S NIGHTMARES.



SPHEWIE WHAT A NIGHTMARE...



TZZT  
TZZT  
ZZZT



OUCH!

**SLAP**



I SHOULD TREATED THIS NETTING WITH PERMETHRIN.

ARRRST



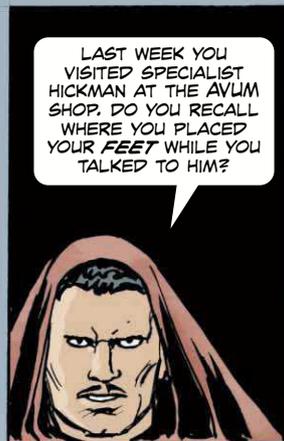
HALF-MAST...  
HALF-MAST!

HAAALF-MAAAST!



**SFC BLADE!**

YES, MSG HALF-MAST, I'M THE **FIRST** OF YOUR NIGHT SPECTERS!



LAST WEEK YOU VISITED SPECIALIST HICKMAN AT THE AVIUM SHOP. DO YOU RECALL WHERE YOU PLACED YOUR **FEET** WHILE YOU TALKED TO HIM?



HOW MANY TIMES DO WE TELL PILOTS **NOT** TO OVERSTUFF THEIR BAGS SO THEIR HELMETS WON'T BE DAMAGED? AND WHAT DO YOU DO?

**YOU STAND ON ONE!**



...WHAT'S GOTTEN INTO YOU? YOU KNOW THE DANGERS OF FOD! BUT WHAT DID YOU DO?

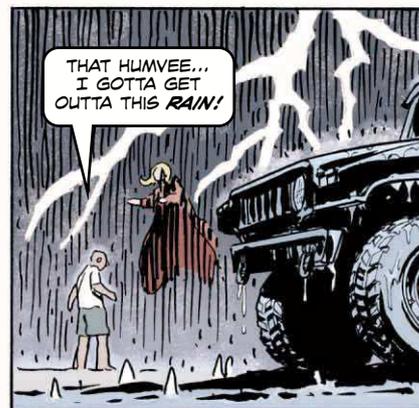
YOU DROPPED A PEN ON THE TARMAC AND **DIDN'T PICK IT UP!**



YOU'D BETTER **WAKE UP**, HALF-MAST! SOMEBODY'S GOING TO GET **HURT**.

IT'S STARTING TO **RAIN**. WHAT NOW?





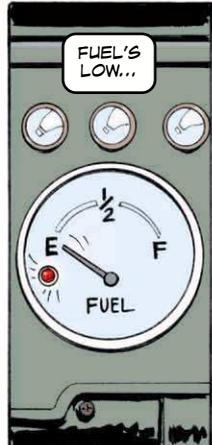


WH-WHERE ARE WE G-GOING, SUH-SPECTER?

YOU'LL FIND OUT, MEANWHILE, CHECK YOUR GAUGES.



I CAN'T SEE... BAD WIPERS.



FUEL'S LOW...



UH, OH.



COUGH' COUGH  
SPUTTER  
SPUT-SPUT  
SPEED



LOOK! LACK OF PM CAN CAUSE...



... THIS!



UGH!



TIME FOR US TO TAKE OFF, FELLOW SPECTERS.

YOU THINK HE'S LEARNED HIS LESSON?

I'M SURE HE HAS.



SO, HALF-MAST, YOU CAN'T SEE, YOU'RE OUT OF FUEL... WE'RE MILES FROM ANYWHERE.



AND DO YOU KNOW WHO DIDN'T PULL PM?



SOUNDS LIKE HALF-MAST IS HAVING A NIGHTMARE, BLADE.



SHOULD WE WAKE HIM UP, BONNIE?



YES, CONNIE... LET'S DO IT.



WHAT DID YOU TRY TO DO, WORK ALL NIGHT?

YOU LOOK EXHAUSTED!

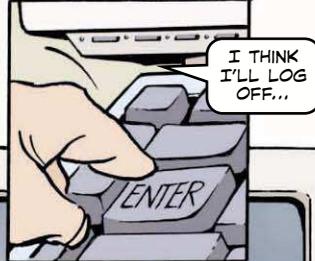
WE TOLD YOU, YOU NEEDED SLEEP.

HUH?

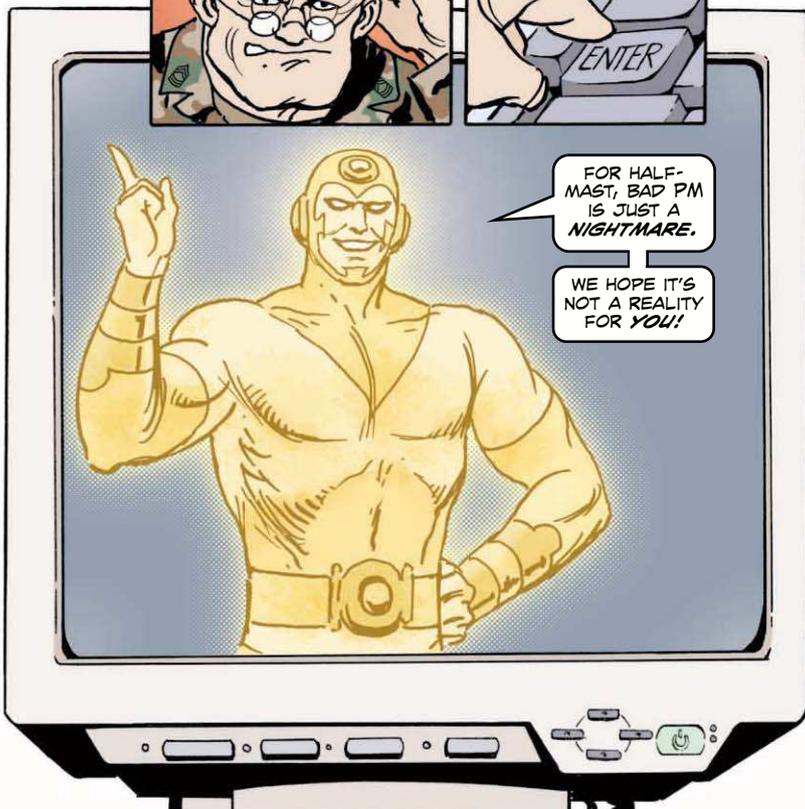


MUST'VE FALLEN ASLEEP.

UGH. WHAT NIGHTMARES!

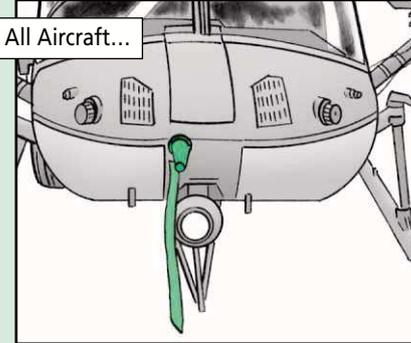


I THINK I'LL LOG OFF...



FOR HALF-MAST, BAD PM IS JUST A NIGHTMARE.

WE HOPE IT'S NOT A REALITY FOR YOU!



All Aircraft...



# COVER 'EM UP

NO MATTER WHERE YOU ARE OR WHAT YOU'RE DOING, KEEP THE PITOT TUBES COVERED!



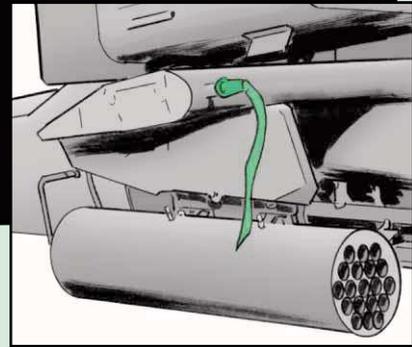
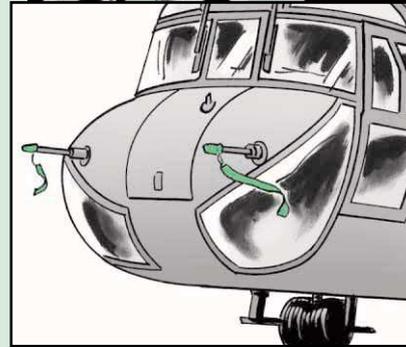
Crew chiefs, in cold weather, you can't do your best if you're not covered up. The same goes for your bird's pitot tubes.

Mr. Freeze can hit your bird like a ton of bricks in the mountains of Afghanistan or in the Iraqi desert at night. Always cover the tubes when cold weather heads your way.

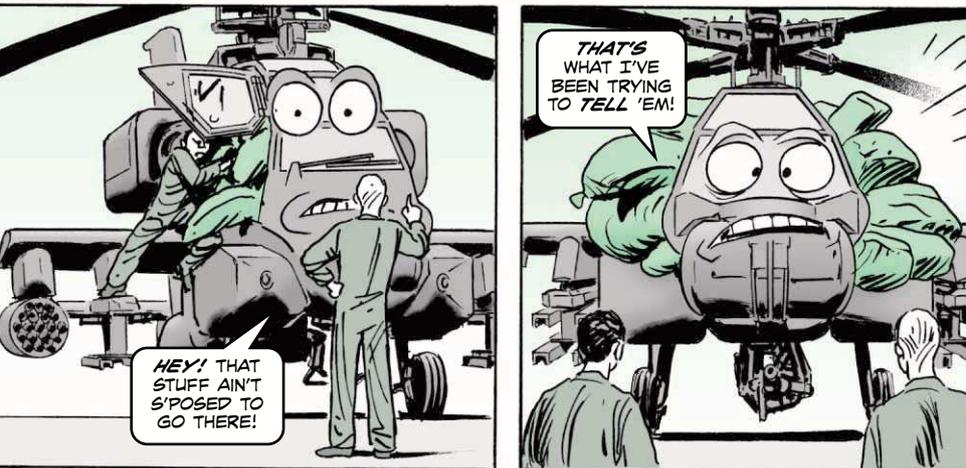
If you leave the cover off in cold weather, moisture will get inside the tubes and freeze. Ice in the tubes means your airspeed indicator will be thrown off.

Do you wanna' know how fast your Black Hawk, AH-64A/D, Kiowa Warrior and Chinook is flying? Then keep your pitot tubes covered!

When it's not cold, it's a good practice to leave the covers on 24/7 for protection when the bird sits on the flight line or in the hangar.



# FOR WANT OF STORAGE



**M**echanics, any and every place on your AH-64A/D is not for storage.

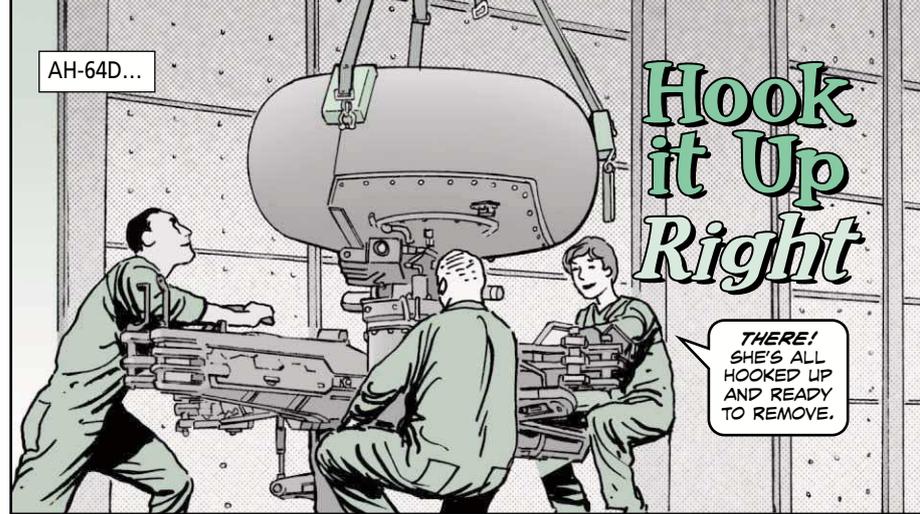
All the gear you carry on your bird goes in certain areas. Your -10 TM tells you where to store gear like flight bags and pubs bags.

Check out the TM and put your stuff where it's authorized, like on the bottom shelf of the left aft equipment storage bay and the survival storage bay next to it.

Don't put stuff in the catwalk area and leave it. Though it's tempting, keep the pubs bag and other items away from the cockpit ECS air intake. If you block it, it will overload and burn out the motor fan. And reduced evaporator air flow can knock out the ECS system.

A broken ECS means no air to cool you down in the summer or the desert heat and no heat to keep you warm in the winter.

Don't stow gear wherever you please. Stowage space on an AH-64 is limited to the left aft equipment stowage bay and the survival equipment stowage bay. They are accessed from either side of the aircraft. In addition, the D model has two flyaway stowage bays: the CPG crew station and the pilot crew station.



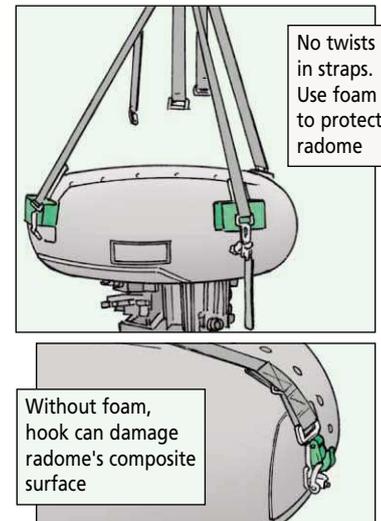
**D**uring the 250-hour inspection, mechanics, if you remove or install the Longbow mast-mounted assembly (MMA), use the sling correctly and follow the 1-1520-Longbow IETM.

One wrong move and the whole shebang will crash down on you. You could get hurt or killed and destroy an expensive piece of radar equipment. That's not good.

The radome has a delicate scanner inside and improper handling will damage it, especially if the sling is not hooked up correctly. Damage means the MMA goes to depot for repair.

### Here are some tips for proper sling use:

- Use some type of cushioning between the three straps and the metal hook to protect the MMA from scrapes, gouges or denting of the resin composite radome.
- Make sure all three sling pins are completely inserted and secured into the MMA slots.
- Make sure the sling straps are not twisted, but lie flat against the radome when they're attached.
- **Most important**, pay attention to and attach each sling hook to the sling pin and not to the "Remove Before Flight" streamer. That's a definite no-no!



# COUNTERMEASURE SET



YOU CAN NEVER DO ENOUGH PREVENTIVE MAINTENANCE ON THE ALQ-144A/C COUNTERMEASURE SET, ESPECIALLY IN THE HOT DESERT.



However, be careful how you do it. The set gets really hot and even more so in the desert. After a mission, it's a good idea to allow it to cool down before putting on the cover, NSN 5865-01-109-1800.

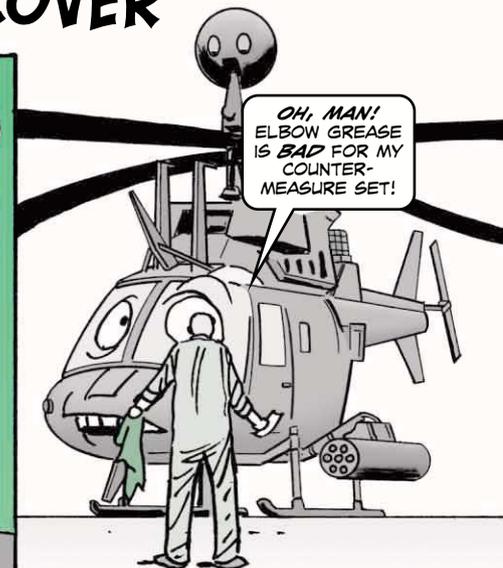
That's because covering the countermeasure set immediately after you shut down your bird can burn a hole through the cover. Then the ALQ-144A/C is left without protection.

In the desert, clean the mirrors regularly. Desert heat and the extreme heat generated by the countermeasure set itself will bake on grit, sand and dirt that's hard to remove.

If you break a mirror pane trying to clean baked-on crud, remember it's \$36 to replace each one.

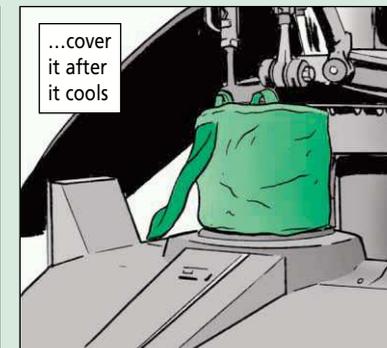
Also, when you're working topside on your bird, be careful not to kick the countermeasure set or drop tools on it. That spells curtains for the set and it has to go to AVIM or depot for repair.

# TOO HOT TO COVER

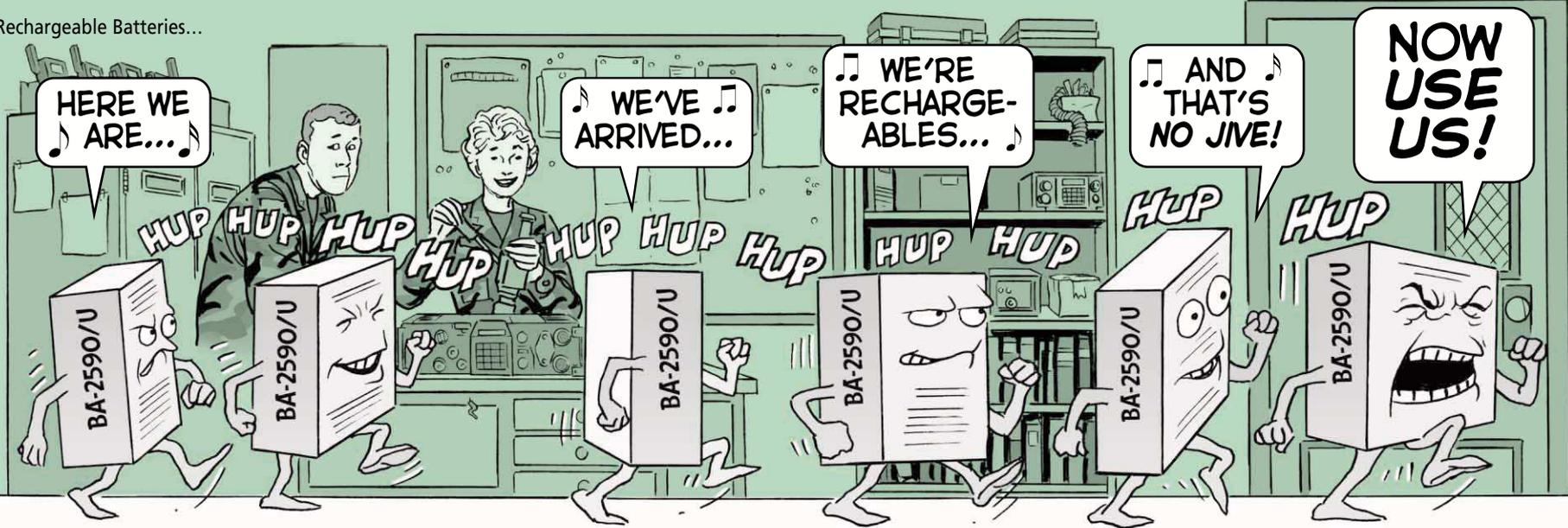


If you have a cracked mirror pane or a broken countermeasure set, make sure you fill out DA Form 2308-33-1 completely and turn it in with the set. An incomplete form or no form turned in at all means that AVIM cannot track the set's repairs. So they'll end up repairing everything on the unit's dime.

Bottom line: Be careful when working around the set. Before each takeoff and after each landing, clean the mirrors like it says in Chap 4 of TM 11-5865-200-12. And keep it covered when the bird is parked.







The good reviews are pouring in: rechargeable batteries work and work well! If your unit has yet to make the switch to rechargeables, now is the time to do so.

### Chargers

HERE ARE THE RECHARGEABLE BATTERY NSNs, THE NSNs FOR THE CHARGERS NEEDED TO RECHARGE THEM...

...THE NSNs FOR THE ADAPTERS YOU NEED ON THE CHARGERS...

...AND SOME NSNs FOR OTHER STUFF YOU MAY NEED TO GET THE MOST OUT OF THE BATTERIES.

### Batteries

Rechargeable Battery	NSN 6140-01-	End Item Example	Non-chargeable Equivalent
BB-2590/U	490-4316	SINGGARS, M22	BA-5590
BB-390B/U	490-4317	SINGGARS, M22, Javelin	BA-5590
BB-388A/U	490-4313	AN/PRC-126	BA-5588
BB-516A/U	419-8191	MELIOS, AN/PVS-6	None
BB-503A/U	419-8193	Dragon Thermal Sight	None
BB-2847A/U	493-8092	TWS, AN/PAS-13	BA-5347
BB-557/U	071-5070	REMBASS	BA-5557
BB-2600A/U	490-4311	HTU	BA-5600
BB-2800/U	490-5372	PLGR, CAM	BA-5800

You can also get a lithium rechargeable battery, NSN 6140-01-487-1153, for use in the AN/PRC-148, MBITR, hand-held squad radio.

OF COURSE, RECHARGEABLE BATTERIES NEED A WAY TO GET RECHARGED.

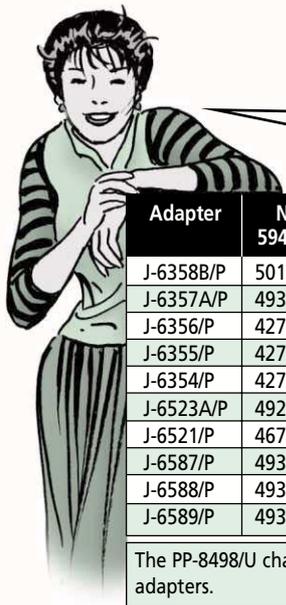
TO DO THAT JOB ORDER THESE CHARGERS...

Charger	Description	NSN 6130-01-
PP-8498/U	Portable charger	495-2839
PP-8481B/U	Charger-on-the-Move	527-2726

PP-8498/U is the latest and greatest charger. It will hold eight batteries, charging two at a time before moving on to the next two. It will recharge every kind of rechargeable battery listed here.

The PP-8498/U, PP-8481A/U and the PP-8481B/U are the only approved chargers that can charge the BB-2590/U. The PP-8444A/U will not do the job, but can still charge most battery types.

The Charger-on-the-Move, PP-8481A/U, has been upgraded to charge more BB-2590s faster and provide more expandability. The PP-8481B/U comes fully loaded with AC/DC cables and two universal adapters to hold and charge BB-2590, BB-390, BB-516, BB-388, BB-2800, BB-2847 and MBITR batteries.



## Adapters

TO MAKE THE BATTERY CHARGERS DO THEIR CHARGING JOB, YOU'LL NEED ADAPTERS THAT INTERFACE BETWEEN THE CHARGER AND THE BATTERY IT'S CHARGING.

HERE ARE THE ADAPTERS AND THE BATTERIES THAT USE THEM...

Adapter	NSN	Battery
	5940-01-	
J-6358B/P	501-3312	BB-390B/U, BB-2590/U
J-6357A/P	493-6388	BB-388A/U
J-6356/P	427-9183	BB-516A/U
J-6355/P	427-9247	BB-503A/U
J-6354/P	427-9278	BB-2847A/U
J-6523A/P	492-7238	BB-557/U
J-6521/P	467-8813	BB-2600A/U
J-6587/P	493-6750	BB-2800/U
J-6588/P	493-6751	MBITR (only 8498)
J-6589/P	493-7622	AA (only 8498)

The PP-8498/U charger comes with four J-6358B/P adapters.



## Accessories

To use a charger powered by a vehicle's 24-volt NATO slave receptacle, order DC cable, NSN 5940-01-501-6714. To use this cable to power two PP-8444 chargers, order an add-on cable, NSN 5995-01-491-8634. Or to use the cable to power two PP-8498 chargers, order an add-on cable, NSN 5995-01-505-7883.

For the BB-390 battery, you will also need the self-discharge cap, NSN 6130-01-490-4310.

If you're using the new Charger-on-the-Move, you can order a bulk adapter with NSN 5940-01-494-7116 that will hold four BB-2590s.

IF YOU NEED MORE INFO ON RECHARGEABLES, THEIR CHARGERS AND THEIR ADAPTERS, CONTACT THE ARMY'S RECHARGEABLE BATTERY GURU, AT DSN 992-4948 OR (732) 532-4948.

OR EMAIL HIM AT:  
[Donald.Brockel@us.army.mil](mailto:Donald.Brockel@us.army.mil)

AND STAY CURRENT ON ALL THE RECHARGEABLE BATTERY STUFF BY VISITING THIS WEBSITE OFTEN:  
[www.monmouth.army.mil/cecom/lrc/lrca/power/rechargebat.htm](http://www.monmouth.army.mil/cecom/lrc/lrca/power/rechargebat.htm)



150-KW  
Generators...

# Go Figure



EQUIPMENT PARTS MANUALS ARE THE ENCYCLOPEDIAS OF REPAIR PART KNOWLEDGE THAT LEAD YOU DOWN THE RIGHT PATH TO PART RESUPPLY. HOWEVER, SOMETIMES THE PATH DEAD-ENDS.

THAT'S THE CASE WITH TM 9-6115-668-23P, THE PARTS MANUAL FOR THE DIESEL 150-KW GENERATOR SET.



TM 9-6115-668-23P

FIGURE 119 SHOWS YOU THE BASE FRAME ASSEMBLY AND REFERS YOU TO FIGS 128, 129, 130 AND 131 FOR MORE INFO. BUT THERE'S A SLIGHT PROBLEM... THOSE FIGURES DON'T EXIST!

YOU'LL WEAR YOUR FINGERS TO THE BONE TURNING PAGES OR TAPPING COMPUTER KEYS, BUT YOU WON'T FIND THOSE FOUR FIGURES.



NOT TO WORRY, THOUGH. WE'RE DEAD-END BUSTERS!

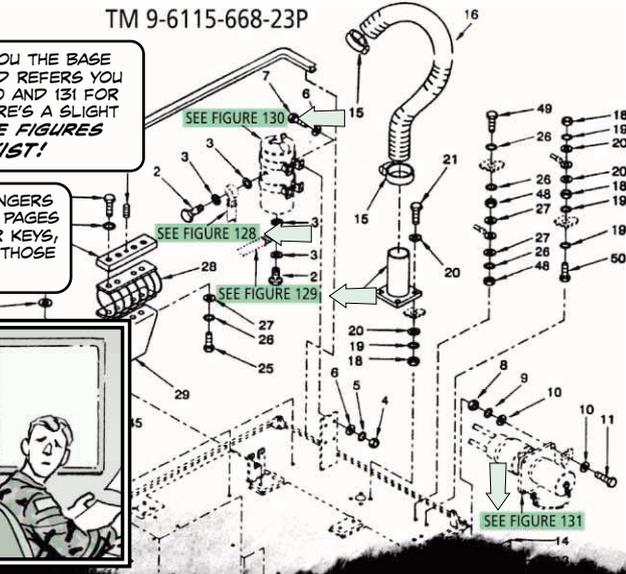
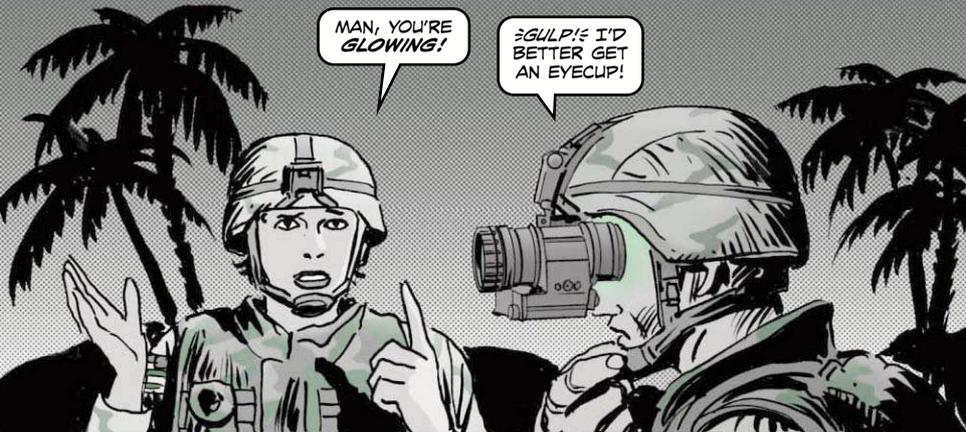


Figure 119. Base Frame Assembly, 150 KW Sheet 1 of 4

Figure 128 is for a nonmetallic hose assembly for the oil filter. Order it with NSN 4720-12-323-8768. Figure 129 is for a similar assembly that's just a bit longer. Order it with NSN 4720-12-323-8769. Figure 130 is supposed to be the subcurrent filter assembly, but you'll find that info as Figure 120. Figure 131 is supposed to be the slave receptacle assembly, but that's really Figure 121.

# IS THE EYECUP IMPORTANT?



Dear Editor,

I have inspected many units which use the AN/PVS-14 monocular night vision device (MNVD). I have been surprised at how many of these MNVDs don't have an eyecup. I have been told by users that they don't use the eyecup because it is uncomfortable or doesn't fit right.

Isn't this a safety issue? Doesn't the absence of an eyecup give the face a green glow that makes the head an inviting target?

SFC (Ret) D A. J

Ft Drum, NY

*(Editor's note: You may be retired, Sergeant Jones, but your safety awareness is still on active duty. The eyecup is an absolute must have on the AN/PVS-14 and all other night vision devices (like the AN/PVS-7's). Without the eyecup, your face will light up with a green glow like a tree at Christmas. But the gift you may get is not one you will like!*

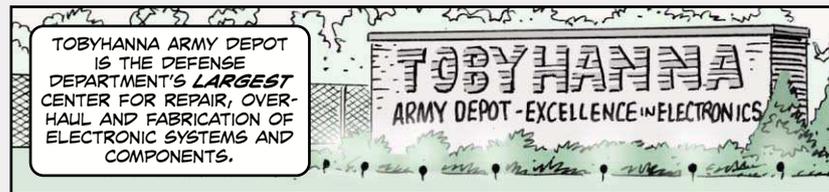
Page 2-38 of TM 11-5855-306-10, the operator's manual for the AN/PVS-14, says, "The eyecup must seal around your eye and prevent the green glow from escaping."

If the eyecup is uncomfortable or doesn't fit right, the reasons are noted in the operator's manual and are correctable. Correct them! Don't abandon the use of the eyecup.)

Eyecups are a must on night vision devices!

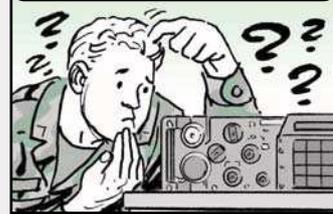


# Just Ask Toby



IF YOU HAVE A **QUESTION** ABOUT A PIECE OF ELECTRONIC EQUIPMENT OR AN ELECTRONIC SYSTEM, CHANCES ARE GOOD THAT SOMEBODY AT TOBYHANNA WILL KNOW THE ANSWER.

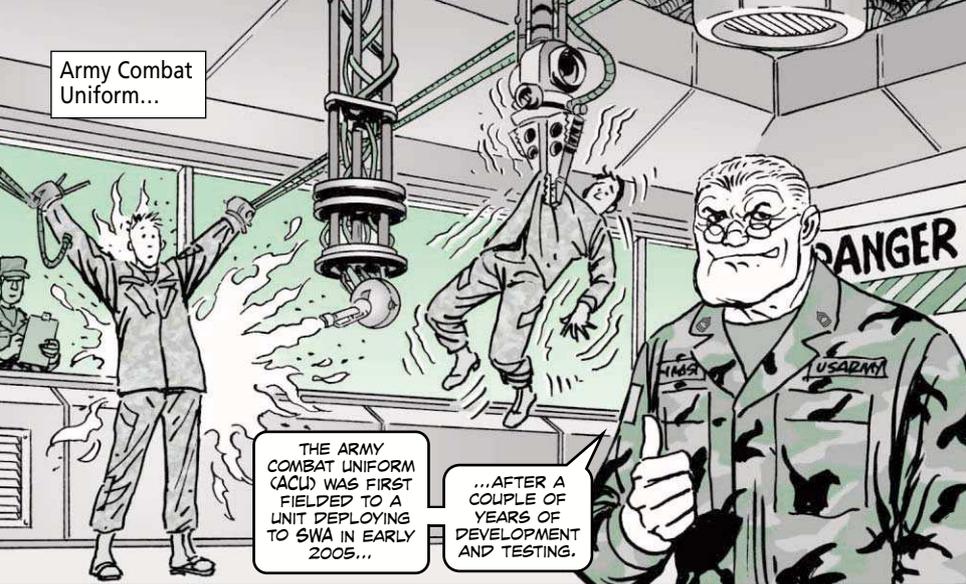
TO TAP INTO THAT KNOWLEDGE, TOBYHANNA HAS ESTABLISHED A HELPLINE. YOU CAN REACH THE HELPLINE BY CALLING DSN 795-8629 (TOBY) OR (877) 275-8629 (ASK-TOBY). OR EMAIL YOUR QUESTION TO: [ASK-Toby@Tobyhanna.Army.Mil](mailto:ASK-Toby@Tobyhanna.Army.Mil)



DURING NORMAL BUSINESS HOURS, 0730 TO 1600 ET, SOMEONE WILL ANSWER THE HELPLINE. DURING OFF-DUTY HOURS, LEAVE A MESSAGE ON VOICE MAIL AND YOU'LL BE CALLED BACK THE NEXT BUSINESS DAY.

IN CASE OF AN EMERGENCY DURING OFF-DUTY HOURS, THE VOICE MAIL WILL INSTRUCT YOU TO CONTACT TOBYHANNA'S SECURITY DIVISION FOR IMMEDIATE ASSISTANCE.

Army Combat Uniform...



## NEW, DIFFERENT, FLEXIBLE

What all warfighters will be wearing by May 2007, the ACU benefits from multiple improvements made as a result of field testing in the war zone, testing that continues even now.

The basic ACU consists of a jacket, trousers, patrol cap, moisture-wicking T-shirt and the recently adopted temperate and hot weather combat boots.

The ACU uses the same fabric as the desert combat uniform and the enhanced hot weather battle dress uniform. The fabric has three colors in the digitized pattern of urban gray, foliage green and desert sand.

The latest improvements include a new heat sealing process that reduces raveling, better stitching for the hook-and-loop fasteners and a heavier waist draw cord. Modifications were also made to the trouser pattern to reinforce the crotch against splitting.

The ACU has an estimated six-month wear life. Replacement uniforms for those ACUs issued as part of unit fielding are available in-theater through the Army Direct Order program and through Direct Exchange requisitions for battle losses and shortages from initial fielding.

Only deployed units are authorized to order these replacement uniforms. Contact the PEO Soldier Fielding Coordinator ([acu.questions@belvoir.army.mil](mailto:acu.questions@belvoir.army.mil)) to get authorization and ordering instructions before submitting a UIC and DODAAC to the Defense Logistics Agency and Coalition Forces Land Component Command.

Infrared (IR) American flag and permanent IR shoulder squares to provide night time identification

Tilted chest pockets with hook-and-pile closure, optimized for use with the front opening of the Interceptor body armor's outer tactical vest (OTV)

Elbow pouch with hook-and-pile closure for internal elbow pad inserts

Zippered front closure, reinforced with hook-and-pile which provides a smooth surface when worn with OTV

Knee pouch with hook-and-pile closure for internal knee pad inserts

Leg cuff with front closure tie, allowing more comfortable closure on the outside of the boot collar

Moisture-wicking tan T-shirt

Mandarin collar design

Hook-and-pile fasteners for rank insignia

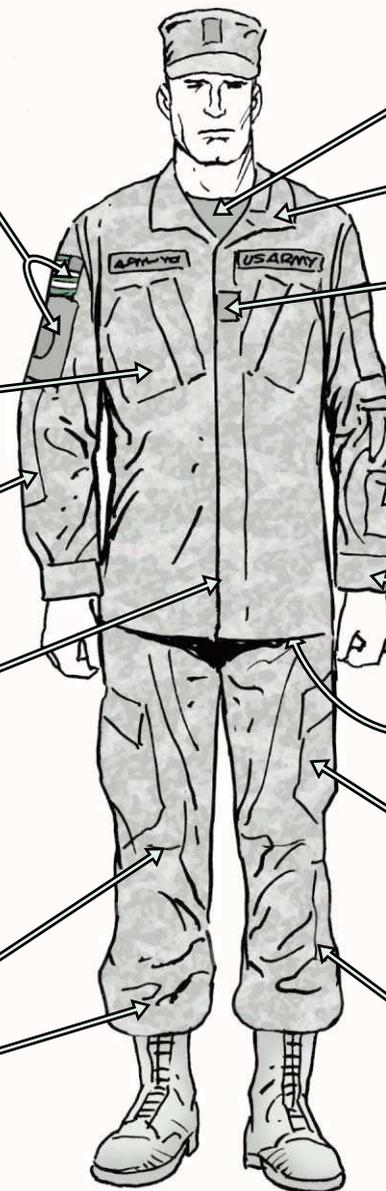
Three-slot pen pocket for easy access and use with OTV

Hook-and-pile sleeve cuff closures which provide positive closure for all sizes

Elastic drawstring for positive closure during movement

Forward-tilted cargo pockets for easy access whether sitting, kneeling, or standing.

Bellied calf storage pockets with hook-and-pile closure on the left and right leg



## Care, Laundering Info

- Remove all patches from the coat and all items from pockets.
- Close all hook-and-loop fasteners.
- Turn the jacket and trousers inside out.
- Machine wash in cold water on the permanent press cycle, or hand wash using a mild detergent that does not advertise bleach, whiteners or brighteners on the label.



- DO NOT dry clean, starch, use chlorine bleach, or have the ACU commercially pressed. All will cause permanent damage.



- DO NOT apply heat or a hot iron to any hook-and-loop fastener. That will cause permanent damage.

- Rinse completely, but do not wring or twist.

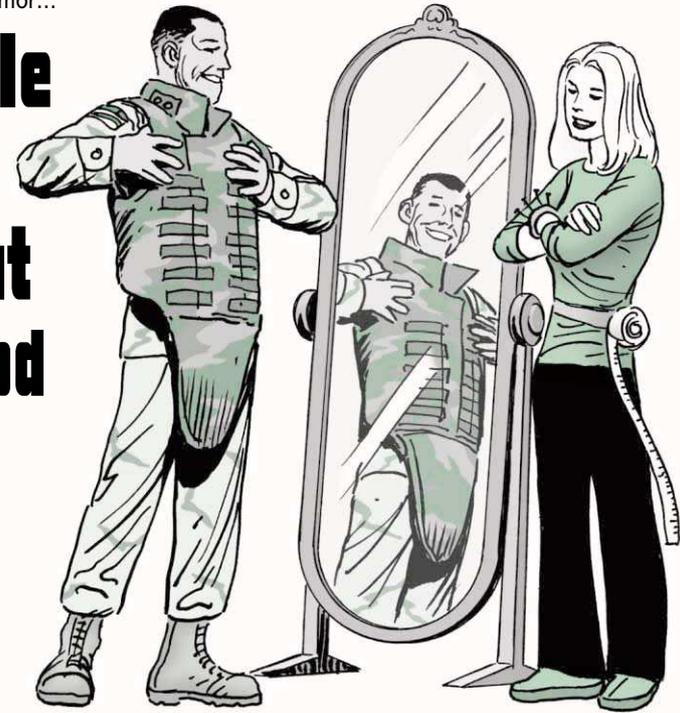


- Hang dry or machine dry on low to medium setting only (between 140-160°F).



## Interceptor Body Armor...

# A Little Bit About a Good Fit



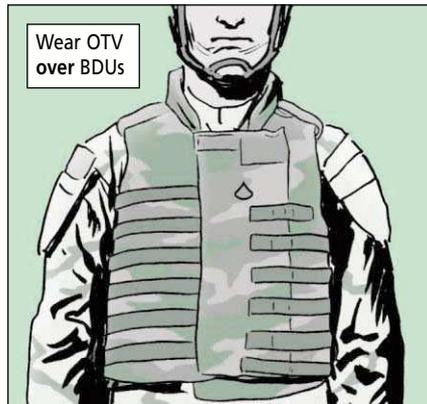
When it comes to choosing your interceptor body armor's outer tactical vest (OTV), take the time and trouble to get the right size. The extra effort's worth it. A good fit not only provides comfort but also gives your torso maximum protection.

The OTV comes in eight sizes, partly based on your chest measurement. That's the measurement around your bare chest at the fullest part.

USE THIS CHART AS A STARTING POINT FOR GETTING A GOOD FIT...

Outer tactical vest size	Chest measurement in inches
X-small	29-33
Small	33-37
Medium	37-41
Large	41-45
X-large	45-49
XX-large	49-53
XXX-large	53-57
XXXX-large	57-61

Keep in mind, the chart's **just a starting point**. Why's that? Because the right size for you depends not only on your chest measurement but also on what you wear underneath the OTV. If you go strictly by the chart, the vest might fit too tight. You see, the OTV is designed to be worn over your BDUs. But if you're carrying anything else under your vest—extra gear or pockets stuffed with items—you may need a larger size than what the chart indicates.



HERE ARE A FEW GUIDELINES TO MAKE SURE YOU GET A GOOD FIT...



- Put on any gear you usually wear under body armor. And put what you normally carry in your BDU pockets.
- Cold weather clothing adds bulk to your body. If your mission demands you wear cold weather gear, put it on when you size the OTV.



- Before you try on an OTV, insert all of its soft ballistic panels and its small arms protective insert (SAPI) plates.

Put in all panels and SAPI before you try on vest



...AND HERE ARE A FEW MORE GUIDELINES!



- Try on a few different OTVs for size.



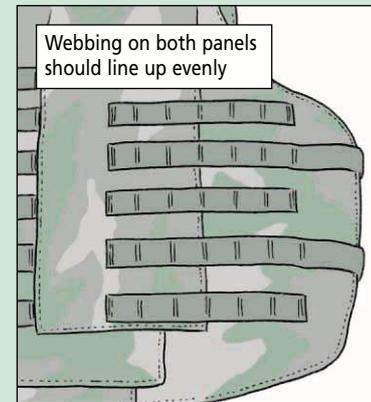
- Bring the right and left panels together. Close the left panel flap against the right panel so that the hook and loop fastener is secure.
- Tug on the side straps until the vest is snug—but not so tight it cramps your movements. If you feel discomfort, adjust the straps a bit. If that doesn't improve the fit, try on another size OTV.

- An OTV that fits well should have no gaps at the sides. The webbing on the left front panel should line up evenly with the webbing on the opposite panel. The OTV should feel snug but comfortable.

Pull on straps until vest is snug



Webbing on both panels should line up evenly



Containerized Shower...

# A WARM SHOWER IS JUST DUCKY



CONTAINERIZED SHOWERS GET PLENTY OF USE.



BEFORE LONG, LIME AND CRUD BUILD UP IN THE SHOWER HEADS. THEN THE FLOW OF WATER IS REDUCED TO A TRICKLE.

DO SOMETHING SIMPLE IN THE NAME OF GOOD HYGIENE: CLEAN OUT THE SHOWER HEAD ONCE IN A WHILE TO KEEP THE WATER FLOWING.



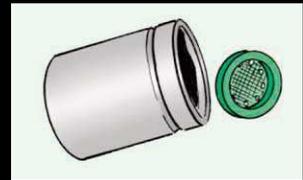
YOU'LL FEEL CLEANER, AND YOUR TENT MATES WILL THANK YOU. HERE'S HOW...

- Unscrew the nozzle (the lower part of the shower head) with your fingers.



- Look into the nozzle to see if the screen inside is clogged.
- If it's clogged, blow into the screen to clear it of debris.

- If that doesn't clear it, pop out the o-ring and screen. Rinse the screen until it's clean.
- Then put the screen and o-ring back into the nozzle.
- When you screw the nozzle back on, screw it on only hand tight. If you screw the nozzle on too tight, you'll flatten and deform the o-ring. That restricts water flow.



If you ever have to replace the entire shower head, order one with NSN 4510-01-316-7423. You'll need an 8-in adjustable wrench for the job. Wrap anti-seize tape, NSN 8030-00-889-3534, once around the threads on the flange before you screw on the shower head. That'll make the shower head a little easier to remove next time around.



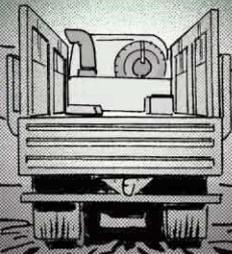
# A KEY TO FASTER RESUPPLY



SOLDIERS IN THE BIG SANDPIT KNOW THE CHALLENGE OF GETTING SUPPLIES ON TIME, IN THE RIGHT PLACE AND IN THE RIGHT QUANTITY.



IT'S EASY TO BLAME THE SUPPLY SYSTEM FOR DELAYS.



JUST REMEMBER THAT YOU'RE PART OF THE SYSTEM.



IN-BOUND CONTAINERS AND VEHICLES ARE ALL MARKED WITH RADIO FREQUENCY IDENTIFICATION (RFID) TRACKING TAGS.

THE TAGS IDENTIFY WHAT'S IN A SHIPMENT, WHERE IT IS AND ITS DESTINATION.



UNFORTUNATELY, ONCE UNITS RECEIVE THEIR SHIPMENT MANY ARE TREATING THE RFID TAGS LIKE TRASH.



RFIDS ARE REUSABLE, BUT THEY'RE IN SHORT SUPPLY BECAUSE THEY AREN'T BEING SENT BACK FROM THE SANDPIT.

MAKE SURE YOUR UNIT DOES ITS PART TO GET THE TAGS BACK IN THE SYSTEM.



## Prep RFIDs for Return

HERE'S WHAT TO DO...



- Remove the tag from the vehicle or container after it reaches its final destination.
- Turn the tag in to the first element of your chain of command that has a Standard Army Retail Supply System (SARSS) computer. They will use their SARSS ITV software to remove the tag's data from the In-Transit Visibility server. (If this step isn't possible, follow the next step.)
- Deactivate the RFID tag by reversing its battery.

IN IRAQ DEACTIVATED TAGS ARE SENT TO...



IF CIRCUMSTANCES REQUIRE, YOU CAN SEND DEACTIVATED RFID TAGS TO EITHER OF THESE STATESIDE ADDRESSES...

RF TAGS for RETROGRADE Theater Distribution Center (TDC), Kuwait.



### SW3100

Transportation Officer  
DDSP New Cumberland Facility  
Building Mission Door 113-134  
New Cumberland, PA 17070-5002

### SW3224

DEF DIST Depot San Joaquin  
REC WHSE 10  
25600 South Chrisman Road  
Tracy, CA 95376-5000

HELP THE SUPPLY SYSTEM GET YOU THE RIGHT STUFF AT THE RIGHT TIME... DEACTIVATE AND TURN IN ALL RFID TAGS.



# LOGNet: Peer-to-Peer Info Sharing



WE'RE GOING BACK TO BAGHDAD SOON!

I WONDER WHAT'S NEW?



CHECK OUT LOGNET.

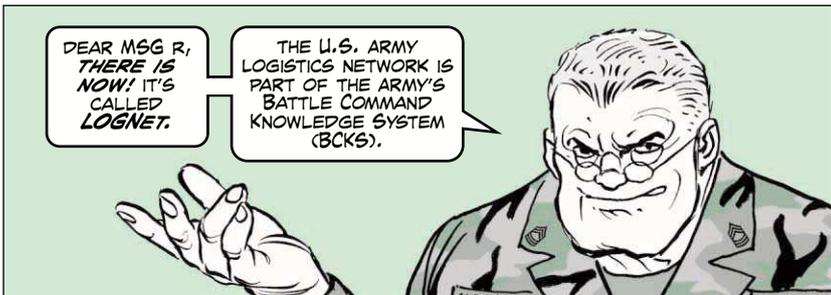
IT'S A NETWORK FOR SHARING IDEAS!

IT'S A GREAT PLACE TO GET KNOWLEDGE FROM THE FIELD!

LOGNET HELPS YOU AND YOUR FELLOW SOLDIERS LEARN TOGETHER!

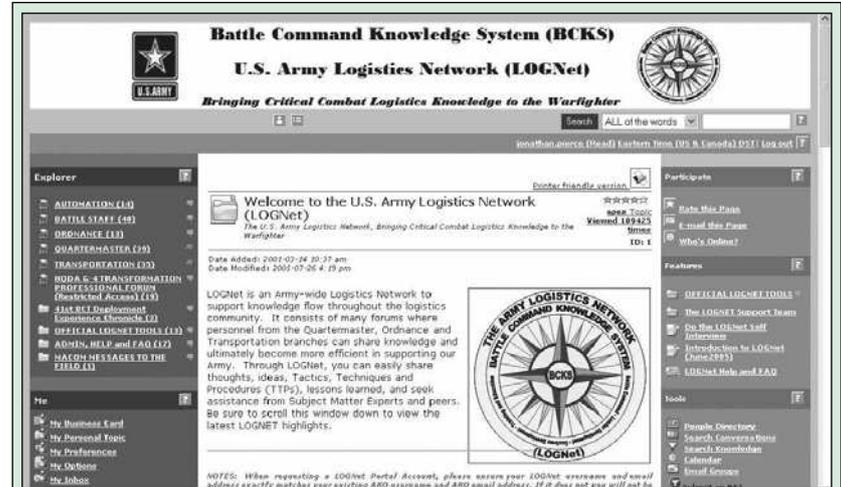


Dear Half-Mast,  
I'm a maintenance chief getting ready to deploy to Iraq. I've been there before, but things have probably changed. Is there somewhere I can meet other logistics professionals and subject matter experts (SMEs) to get up-to-date information?  
  
Thanks,  
MSG R.



DEAR MSG R,  
**THERE IS NOW! IT'S CALLED LOGNET.**

THE U.S. ARMY LOGISTICS NETWORK IS PART OF THE ARMY'S BATTLE COMMAND KNOWLEDGE SYSTEM (BCKS).



A new professional forum for sharing experience and knowledge, LOGNet has just recently registered its 5,000th member. LOGNet consists of dedicated groups of soldiers and DA civilians with similar responsibilities who meet together online in specialized online communities.

Through LOGNet, users can easily share thoughts, ideas, Tactics, Techniques and Procedures (TTPs), and lessons learned, and seek assistance from experts and peers. Users can even submit a request for information to BCKS when the answer they are seeking cannot be found on LOGNet.

LOGNet is organized and moderated by dedicated community coordinators who work hard to get warfighters to share critical combat knowledge. By joining LOGNet and participating, you will not only help yourself and your profession, but you will also help the thousands of other warfighters deployed, or preparing to deploy, as part of OIF or OEF.

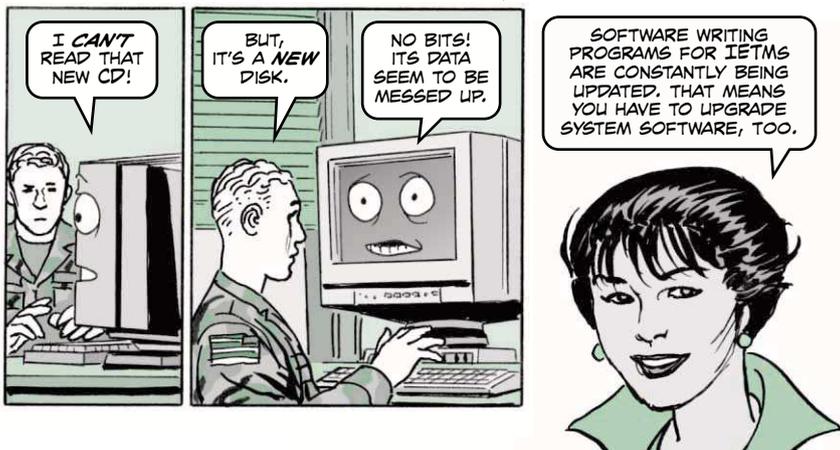
Ready to participate? Want to learn more? Join LOGNet, share what you know and everyone benefits! LOGNet can be the key to breaking the age-old cycle of constantly reinventing the wheel.

Login using your AKO username and password and request a LOGNet portal account to participate.

*Half-Mast*

visit BCKS LOGNet at:  
<https://lognet.bcks.army.mil>

# Update Software to Solve IETM Viewing Problems



Dear Editor,

Some electronic maintenance system (EMS) users have version conflicts when they try to view recent interactive electronic technical manuals (IETMs). Usually this happens because the current EMS software isn't installed on their maintenance support device (MSD).

So if you can't read your IETMs you may only need to upgrade your version of the EMS to match (or exceed) the version of the software the IETM was authored in. Please note that installation on some Army LANs requires administrator rights.

The latest version of the EMS software can be found on the IETM CD-ROM(s). The recommended method for upgrading the software is to:

- Un-install the EMS-2 software (not the IETM) that is currently installed on the machine.
- Install the EMS-2 software found on the CD-ROM(s) that accompanies the IETM you are attempting to view.

Each update is backwards-compatible and will view previously developed IETMs. The best rule of thumb is: "Always install the latest viewer you have."

If you have any problems updating your EMS software, please email:

[IETM/EMSSupport@tacom.army.mil](mailto:IETM/EMSSupport@tacom.army.mil)

Or, you can call DSN 786-7497 or COMM (586) 574-7497.

M.R. A  
TACOM

*Editor's note: Thanks. Your comments prove that even state-of-the-art equipment and software can be updated.*



## M88A1 Air Cleaner Parts

The numbers for Items 22 and 23 in Fig 21 of TM 9-2350-256-24P-1 are reversed. If you order Item 22, the rubber collar flange, you'll actually receive what's pictured as Item 23. And if you order Item 23, the air duct collar, you'll receive what's pictured as Item 22. Also, the CAGE and part number for Item 23 are both missing their first number. The correct CAGE is 19207. The part number is 10862222. Make a note until the TM can be updated.

## No Training with Old M2 Barrel Support

We told you in PS 627 (Feb 05) that because of a shortage in M2 machine gun barrel supports it is temporarily OK to use the old barrel support with rectangular cooling holes. But because the old support has larger cooling holes it's *not* OK to use it for training with the M19 BFA, M3 recoil amplifier, or MILES. The old barrel supports should be tagged NOT FOR USE WITH M3 AMPLIFIER, MILES OR BFA and you should make sure you have the new barrel support, NSN 1005-00-550-4091, for training. Questions? Contact TACOM at DSN 793-3786/(309) 782-3786 or email: [katie.asleson@us.army.mil](mailto:katie.asleson@us.army.mil)

## M1A1 Tank DSESTS Software

Have you had DSPS 32.1 software loaded on your Direct Support Electrical Systems Test Set (DSESTS) with a Combined Support Function Module (CSFM)? Without it, you won't be able to check the tank commander's panel (TCP), PN 12549797-3, on tanks that have had MWO 9-2350-264-50-12 applied. A faulty TCP won't alert the commander when the NBC system overheats or is clogged. Nor will it automatically shut down the NBC system to avoid a possible fire.

## M1A1 Tank Commander's Panels

If you need a new tank commander's panel (TCP) for your M1A1 tank or an upgraded tank commander's panel (UTCP) for your M1A1 AIM tank, be sure you order the latest versions. Requisitions for the older, obsolete versions will be rejected. The new TCP is NSN 6110-01-497-3343 (PN 12549797-3). The new UTCP is NSN 1290-01-511-9539 (PN 12473169). Pencil in these NSNs until TM 9-2350-264-24P-2 can be changed.

## AR 750-1 2005 Released

The 2003 version of AR 750-1, *Army Materiel Maintenance Policy*, was replaced on 15 Aug. The revision is available on the Army Publishing Directorate website:

[http://www.army.mil/usapa/epubs/750\\_Series\\_Collection\\_1.html](http://www.army.mil/usapa/epubs/750_Series_Collection_1.html)

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

**Would You Stake Your Life <sup>right now</sup> on  
the Condition of Your Equipment?**



WHAT  
THE  
HECK!?



MY RIFLE'S  
JAMMED! I'M  
DEFENSE-  
LESS.



IT JAMMED  
BECAUSE YOU  
PUT THAT M4  
BUTTSTOCK ON  
YOUR MIG  
RIFLE.

WHO GAVE YOU  
THAT BRIGHT  
IDEA!?

# UNAUTHORIZED MODIFICATIONS

**HURT YOUR WEAPON AND PUT  
YOU AND YOUR UNIT AT RISK.**