

Issue 754

PS

September
2015

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-754

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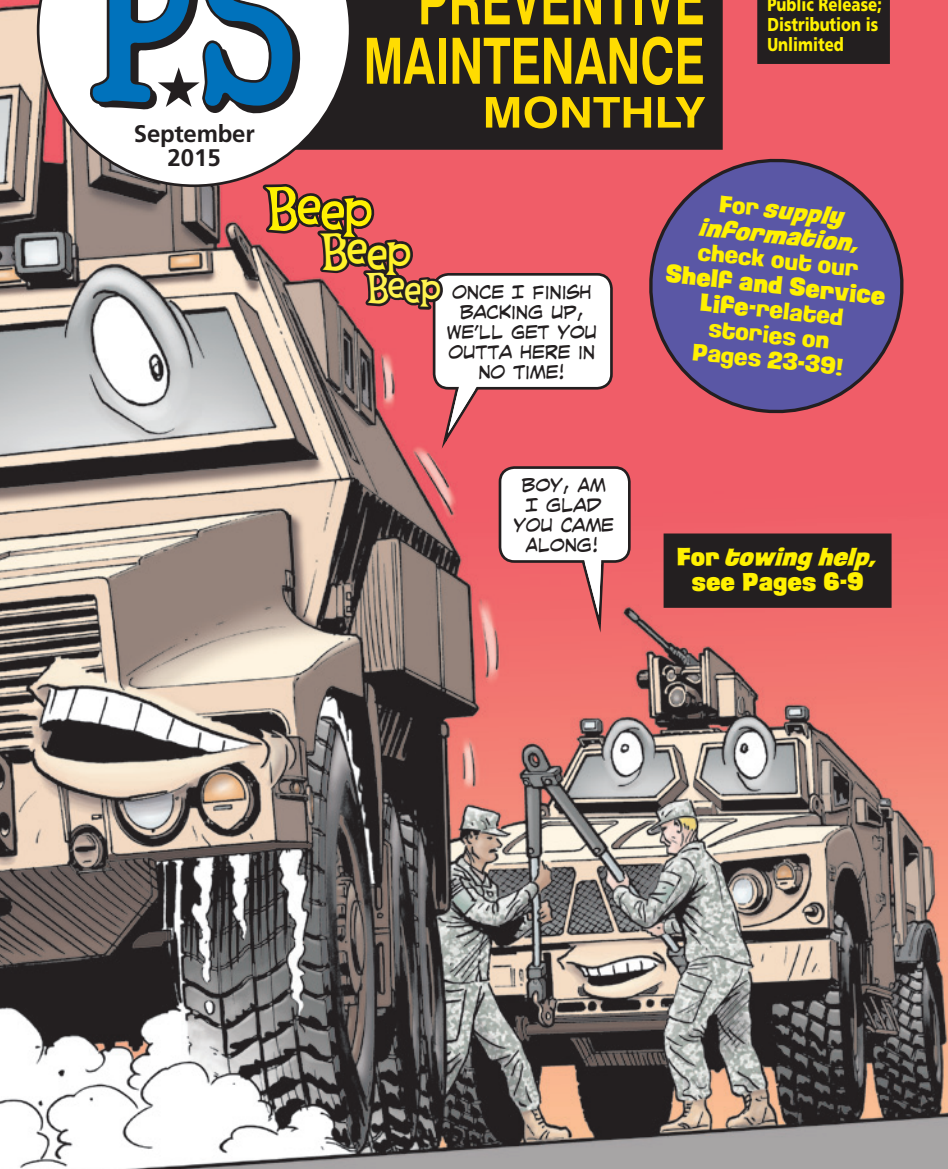
Beep
Beep
Beep

ONCE I FINISH
BACKING UP,
WE'LL GET YOU
OUTTA HERE IN
NO TIME!

BOY, AM
I GLAD
YOU CAME
ALONG!

*For supply
information,
check out our
Shelf and Service
Life-related
stories on
Pages 23-39!*

*For towing help,
see Pages 6-9*



**COMBAT VEHICLES**

DSESTS Turn-in Needed
Stryker Steering Wheel Crack Inspection
Tow Bar and Adapter NSNs

**TACTICAL VEHICLES**

FMTV Cab Ride Height Limit Switch Dust Boot
FMTV Air Tank Draining
MaxxPro MRAP Headlight Replacement

**CONSTRUCTION
VEHICLES**

M1231 VMMD Husky, Flat-tow Only
M9 ACE Roadwheel Damage Inspection
120M Grader Battery Disconnect Switch
120M Grader Tandem Oil Check

**AVIATION**

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Use ANVIS ASAM for Maintenance

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TB 43-PS-753, 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 authority responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders. The use of product or company names does not constitute endorsement of those products, services or companies by the U.S. Army. The use of non-DoD hyperlinks, along with their content, does not constitute endorsement by DoD or DA. Neither DoD nor DA exercises any editorial control over, and cannot vouch for, content on non-DoD websites.

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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
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Bldg. 3303
Redstone Arsenal, AL 35898

Or email:

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

Internet address:

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

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Administrative Assistant to the Secretary of the Army

1516602

WHERE THE
HECK IS IT IN
THE TM? CAN'T
FIND IT.

BUT ASKING SOMEBODY
ELSE WILL MAKE ME LOOK
DUMB. GUESS I'LL JUST
GIVE IT MY BEST SHOT.

JUST ASK ALREADY!



You don't know the answer. You're baffled. You pride yourself on being able to figure things out, but this one escapes you.

Of course it's not covered in the TM. Or if it is, you can't find it. And nobody has ever shown you how to do it.

You could ask somebody, but what would the other mechanics say? You've been here so long it'd make you sound like an idiot.

Maybe you could get the new Soldier to ask instead. But what if they all look to you for the answer? Or worse, what if everybody knows the answer but you?

Nope, no way you're asking that question. So you guess. But you guess wrong. And then a real maintenance nightmare begins, one far more embarrassing than simply asking a question up front.

As the original Murphy's Law goes: "If there are two or more ways to do something, and one of those ways can result in a catastrophe, then someone will do it."

Don't be that someone. Ignorance isn't bliss. But it's not stupidity, either. It's just lack of knowledge.

IF YOU'RE NOT
SURE, **ASK!**

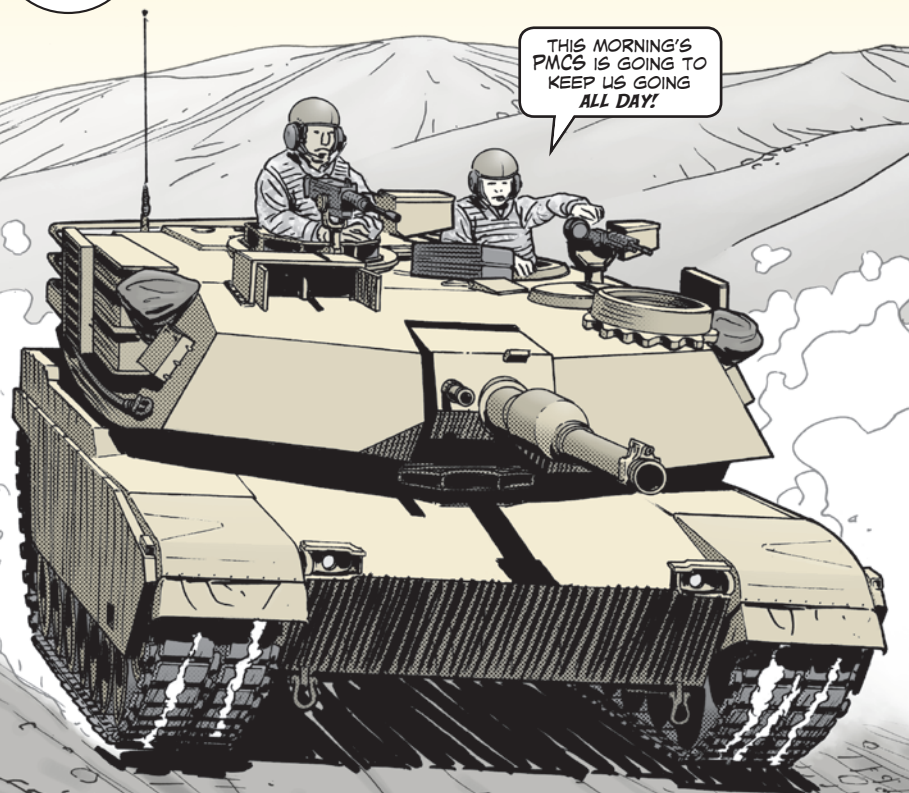
THOSE WHO
GUESS ARE
TAKING TOO
MANY RISKS.

SURE, YOU
MIGHT GET A
LITTLE FLAK
NOW, BUT IT'S
BETTER THAN
MAKING A
BIG MISTAKE
LATER.

AND ONCE YOU
START ASKING
QUESTIONS,
OTHERS WILL
ASK, TOO. IT'S
CONTAGIOUS—IN A
GOOD WAY. SO
ASK ALREADY!



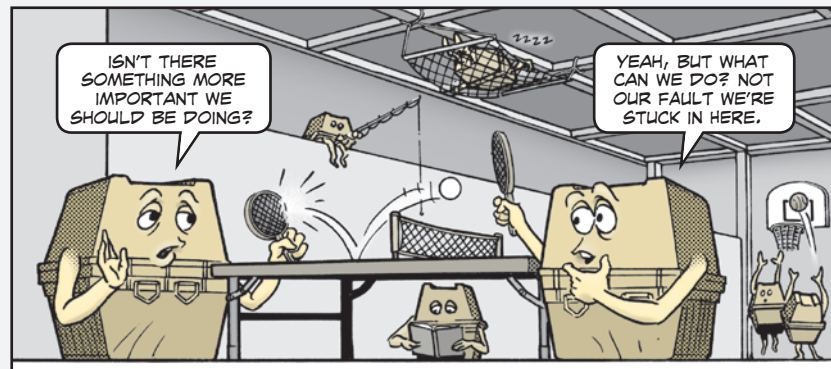
THIS MORNING'S
PMCS IS GOING TO
KEEP US GOING
ALL DAY!



- If you no longer have the DSESTS mission turn-in your DSESTS.
- Stryker steering cracks can crack you up!
- Tow bars and towing.

Test
Sets...

DSESTS Turn-Ins Needed ASAP!



UNITS ARE **SUPPOSED** TO TURN IN THEIR DIRECT SUPPORT ELECTRICAL SYSTEM TEST SETS (DSESTS) WHEN THEIR MISSION ENDS OR IS TRANSFERRED TO ANOTHER UNIT.

BUT TURN-INS DON'T ALWAYS HAPPEN.

THAT MEANS THE NEXT UNIT GIVEN THAT MISSION **CAN'T** DO ANY DSESTS TESTING.

DSESTS WAS FIELDIED TO PERFORM OFF-VEHICLE TESTING OF LINE REPLACEABLE UNITS (LRUs) AND SHOP REPLACEABLE UNITS (SRUs) FROM BRADLEYS AND M1-SERIES TANKS.

NEW DSESTS AREN'T BEING MADE, SO TURN-IN IS **VITAL**. THEY REPLENISH AND INCREASE THE NUMBER OF DSESTS IN THE SUPPLY SYSTEM.

A COMPLETE DSESTS COMES IN ABOUT 40 CASES, ALONG WITH MORE EQUIPMENT AND FIXTURES. IT CONSISTS OF...

- DSESTS, NSN 6625-01-120-0764, LIN T52849
- General purpose interface assembly (GPIA), NSN 5998-01-382-7282
- Operator interface unit (OIU), NSN 6625-01-225-8342
- DSESTS common resource (DCR), NSN 6625-01-443-2478, which includes the common function modules (CFMs), and combined support functions module (CSFM) system, NSN 6625-01-559-2662 or NSN 6625-01-569-3614
- M1 tank electronic support system, NSN 5598-01-392-2172
- Bradley A2 ODS legacy electrical test set, NSN 6625-01-234-8164
- M1 thermal imaging system (TIS) test set, NSN 4931-01-263-7972 (LIN T92250)
- M1A2 SEP electronic test set, NSN 6625-01-376-0470 (LIN T17404)
- Bradley TOW system test set, NSN 6625-01-442-7490 (FG 2578)
- Bradley A3 test set, NSN 6625-01-453-7394 (FG 256V)
- Common forward looking infrared radar (FLIR) TIS test set, NSN 6625-01-443-8390 (FG 2529)
- Wolverine test set, NSN 6625-01-474-5713
- Maintenance support device (MSD), (LIN T92889)
- DSESTS external power supply
- All test fixtures and holding fixtures

IF YOU HAVE ANY OF THIS EQUIPMENT, DO THE SELF-TESTS DESCRIBED IN THE 9-4931-586-SERIES TMS TO SEE IF THE EQUIPMENT IS SERVICEABLE.

ANY DSESTS EQUIPMENT THAT IS NOT LISTED ON YOUR UNIT'S PROPERTY BOOK OR IS NO LONGER REQUIRED SHOULD BE TURNED IN TO THE SUPPLY SYSTEM THROUGH YOUR PROPERTY BOOK OFFICER.

IT WILL BE SUBMITTED THROUGH THE AUTOMATED EXCESS RETURN PROCESS USING A DOCUMENT IDENTIFIER CODE OF FTE.

THIS APPLIES TO SERVICEABLE AS WELL AS UNSERVICEABLE EQUIPMENT.

AS EXCESS DSESTS EQUIPMENT IS TURNED IN, TACOM CAN REPAIR OR REISSUE IT TO THE UNITS IN NEED.

QUESTIONS? CONTACT ONE OF THE FOLLOWING TACOM POCs...

KEVIN CRAFT, DSESTS WEAPON SYSTEM MANAGER, DSN 786-8009, (586) 282-8009 OR EMAIL kevin.t.craft.civ@mail.mil

WAYNE DAVIDSON, DSESTS TEAM LEADER, DSN 786-7431, (586) 282-7431 OR EMAIL wayne.r.davidson.civ@mail.mil

MARIO NIETO, DSESTS TEAM SUPERVISOR, DSN 786-1097, (586) 282-1097 OR EMAIL mario.nieto1.civ@mail.mil

ALL RIGHT! WE'RE GETTING SHIPPED OUT!

FINALLY! SOMEBODY REALIZED WE'RE WAY **TOO VALUABLE** TO JUST BE SITTING AROUND ALL DAY.

Stryker...

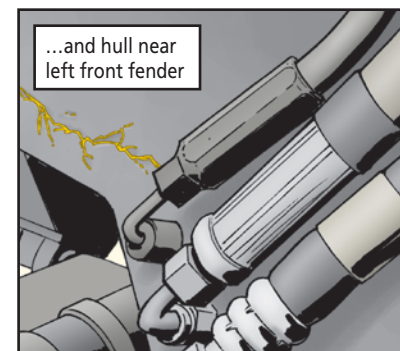
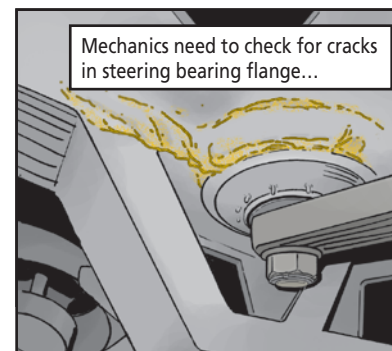
STEERING NOT ALL IT'S CRACKED UP TO BE?

WOW!

Crewmen, is your Stryker's steering wheel giving you a lot of "feedback"? Does the steering bind up or feel slack or loose?

If you're experiencing sloppy steering, tell your mechanic right away. He'll inspect for cracks in the steering bearing flange, as well as in the hull near the left front fender.

SORRY! MY STEERING AIN'T DOING SO GREAT!



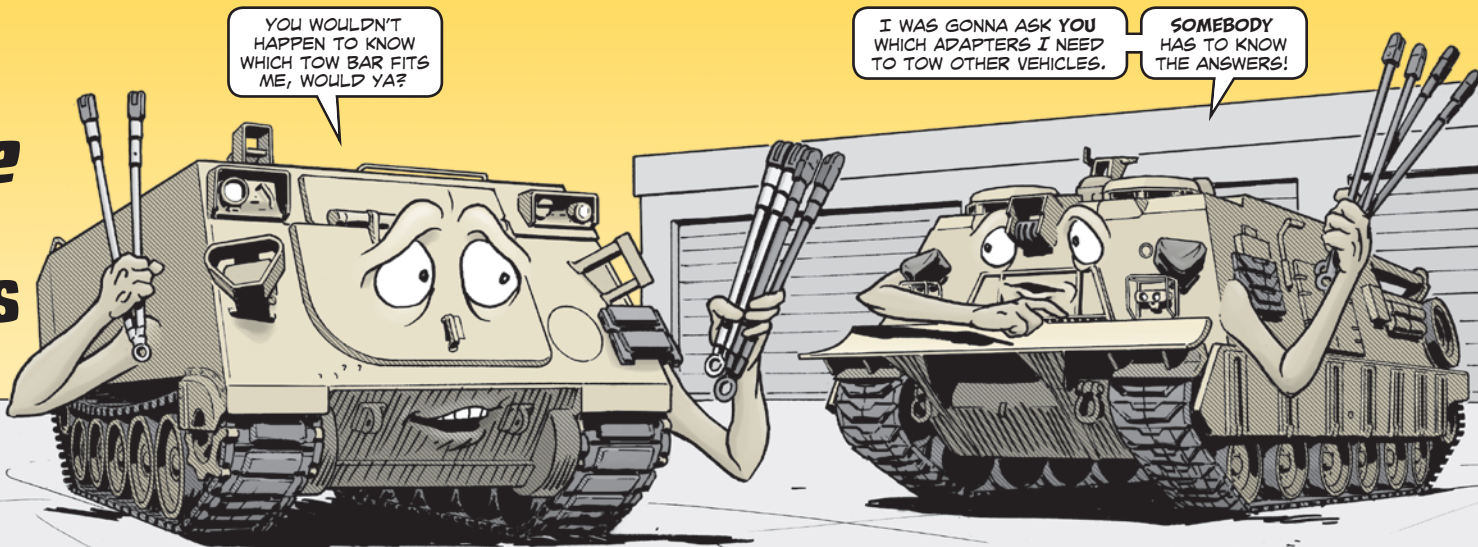
Mechanics, check out more details in TACOM Maintenance Action Message 15-015. You'll find it on the TACOM-Unique Logistics Support Applications (TULSA) website:

<https://tulsa.tacom.army.mil/Maintenance/message.cfm?id=MA15-015.html>

You'll need your CAC and first-time users must request access.

Questions? Contact Alexander McArthur, DSN 786-6726, (586)532-6726 or email: alexander.j.mcarthur.civ@mail.mil

Towing is No Chore with Right Bars and Adapters

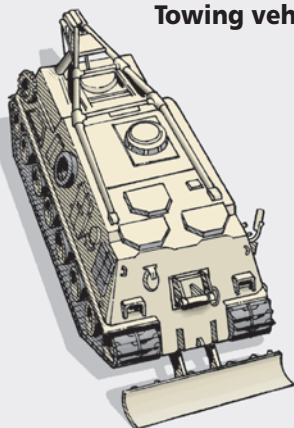


SOONER OR LATER YOU'RE GONNA NEED TO TOW ANOTHER RIG WITH YOUR VEHICLE AND YOU'LL WANT TO DO IT **SAFELY**.

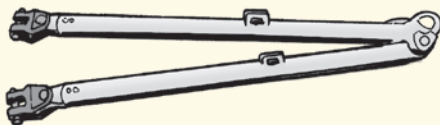
BUT IT CAN BE TOUGH TRYING TO FIGURE WHICH TOW BARS AND ADAPTERS TO USE IN RECOVERY OPERATIONS.

HERE'S THE WORD ON ARMY-APPROVED TOW BARS AND ADAPTERS...

Towing vehicle: M88A1 recovery vehicle



Tow bar: Heavy duty tow bar, NSN 4910-01-267-2912

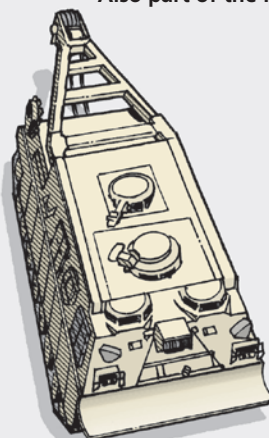


Adapters:

- 2.5-10-ton light duty, NSN 2540-00-863-3153
- 10-50-ton medium duty, NSN 5340-01-267-2908 (comes with tow bar)

Towing vehicle: M88A2 recovery vehicle.

Also part of the HEMTT additional authorization list (AAL).



Tow bar: Heavy duty tow bar, NSN 2540-01-434-8595



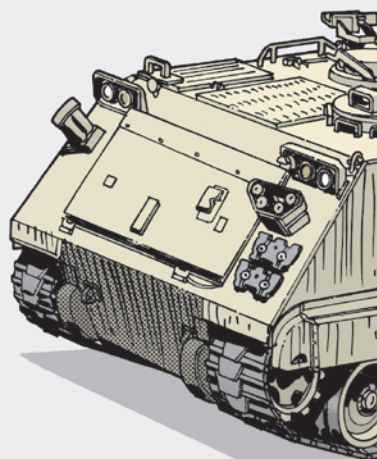
Adapters: (Not supplied with tow bar)

- 2.5-10-ton light duty, NSN 2540-00-863-3153
- 10-50-ton medium duty, NSN 5340-01-267-2908

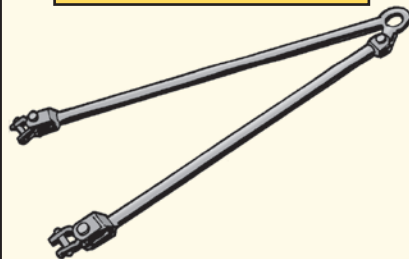
Note: The M88A1/A2 heavy duty tow bars do not have a working load limit, but do not exceed the weight of the M88A1/A2 (112,000 lbs/139,000 lbs), unless a brake vehicle is used.

PS MORE

Towing vehicle: M113 APC



Tow bar: NSN 2540-00-936-7801,
(capacity 68,000 lbs)



Adapters: (supplied with tow bar)

- Clevis, rod end, NSN 5340-01-051-3609
- Clevis, rod end, NSN 5340-01-046-4770

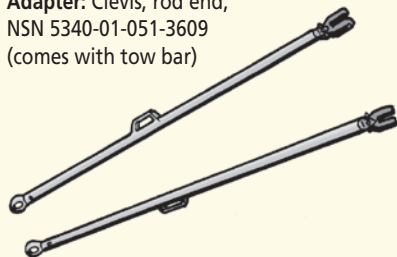
Towing vehicle: Stryker family of vehicles (FOV)

Strykers can be flat-towed using another Stryker or like vehicle, as long as the towing vehicle is **of equal or greater weight**.



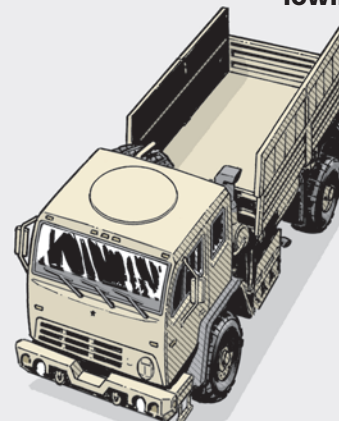
Tow bar: Stryker tow bar,
NSN 4910-01-632-4112
(capacity 50,000 lbs)

Adapter: Clevis, rod end,
NSN 5340-01-051-3609
(comes with tow bar)



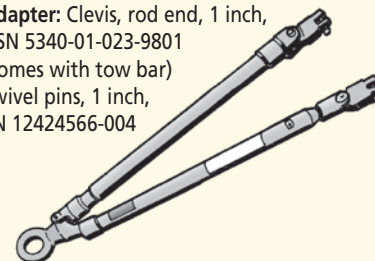
Caution: Use the Stryker tow bar **only** on the Stryker FOV. Using it on other vehicles will damage the tow bar and towed vehicle due to the towing angle.

Towing vehicle: MTV



Tow bar: Medium-duty tow bar,
NSN 4910-01-554-7296
(capacity 65,000 lbs)

Adapter: Clevis, rod end, 1 inch,
NSN 5340-01-023-9801
(comes with tow bar)
Swivel pins, 1 inch,
PN 12424566-004



Caution: Use this tow bar **only** in the retracted position. Using it in the extended position may decrease tow capacity and damage both the tow bar and towed vehicle.



MRAP Flat Towing

MRAPs CAN BE FLAT-TOWED USING ANOTHER MRAP OR LIKE VEHICLE, AS LONG AS THE TOWING VEHICLE IS **OF EQUAL OR GREATER WEIGHT**.

NOTE: THE ONLY ARMY-APPROVED TOW BARS FOR USE WITH MRAPs ARE HEAVY TOW BARS, NSN 4910-01-267-2912 AND 2540-01-434-8595.

THE FOLLOWING CHART TELLS WHICH ADAPTER TO USE WITH EACH MRAP VARIANT.

MRAP Flat Tow Recovery

Adapter	NSN 2540-00-863-3153 (2.5 to 10 ton)
For MRAP variants	BAE Systems RG-33L 6x6 BAE TVS Caiman 6x6 Navistar MaxxPro 4x4
Adapter	NSN 5340-01-267-2908 (10 to 50 ton)
For MRAP variants	Force Protection Cougar 6x6 Force Protection Cougar 4x4 General Dynamics RG-31 4x4 MATV Base/UIK/SOCOM 4x4 Force Protection Buffalo A1/A2

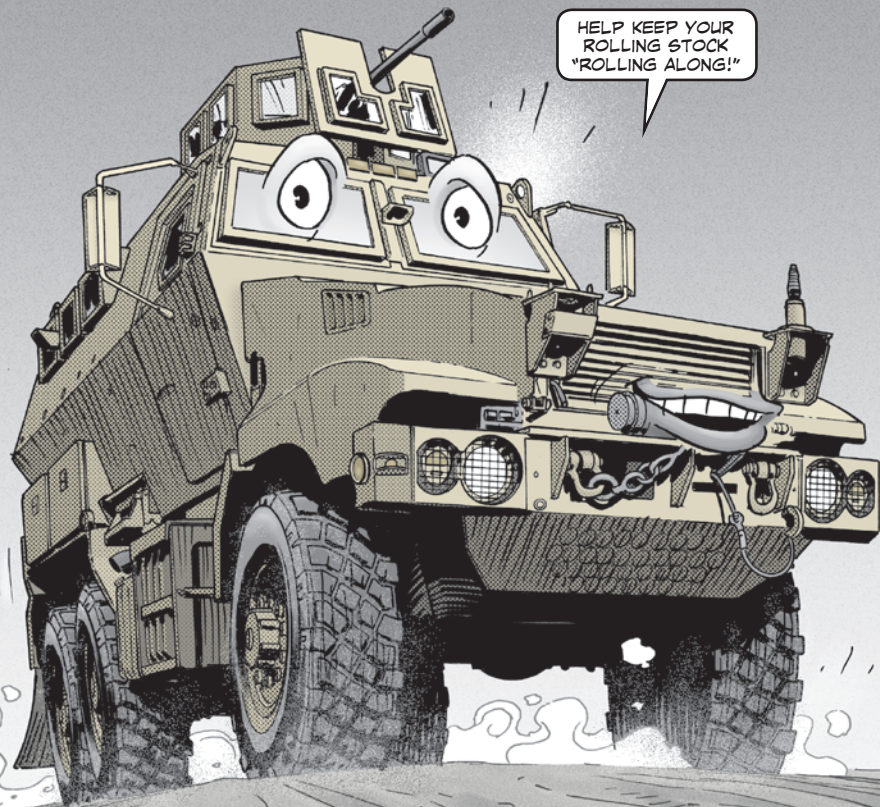
WARNING: A DISABLED VEHICLE WITH CAGED BRAKES SHOULD **NEVER** BE TOWED BY A LIKE VEHICLE. USE DEDICATED RECOVERY ASSETS.

FOR DETAILED VEHICLE RECOVERY INSTRUCTIONS, DOWNLOAD THE FOLLOWING BOOKS IN PDF FROM THE US ARMY SAFETY CENTER: **TOW BAR SMART BOOK** (SEP 13) AND **TACTICS, TECHNIQUES AND PROCEDURES (TTP) FOR RECOVERING THE MINE RESISTANT AMBUSH PROTECTED (MRAP) VEHICLES** (JAN 13). GO TO:

<https://safety.army.mil>

FIND THE ON-DUTY DROP-DOWN MENU AND SELECT **GOVERNMENT MOTOR VEHICLE**. UNDER FEATURED TOOLS AND RESOURCES, CLICK ON **RECOVERY TOWING**. CAC CARD LOGIN IS REQUIRED.

PS TACTICAL VEHICLES



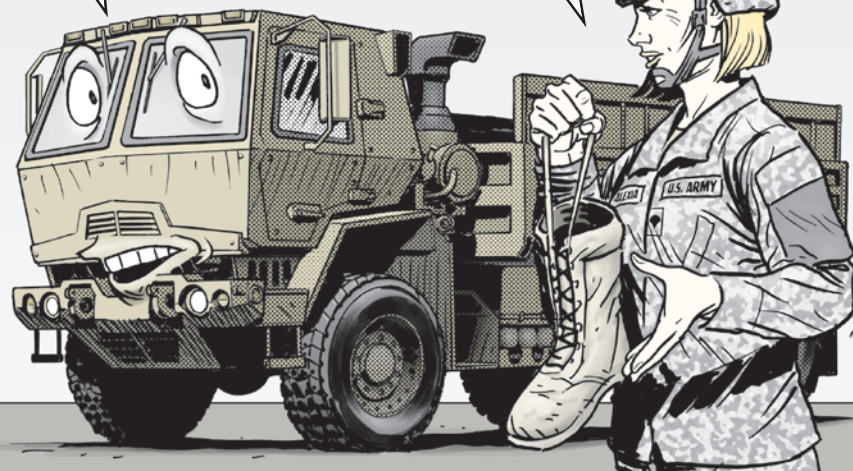
- FMTV dust boots can dry rot—do the fix!
- FMTV: bleeding water from your air tanks
- MRAP MaxxPro headlamps change

FMTV...

REPLACE DUST BOOT FOR *FREE*

WHAT'RE YOU PLANNING TO DO WITH THAT?

I HEARD YOU WERE HAVING **PROBLEMS** WITH A DRY-ROTTING BOOT, SO I THOUGHT I'D BRING YOU AN EXTRA!



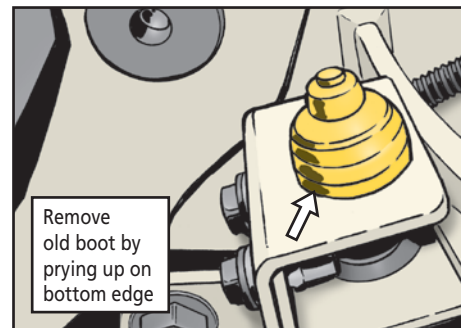
Mechanics, the rubber dust boots that protect the FMTV's cab ride height limit switch could be falling apart. Exposure to the elements can make these old-style boots dry rot.

A dry-rotted boot doesn't provide much protection. And that could lead to problems!

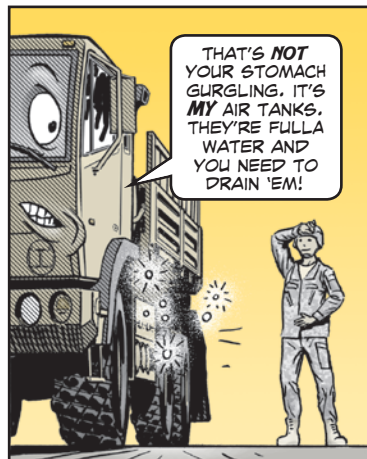
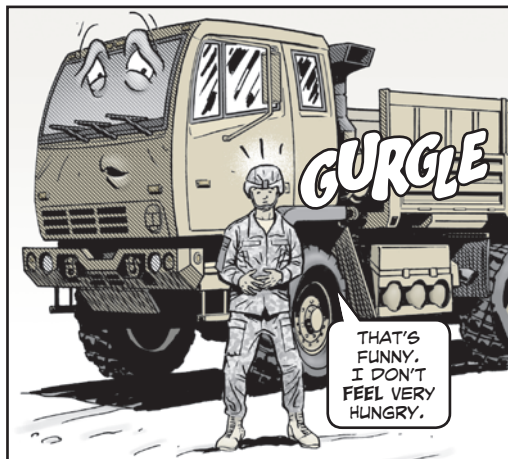
Whether the boot has started dry-rotting or not, you need to replace it. Remove the old boot by prying up its bottom edge. Then replace it with NSN 5930-01-642-8386 (PN 12532115). That gets a new-style boot that holds up to the elements better.

And if your truck qualifies, you can get a free boot by submitting a deficiency request form at: defensecampaign@defense.oshkoshcorp.com

This offer applies only to vehicles built between 11 Apr 12 and 28 Feb 15. And it expires February 2017. You'll find the vehicle's built-date info on the data plate inside the cab next to the driver's knee.



MOISTURE'S NOT BEAT 'TIL DRAINING'S COMPLETE!



Dear Half-Mast,

Operators need another reminder about fully draining the air tanks on their FMTVs after the day's operation. I've seen some Soldiers turning the air tank's drain valve for only 2-3 seconds before closing it. That's just not enough time to get out all the moisture.

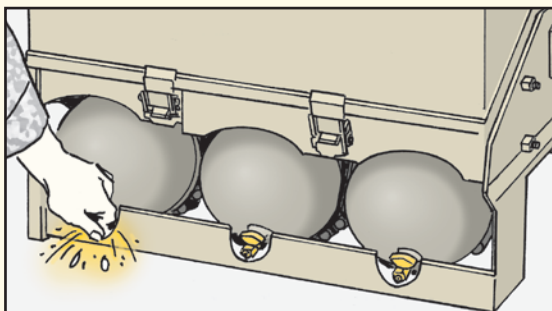
By the way, should the air tanks be drained in a particular sequence?

Mr. L.A.M.

Dear Sir,

You're right. That's not enough time to get all the water out.

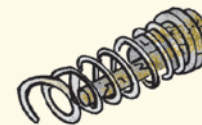
Draining the air tanks is a daily, after-operation requirement. And it's not finished until all the moisture is out. That means the valves stay open until the moisture is completely gone. A lot of times, that doesn't happen until the tank is almost completely drained of air.



Drain all moisture from air tanks after operation

Leaving behind moisture leads to corrosion that plugs up the entire air system, including brake valves and cylinders, CTIS filters, and gladhands. It can lead to vehicle brake failure, too!

Moisture leads to rust in air system components



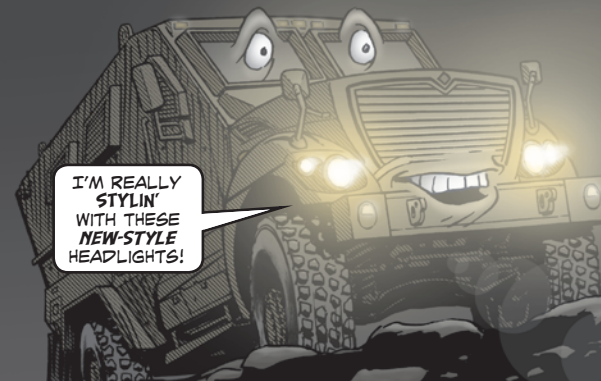
'Course, that doesn't mean you should leave the drain valves open overnight, either. That only allows more water to get trapped inside the tank. More water, more corrosion.

The PMCS in the FMTV's -10 TM doesn't have a specific sequence for draining the air tanks. So you can go in any order you want.

Half-Mast

MaxxPro MRAPs...

Shedding **Light** on Headlight NSN



Need a new headlight for your MaxxPro Base, Plus or Dash MRAP? Get it with NSN 6220-01-607-8477.

It replaces the old halogen headlight, NSN 6220-01-555-5000, which is now a terminal item. Until the TMs are updated, change the old NSN to the new one in the following locations:

- **Item 3** in Fig 65 of TM 9-2355-106-23P (Nov 11) for the M1224 and M1224A1 base models.
- **Item 6** in Fig 9-3.2 of TM 9-2355-318-24P-1 (Apr 12) for the M1234 and M1234A1 Plus.
- **TM 9-2355-324-24P-1, -2 and -3** (Jun 10) for the M1235, M1235A1 and M1235A2 Dash. This TM never included headlight parts info, so jot down the new NSN until those TMs are updated.

IF YOU WANT ME
TO DIG AWAY, DO
MY PMCS TODAY.

- VMMD Husky's need flat towing
- M9 ACE roadwheel damage faults
- 120 Road grader batteries disconnect
- 120 tandem oil checks

M1231 VMMD Husky...

**Be in
the Know
Before
You Tow!**

DISABLED, HUH?
NOT TO WORRY.
I CAN TOW
YOU BACK.

IT'S **GOTTA** BE A **FLAT-TOW**,
THOUGH! NONE OF THAT
LIFT-TOW STUFF FOR ME!

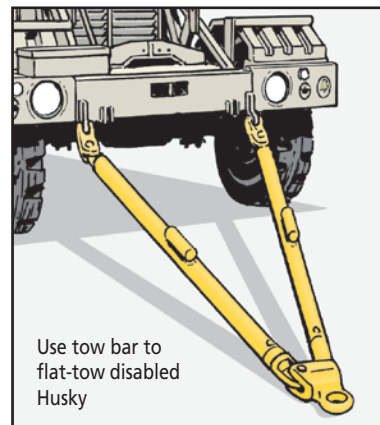
Listen up, operators and mechanics! How you tow a disabled Husky vehicle mounted mine detection (VMMD) system is a big deal. Do it the wrong way and the Husky will suffer even more damage.

Always flat-tow the Husky!

Keep in mind that the Husky's wheel modules are designed to break away from the hull in a blast event. That's to help protect the vehicle operator.

But if you lift-tow a disabled HUSKY, the force exerted on the wheel module is similar to a blast event. The vehicle frame's frangible bolts, which hold the front and rear modules to the hull, break away from the hull and the wheel modules separate.

End result: The Husky drops, causing damage to the vehicle's hull and possibly injuring you!



TACOM IS ADDING A NEW WORK PACKAGE
TO TM 9-2355-316-10.

"INTRODUCTION TO PREPARATION FOR
RECOVERY AND TIEDOWN PROCEDURES" WILL
ALSO INCLUDE A STATEMENT THAT READS...

WARNING

**LIFT-TOWING THE M1231 HUSKY
CAN RESULT IN INJURY AND/OR
DEATH TO PERSONNEL.**

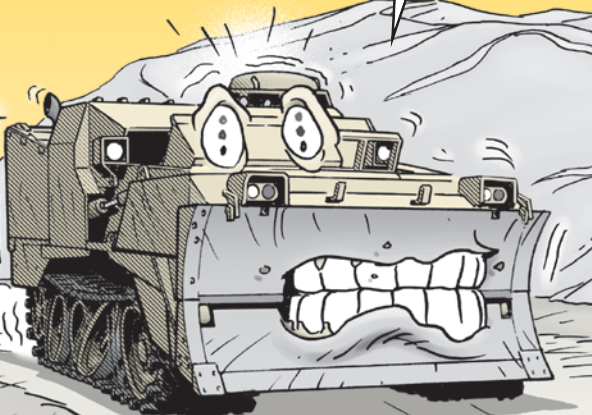
HERE'S THE KEY POINT TO REMEMBER...

RECOVERY TEAMS
AND ROUTE CLEARANCE
UNITS WILL RECOVER
THE M1231 HUSKY BY
FLAT-TOW ONLY.

**LIFT-TOWING
THE HUSKY
IS NOT
AUTHORIZED.**

MAKE ROADWHEEL DAMAGE A THING OF THE PAST

THE CUH-CONDITION OF MY RUH-RUH-ROADWHEELS IS TURNING THIS SMOOTH PUH-PATH INTO A RUH-RUH-ROCKY ONE! HOPE THEY CHECK 'EM OUT SUH-SOON.



OPERATORS, TAKE A CLOSE LOOK AT THE RUBBER ON YOUR EARTHMOVER'S ROADWHEELS AFTER EACH DAY'S RUN. HERE ARE THE **TWO TYPES OF DAMAGE** YOU SHOULD BE ON THE LOOKOUT FOR.

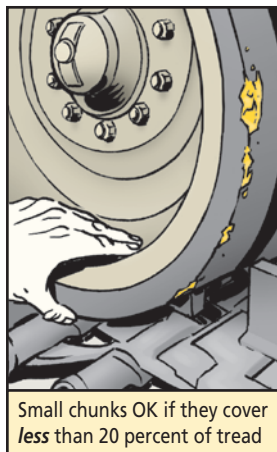
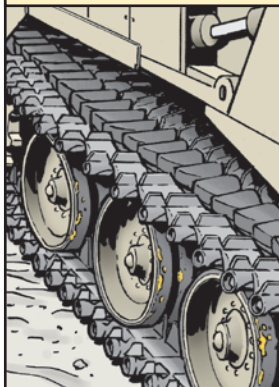
Chunking

JUST ONE MISSING CHUNK OF RUBBER THAT EXPOSES METAL MEASURING 3 X 4 INCHES OR LARGER IS ENOUGH TO MAKE YOUR VEHICLE NMC.

EVEN SMALLER CHUNKS CAN MAKE THE ROADWHEEL UNSERVICEABLE IF THEY COVER MORE THAN 20 PERCENT OF THE TREAD SURFACE WHEN ADDED TOGETHER.

THE DEPTH OF THE SMALLER CHUNKING DOESN'T MATTER.

Large chunks of missing rubber can make vehicle NMC

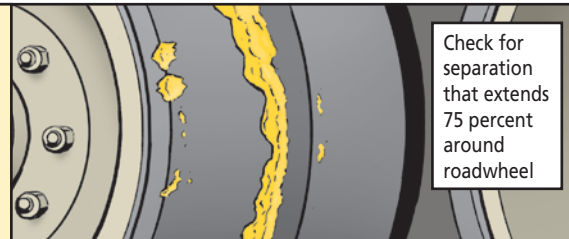


Small chunks OK if they cover less than 20 percent of tread

Tread Separation/Weather Cracking

SEPARATION OF THE TREAD THAT IS 1 INCH OR WIDER AND GOES AROUND 75 PERCENT OF THE ROADWHEEL MAKES YOUR VEHICLE NMC.

WEATHER CRACKS THAT EXTEND **COMPLETELY** ACROSS THE TREAD SURFACE, MAKE THE WHEEL UNSERVICEABLE.



Check for separation that extends 75 percent around roadwheel

An Ounce of Prevention

NOW THAT YOU KNOW WHAT TO LOOK FOR, HERE'S HOW TO PREVENT THOSE PROBLEMS...



- Check track tension after every operation and adjust it as necessary.

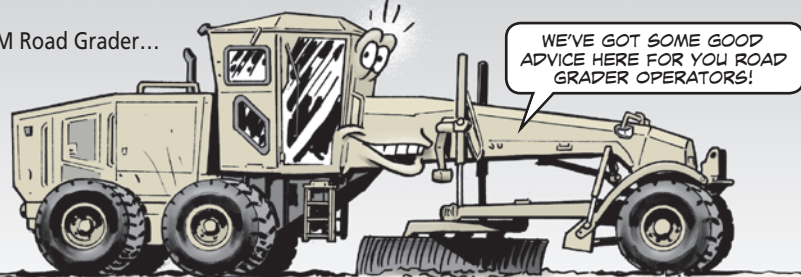


- Check for loose roadwheel mounting nuts.



- Eyeball the track daily for rocks and other debris that get wedged into crevices.

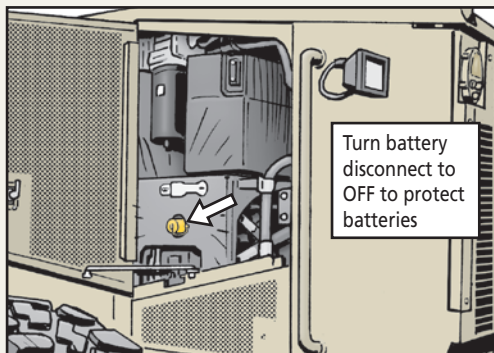
- Read and heed the words in TM 9-2350-200-24, *Standards for Inspection and Classification of Tracks, Track Components and Solid-Tires*.



SAVE BATTERIES WITH DISCONNECT SWITCH

Operators, make sure you turn the battery disconnect switch in your 120M grader to OFF after the day's run. That keeps the dashboard's electrical system from drawing power from the batteries.

It's especially important if the grader's going to sit idle for a long time. Just insert the switch's key and turn clockwise to OFF.



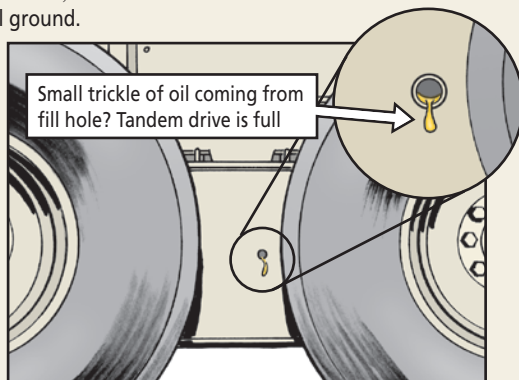
MAKE TANDEM OIL CHECK ON TIME

Operators, you need to check the tandem drive oil level on your 120M road grader every three months or 500 engine hours, whichever comes first. Here's how:

1. Make sure your vehicle is on level ground.

2. Bring the vehicle up to operating temperature. While the oil is still warm, remove the check plug. If the tandem drive is full, the oil will reach the bottom edge of the fill hole. Usually, you'll see a small trickle of oil coming from the check plug opening. If the level is **below** the fill hole, add some oil.

You'll find this check in WP 0013-50 of TM 5-3805-293-10.



PS AVIATION



- AN/PRQ-7 repair parts
- Send CTS to TMDE local support center
- Don't use ANVIS TB, use ASAM instead



NEED PARTS FOR YOUR RADIO?



Dear Sergeant Blade,

In my Army National Guard unit, I support the AN/PRQ-7 radio set, NSN 5820-01-499-4473. We're having trouble finding NSNs for the microphone boots and the battery release catch. Can you help us out with NSNs for these and any other parts?

CW3 T.W.K

CAN DO!
HERE'S A LIST OF **ALL** AVAILABLE SPARE PARTS TO GET THE AN/PRQ-7 OPERATIONAL...



There is no NSN for the safety latch. If you can't properly secure the battery, get a replacement radio like it says in Table 4-2 of TM 11-5820-1159-13.

Item	NSN
Cover replacement kit (microphone boots)	5895-01-587-8342
Non-rechargeable battery	6135-01-568-3234
Rechargeable battery	6140-01-534-3856
Antenna blade	5985-01-502-7930
Strap/pouch	5935-01-458-9450
Earphone	5995-01-502-9465
Earphone tips	5965-01-504-1051
Earphone cushions	5965-01-504-0072
Speaker cover kit	5895-01-587-8342
Antenna nut cap kit	5895-01-587-8349
Antenna rivet kit	5895-01-587-8346

IF YOU HAVE QUESTIONS ABOUT THE RADIO SET, CONTACT CECOM'S MAN BUN LAU AT DSN 648-6415, (443) 395-6415, FAX (443) 395-6459 OR BY EMAIL: man.b.lau.civ@mail.mil

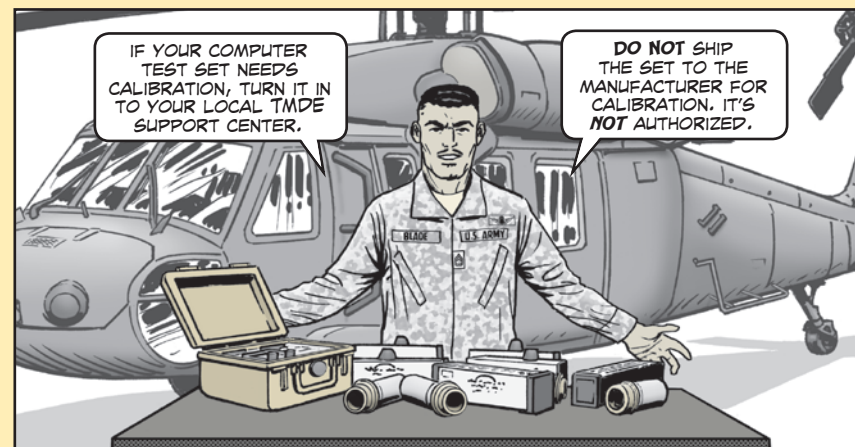
YOU CAN ALSO CONTACT ALENA SMITH-MARTIN AT 443-395-6235 OR BY EMAIL: alena.m.smith-martin.civ@mail.mil

FOR **MORE** RADIO INFO, VISIT THE CSEL WEBSITE: <https://csel.army.mil/csel/menu.cfm>



Aircraft General...

Army Does Test Set Calibration



On Page 60 of PS 742 (Sep 14), we told you to ship the TS-3920C/ASM computer test set (CTS), NSN 6625-01-529-3346, to the manufacturer for calibration. That's not the case.

The TMDE headshed says the TS-3920C/ASM is a secondary transfer level calibration according to TB 43-180, *Calibration and Repair Requirements for the Maintenance of Army Material*. That means factory calibration isn't authorized when the Army calibration program can handle the work. If you use the TS-3920C/ASM test set, turn it in to your local TMDE Support Center when it's time for calibration. They'll calibrate the test set using TB 9-6625-3617-24, *Calibration Procedure for Stabilization System Test Set Ultrax, Model TS3920C/ASM*.

Questions? Contact the TMDE POC, Gary Davenport, at DSN 645-8082, (256) 955-8082 or email: gary.m.davenport.civ@mail.mil

USE OF TB PROHIBITED



TB 1-1500-348-30 was accidentally published with out-of-date ANVIS maintenance procedures and record-keeping information. The TB also refers to systems and components that are obsolete and no longer available in the field.

Destroy all copies of TB 1-1500-348-30. The Army Publishing Directorate (APD) has removed the TB from its website.

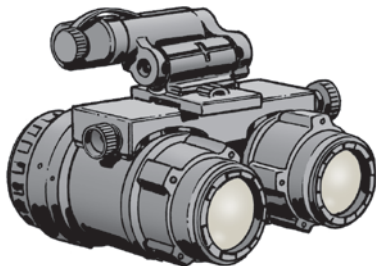
To maintain your ANVIS, follow all the information and procedures contained in GEN-13-ASAM-01 and the applicable maintenance manuals.

For the specific details on both ASAM messages, go to the AMCOM Safety & Maintenance Messages website:

<https://asmprd.redstone.army.mil/SplashPage.asp>

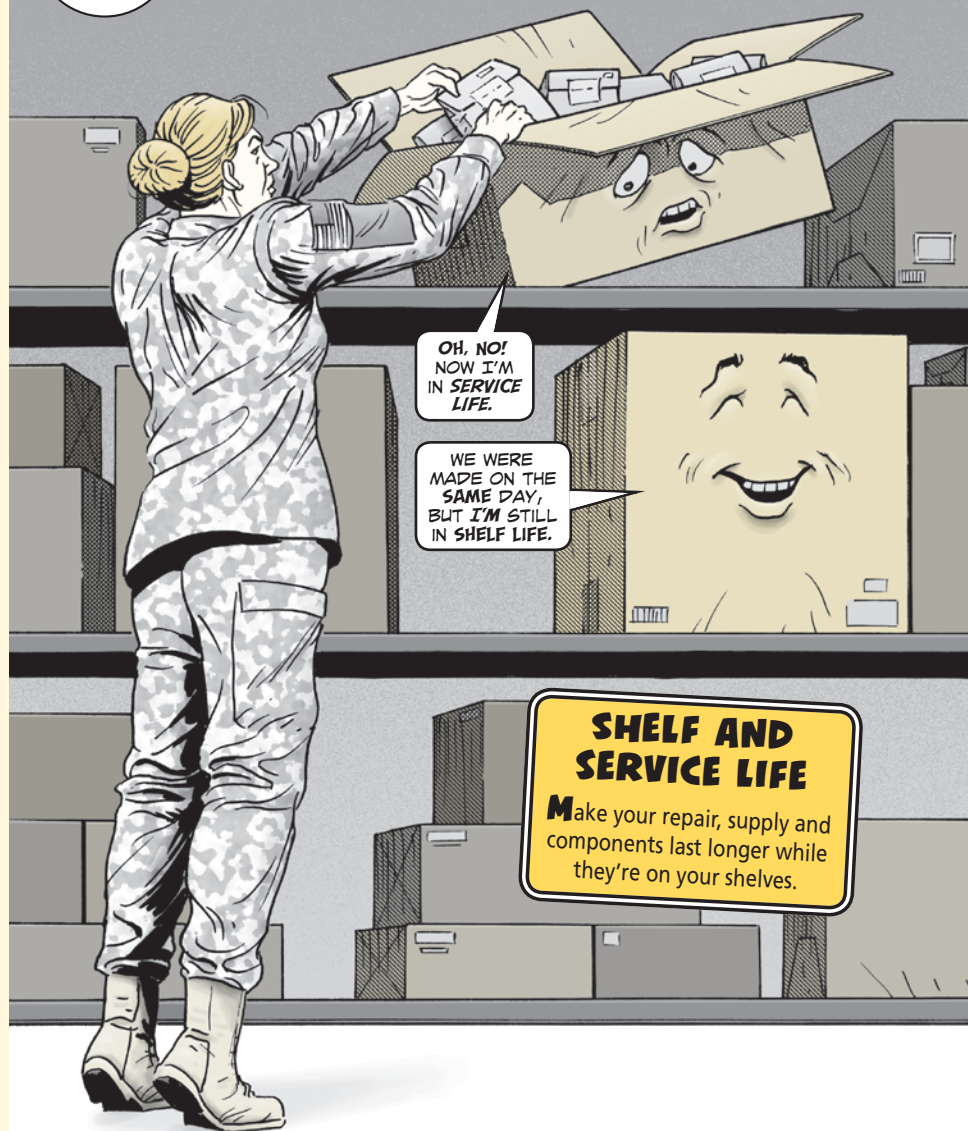
Once there, login with your CAC. Click the Aviation button, then click Consolidated Listing By Aircraft. Select GEN from the Choose System Type drop down menu and click Continue. You can either scroll down until you find the message or click the ASAM button, to go directly to the list of ASAMs.

Do not use TB 1-1500-348-30 to maintain ANVIS



PS

SHELF AND SERVICE LIFE

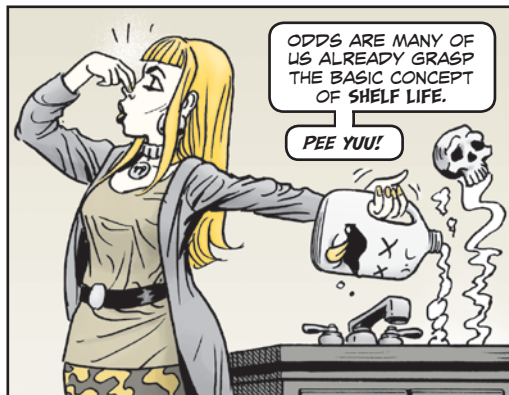


Shelf Life and Service Life

HEY, CLOE, SHELF LIFE ONLY APPLIES TO THINGS LIKE FOOD AND MEDICINE, RIGHT?

LIKE THIS OLD MILK.

THINK AGAIN, PRIVATE. SHELF LIFE APPLIES TO MANY THINGS IN STOCK HERE!



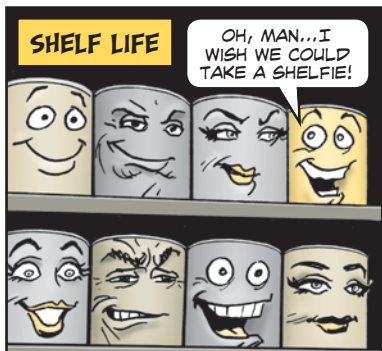
AT THE GROCERY STORE WE OFTEN CHECK EXPIRATION DATES ON BREAD OR MILK TO BE SURE IT'S STILL GOOD BEFORE WE BUY IT.

BEST BEFORE 09/28/15

BUT THE **DIFFERENCE** BETWEEN **SHELF LIFE** AND **SERVICE LIFE** SOMETIMES CAUSES **CONFUSION** IN ARMY SUPPLY CIRCLES.



EVERY SUPPLY ITEM HAS A USEFUL LIFE EXPECTANCY, BUT SHELF LIFE AND SERVICE LIFE ARE **TWO DIFFERENT STAGES** IN AN ITEM'S LIFE.



OH, MAN...I WISH WE COULD TAKE A SHELFIE!

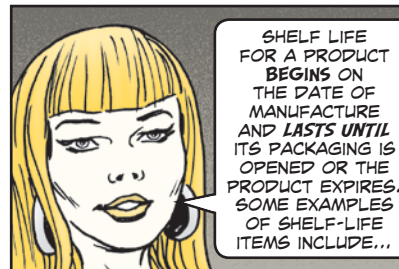
AW-RIGHT!

GO FOR IT!

SERVICE LIFE

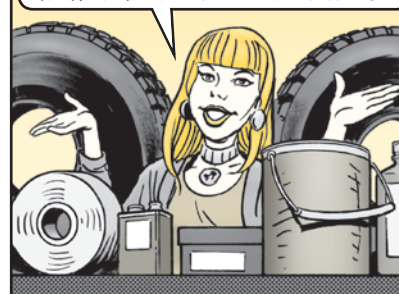
GOTCHA COVERED!

Shelf Life

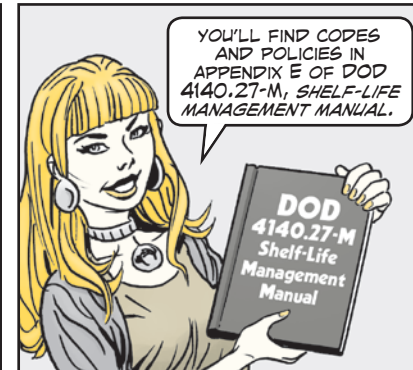


- food
- medicines
- batteries
- paints
- sealants
- adhesives
- film
- tires
- chemicals
- packaged petroleum products
- hoses/belts
- mission-critical O-rings
- nuclear/biological/chemical equipment and clothing

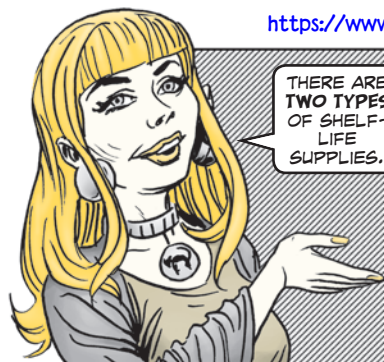
SHELF LIFE CODES TELL YOU THE DATE BY WHICH YOU MUST **USE, INSPECT, TEST, RESTORE OR DISPOSE** OF ITEMS.



YOU'LL FIND CODES AND POLICIES IN APPENDIX E OF DOD 4140.27-M, **SHELF-LIFE MANAGEMENT MANUAL**.



VIEW OR DOWNLOAD IT HERE:
https://www.shelflife.hq.dla.mil/policy_DoD4140_27.aspx



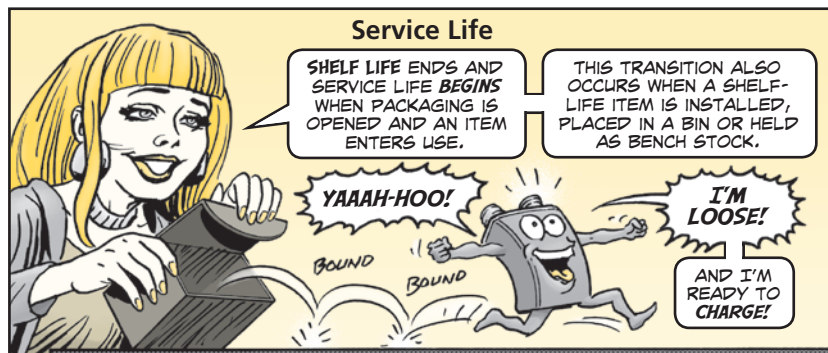
TYPE I ITEMS HAVE DEFINED, **NON-EXTENDIBLE** SHELF LIVES. THEIR USEFULNESS ENDS ON THEIR EXPIRATION DATE.

TYPE II ITEMS HAVE ASSIGNED SHELF-LIFE PERIODS THAT MAY BE **EXTENDED** AFTER INSPECTIONS, TESTS OR RESTORATION.

Shelf-Life Training

DOD Shelf-Life Program computer-based training (CBT) is available from the Defense Acquisition University (DAU). Access DAU's CBT module CLL 120 at:
http://icatalog.dau.mil/onlinecatalog/courses.aspx?crs_id=1884

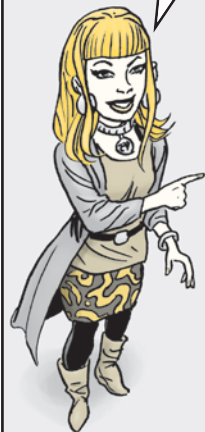
PS MORE



SERVICE LIFE IS A GENERAL TERM FOR THE AVERAGE OR STANDARD LIFE EXPECTANCY OF AN ITEM WHEN IT'S IN USE. MORE TESTING AND INSPECTION IS NEEDED ONCE AN ITEM ENTERS ITS SERVICE LIFE. YOU'LL FIND THE SERVICE LIFE TESTING AND INSPECTION REQUIREMENTS FOR SOME ITEMS IN THEIR TMS.

HOWEVER, MANY CONSUMABLE TYPE I (NON-REPARABLE) ITEMS **DO NOT** HAVE SPECIFIC SERVICE LIVES. IF THERE'S ANY **DOUBT** ABOUT THE SAFETY OR SERVICEABILITY OF AN ITEM, **DISPOSE OF IT PROPERLY.**

HERE ARE SOME **EFFECTIVE** SHELF LIFE AND SERVICE LIFE MANAGEMENT TECHNIQUES...



- Requisition/procure items in smaller quantities and units of issue. Use supply support requests when necessary.
- Reduce inventory stockage levels.
- Requisition items just-in-time.
- Practice stock rotation: First-in, first-out (FIFO).
- Maintain required storage conditions, particularly for shelf life items that are hazardous materials.
- Extend Type II shelf-life items by:
 - using test results from the Shelf-Life Extension System (SLES).
 - testing samples when cost effective, or
 - accomplishing authorized visual inspections or restoration procedures.
- Label extended Type II items using DD Form 2477 series labels, available from the DOD shelf-life website.
- Prepare Supply Discrepancy Reports (SDRs) when issued outdated shelf-life items.
- Submit shelf-life code challenges to the DOD shelf-life website when experience indicates a change is needed.
- Process outdated items promptly for disposal.
- Obtain shelf-life training at the DOD shelf-life website.
- Follow tech pub guidance when managing service life.

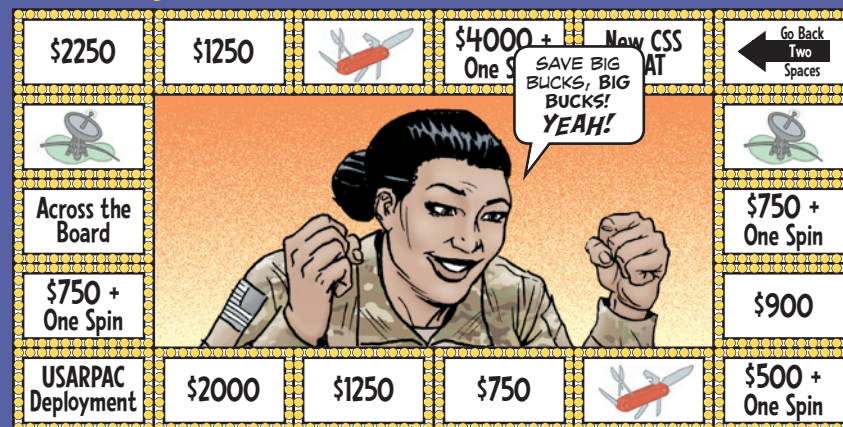
FOR MORE INFORMATION, VISIT DOD'S SHELF-LIFE WEBSITE:
<https://www.shelflife.hq.dla.mil/>

FOR QUESTIONS, EMAIL THE ARMY'S SHELF-LIFE POC AT: sles.army@dia.mil OR CONTACT THE LOGISTICS SUPPORT ACTIVITY'S PACKAGING, STORAGE AND CONTAINERIZATION CENTER AT DSN 795-7257, (570) 615-7257, OR EMAIL: usarmy.tyad.usamc.mbx.pt@mail.mil



Supply...

WHEN Local Purchase \$AVE\$ BIG BUCKS



Dear Half-Mast,

My unit wants to purchase ten pallets of paper. If we go through MILSTRIP, it'll cost more than \$10,000. I did some research and found if we local purchase that same paper, it will cost about \$2,000 less. Is there an Army policy I can reference to purchase this paper at the lower cost, thus saving taxpayer money?

SFC G.R.

Dear Sergeant,

Nice fiscal eye from the supply guy! Local purchase policy is covered in AR 710-2, *Supply Policy Below the National Level* (Mar 08). See Section 4-16 for specific local purchase guidance (Page 118). View or download the pub here:

http://www.apd.army.mil/pdf/files/r710_2.pdf

To quote from the reg, "Local purchase may be an option for any centrally managed, commercially available item provided such action best serves the interest of the Government in terms of the combination of quality, timeliness, and cost that best meets the requirement."

If you have specific supply questions, the experts at the Quartermaster School are the go-to folks. You can reach them at the CSDP and Property Accountability Knowledge Center on AKO:

<https://www.us.army.mil/suite/page/670916>

Click the red Ask the Expert button, or email your supply questions to:

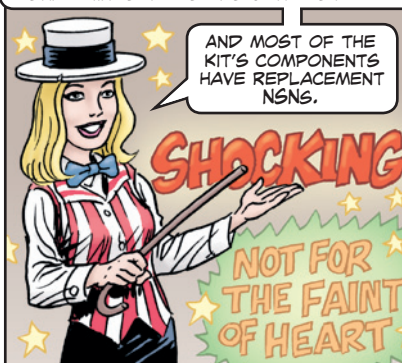
usarmy.lee.tradoc.mbx.pa-csdp-helpdesk@mail.mil

Half-Mast

GET'CHER SNAP RINGS HERE!

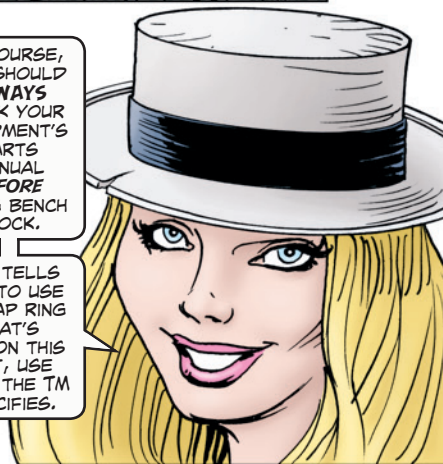


NSN 5325-00-213-9035 BRINGS A HUGE ASSORTMENT OF EXTERNAL AND INTERNAL SNAP RINGS TO USE AS BENCH STOCK.



OF COURSE, YOU SHOULD ALWAYS CHECK YOUR EQUIPMENT'S PARTS MANUAL BEFORE USING BENCH STOCK.

IF IT TELLS YOU TO USE A SNAP RING THAT'S NOT ON THIS LIST, USE WHAT THE TM SPECIFIES.



External			
Inner Diameter Size	NSN 5325-	Qty	
5/32-in shaft	00-868-3936*	1	
3/16-in shaft	PN 027-2434	10	
1/4-in shaft	00-720-8064	1	
1/2-in shaft	00-803-7301	100	
1/2-in shaft	01-195-8941*	1	
9/16-in shaft	00-584-6557	1	
5/8-in shaft	00-803-7305	100	
11/16-in shaft	00-810-8932	100	
3/4-in shaft	00-803-7303	1	
25/32-in shaft	00-804-7653	1	
27/32-in shaft	PN 3100-84, CAGE 08292	10	
1 9/16-in shaft	00-803-7304	1	
E-ring, 1/8-in shaft	00-816-4239	100	
E-ring, 3/16-in shaft	00-282-1633	100	
E-ring, 7/32-in shaft	00-682-1498	1	
E-ring, 1/4-in shaft	00-721-7680	100	
E-ring, 5/16-in shaft	00-682-1762	100	
E-ring, 7/16-in shaft	00-905-3633	1	
E-ring, 1/2-in shaft	00-442-5845	100	
E-ring, 5/8-in shaft	00-842-2613	1	
Bowed E-ring, 1/2-in shaft	00-664-5389*	1	
Reinforced ring, 3/8-in shaft	00-256-2465	1	
Reinforced ring, 9/16-in shaft	PN 400-112-SS2, CAGE 97464	10	
Crescent, 7/32-in shaft	00-993-5303	1	
Crescent, 3/8-in shaft	00-584-6620	50	
Crescent, 1/2-in shaft	00-256-2846	1	
Crescent, 5/8-in shaft	00-887-8342	1	

Internal			
External Diameter Size	NSN 5325-	Qty	
1/2-in housing	00-804-9743	1	
5/8-in housing	00-687-3379	100	
3/4-in housing	00-754-1082	1	
7/8-in housing	00-804-9739	1	
1-in housing	00-807-2636	1	
1.023-in housing	00-721-4828	100	
1 1/16-in housing	00-811-4073	1	
1 1/4-in housing	00-804-2786	1	
1 3/8-in housing	00-754-1083	1	
1 1/2-in housing	00-804-3891	1	
1 3/4-in housing	00-804-5827	1	

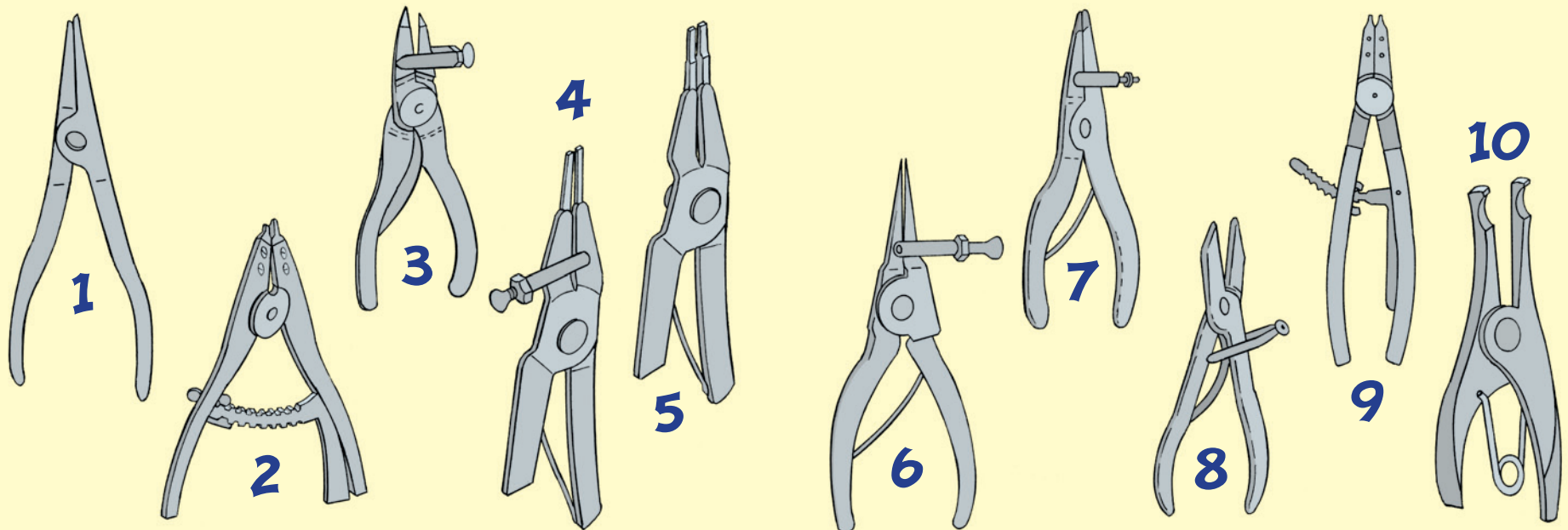
*Order on a DD Form 1348-6 and put "NSN not on AMDF" in the REMARKS block.

ONCE YOU'VE GOT A GOOD COLLECTION OF **SNAP RINGS**, YOU'LL NEED SOME **SNAP RING PLIERS** TO INSTALL AND REMOVE 'EM.

#	NSN 5120-	Description	Type	Class	Size
1	00-293-0044	External, straight tips, 3.15 to 3.5-in ring size, .115-in dia	2	3	4
2	00-595-9552	External, straight tips, 3.5 to 6 1/2-in ring size, .12-in dia tips	2	4	3
3	00-293-0045	Internal, straight tips, 1.75 to 2-in ring size, .07-in dia	1	1	4
4	00-293-0048	Internal, straight tips, 1.02 to 1.37-in ring size, .038-in dia	1	1	2
5	00-596-1106	Internal, straight tips, .25 to .31-ring size, .022-in dia	1	2	1
6	00-293-0049	External, flat jaws, straight tips, 1.43 to 2-in ring size, .07-in dia	2	2	3
7	00-288-9717	External, straight tips, .0038 to 1-in ring size, .0038-in dia	2	2	1

HERE'S WHAT'S AVAILABLE...

#	NSN 5120-	Description	Type	Class	Size
8	00-293-0046	Internal, straight tips, 3 to 3.5-in ring size, .09-in dia	1	1	5
9	00-293-0186	Internal, straight tips, 3.15 to 6.5-in ring size, .12-in dia	1	3	3
10	00-595-9551	External, (automotive) brake key	3	2	1



Remove Unit-Provided Crests and Patches Before PCS

JUST WANTED TO POP IN AND SAY SO LONG, GRIMES! TODAY'S MY LAST DAY. I'M PCS'ING TO FT GREEN.

WE'LL MISS YA, BENNETT.

BUT HEY, DON'T FORGET TO TURN IN THAT UNIT PATCH BEFORE YOU HIT THE ROAD.

YOU'RE NO LONGER A MEMBER OF THE FIGHTING LLAMAS.

RATS! I THOUGHT I GOT TO KEEP THIS CLASSY THING AS A SOUVENIR.

SAY, MASTER SERGEANT HALF-MAST, WHICH REGULATION COVERS THE TURN-IN OF UNIT-PROVIDED CRESTS AND PATCHES TO THE SUPPLY ROOM BEFORE A SOLDIER'S PERMANENT CHANGE OF STATION MOVE?

WELL, SERGEANT, IT'S LIKE THIS: UNIT-PROVIDED PATCHES AND CRESTS FALL UNDER THE ORGANIZATIONAL PROPERTY CATEGORY.

AR 700-84, ISSUE AND SALE OF PERSONAL CLOTHING (JUL 14), COVERS THIS TOPIC AS FOLLOWS...

12-12. Clothing items not authorized for retention
 a. All basic issue clothing items (except organizational property such as patches and crests) will remain with the enlisted Soldier when they are transferred. The unit will ensure an accurate inventory is done prior to transfer as a part of the Soldier's out processing. The clothing record will be included in the Soldier's IPERMS (see para 14-9).
 b. Clothing items not authorized for retention, are withdrawn, classified, and turned in to the supply system (see para 1-6a). If they are not required in the supply system, they are turned in to the DRMS. All ARNG items not authorized for retention are processed as prescribed by appendix C of the ARNG Central Clothing Distribution User Handbook.

YOU CAN DOWNLOAD AR 700-84 AT
http://www.apd.army.mil/pdffiles/r700_84.pdf

HERE ARE A COUPLE SUGGESTIONS FOR CLARIFYING THINGS ON A LOCAL LEVEL.

ADD A PHRASE TO THE UNIT'S SUPPLY SOP THAT SPECIFICALLY COVERS THIS SUBJECT, SUCH AS, "DURING OUT-PROCESSING, SOLDIER WILL TURN IN ALL UNIT-ISSUED UNIT PATCHES AND CRESTS TO SUPPLY PERSONNEL, PER AR 700-84."

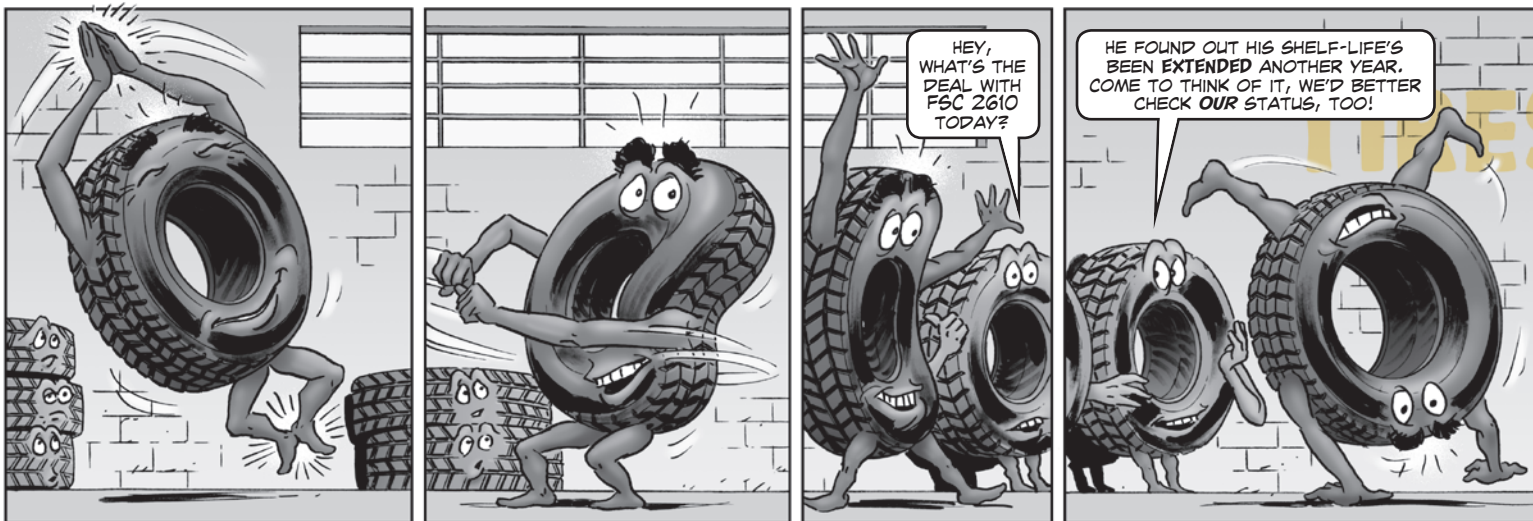
UNITS COULD ALSO ADD THE TURN-IN OF UNIT-ISSUED PATCHES AND CRESTS TO THE LIST OF CLEARANCE REQUIREMENTS FOR OUT-PROCESSING SOLDIERS.

THANKS! BUT I'VE STILL GOT SOME MORE SUPPLY QUESTIONS.

NO PROBLEM! THE EXPERTS AT THE QUARTERMASTER SCHOOL ARE THE GO-TO FOLKS. YOU CAN REACH THEM AT THE CSDP AND PROPERTY ACCOUNTABILITY KNOWLEDGE CENTER ON AKO:
<https://www.us.army.mil/suite/page/670916>

CLICK THE RED ASK THE EXPERT BUTTON, OR EMAIL YOUR QUESTIONS TO:
usarmy.lee.tradoc.mbx.pa-csdp-helpdesk@mail.mil

LONGER SHELF LIFE FOR SOME TIRE AND WHEEL ASSEMBLIES



The shelf life (SL) for more than 80 tire and wheel assemblies has increased to 6 years (72 months). This change applies to assemblies under federal supply class (FSC) 2530 and pneumatic tires under FSC 2610.

These assemblies are now assigned a Type II (extendible) SL code of “X”, and the component tires with a Type I (non-extendible) SL code “I” in various logistics information systems.

This means that the assemblies, if not placed into service before their inspect/test dates, must be shipped to designated maintenance repair facilities so that the tires and other items that deteriorate can be replaced.

The original date of manufacture (DOM) should be marked on the packaging. But it can also be identified by the last four digits (week/year) of the DOT serial number stamped in the tire’s sidewall. The SL inspect/test date can be figured by adding 72 months to the DOM. It will expire on the last day of that month. For more guidance, see Page 12 of PS 735:

<https://www.logsa.army.mil/psmag/archives/PS2014/735/735-12.pdf>



Take note that some assemblies will keep an SL of 5 years or 60 months. Those assemblies will have an SL code of “9” Type II. The tires will have an SL code of “S” Type I.

DOD’s Shelf-Life Extension System (SLES) has also been updated with SL code changes and instructions. Be sure to check the SLES for the correct SL codes for specific assemblies or tires. Visit: <https://headquarters.dla.mil/j-3/shelflife/>

TACOM LCMC will issue a maintenance information memorandum with additional detailed field guidance. You can also read Pages 54-57 in PS 745 for a step-by-step guide to using DOD’s SLES:

<https://www.logsa.army.mil/psmag/archives/PS2014/745/745-54-57.pdf>

FOR MORE INFO ON THIS TOPIC OR OTHER SHELF-LIFE ISSUES, CONTACT THE LOGISTICS SUPPORT ACTIVITY’S PACKAGING, STORAGE AND CONTAINERIZATION CENTER AT DSN 796-7685/7144, (570) 615-7685/7144, OR EMAIL: usarmy.tyad.usamc.mbx.pt@mail.mil



Army Warranty Program Pub Updated

A major revision to AR 700-139, *Army Warranty Program*, became effective March 2015. Download the pub at: http://www.apd.army.mil/pdf/files/r700_139.pdf

Updated APE Pub

An update to AR 700-20, *Ammunition Peculiar Equipment*, went into effect in April 2015. It covers ammunition peculiar equipment (APE) and ammunition gage programs. Download the pub at: http://www.apd.army.mil/pdf/files/r700_20.pdf

CONNECT TO THESE CONNECTOR NSNs

CONNIE, WE'RE LOOKING FOR A KIT FOR ALL THOSE WATERPROOF ELECTRICAL CONNECTORS ON OUR TACTICAL VEHICLES.

THE ONES USUALLY CALLED PACKARD CONNECTORS?



YES! THOSE. CAN YOU HELP US FIND THE KIT?

UNFORTUNATELY, NO SUCH KIT EXISTS!



HOWEVER, YOU CAN ORDER THE CONNECTORS INDIVIDUALLY! USE THESE NSNs...

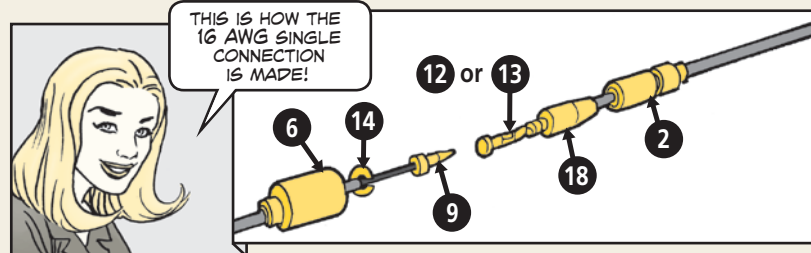
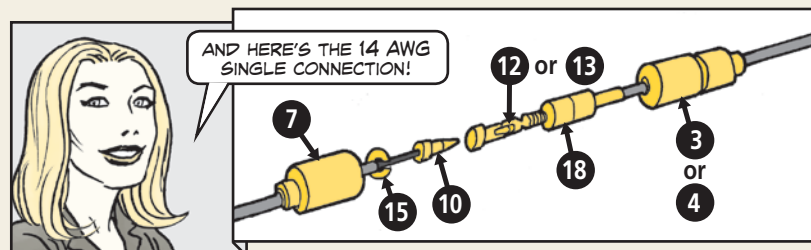
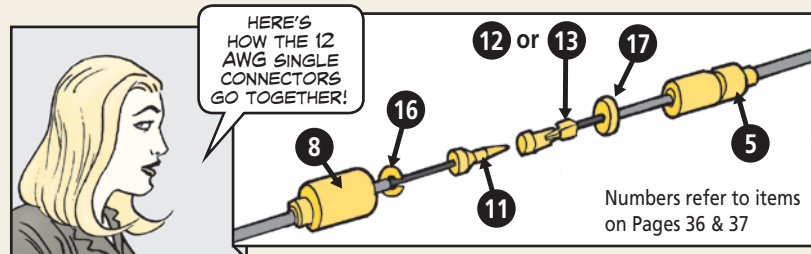


NSN	Description		Qty
5935-00-900-6281	Adapter, connector, "Y"		1
5975-00-660-5962	Cable nipple (male shell for 16 AWG wire)		100
5935-00-833-8561	Connector (male shell for 14 AWG wire)		1
5935-00-399-6673	Connector (ribbed male shell for 14 AWG wire)		1
2590-00-695-9076	Shell, headlight circuit (male shell for 12 AWG wire)		1
5935-00-691-5591	Shell, electrical connector (female shell for 16 AWG wire)		1
5935-00-572-9180	Connector (female shell for 14 AWG wire)		1
5935-00-695-9077	Shell, electrical connector (female shell for 12 AWG wire)		1
5999-00-926-3144	Electrical contact for 16 AWG wire		1

NSN	Description		Qty
5999-00-057-2929	Electrical contact for 14 AWG wire		1
5999-00-925-6495	Electrical contact for 12 AWG wire		1
5940-00-846-5012	Ferrule, electrical connector, (female solder terminal for 12, 14 and 16 AWG wire)		5
5940-00-399-6676	Terminal assembly (female crimp terminal for 12, 14 and 16 AWG wire)		25/pkg
5310-00-656-0067	Slotted washer for 16 AWG wire		100
5310-00-833-8567	Slotted washer for 14 AWG wire		100
5310-00-595-7044	Slotted washer for 12 AWG wire		100
5310-00-298-8903	Flat washer (terminal retainer for 12 AWG wire)		100
5970-00-833-8562	Insulator (plastic insert for 14 and 16 AWG wire)		100



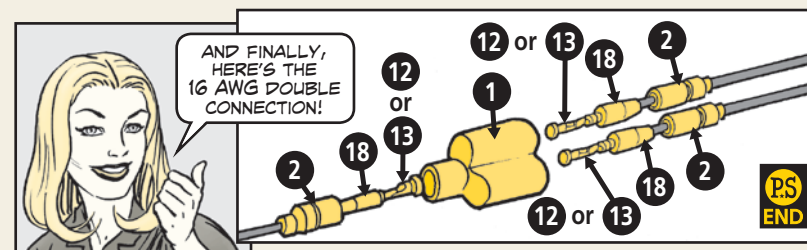
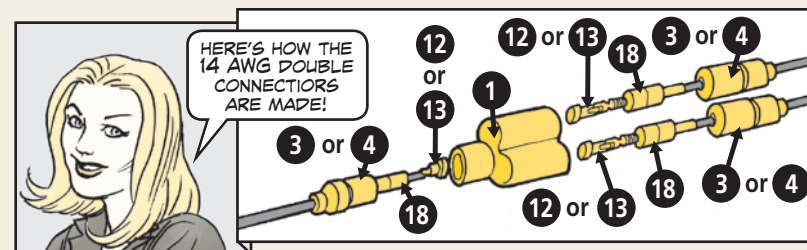
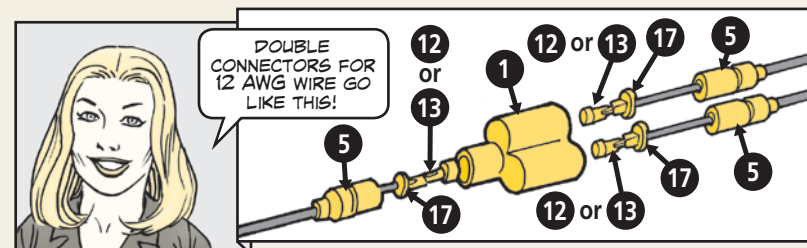
- Match the parts with the wire (12, 14 or 16 AWG wire).
- Use washer, NSN 5310-00-298-8903, instead of plastic sleeve, NSN 5970-00-833-8562, when working with 12 AWG wire.
- Use the two types of male shells (ribbed and plain) to identify the positive (+) and negative (-) hookups on polarized units. For example, always use ribbed for positive and plain for negative—or vice-versa.



- Never mash down on the rubber shells to get a good connection. You'll just mangle the female connector and make it tougher to get a connection.
- Distinguish between the two types of female connectors: crimp-on and solder. The connector with a solid sleeve gets crimped on the wire. With the other type, you bend the larger tabs around the insulated part of the wire and the smaller tabs around the bare wire. Then add a dab of solder.

You can use either type of connector with 14 or 16 AWG wire. But for 12 AWG wire, the crimped version is better. If you use the solder type, the large tabs can't be used to latch onto the insulation because the small washer must be used. The washer goes between the insulation and the terminal. Peel off the insulation, slip on the washer and add the terminal. Bend over the tabs and solder on the terminal.

- Use a dab of silicone compound, NSN 6850-00-880-7616, to make hookups easier. Put the compound on the male shell before you mate it to the female shell. It'll also help when you disconnect.
- Don't bend connections up and down to separate them. If you can't pull on the wires to separate the connection, try inserting something between the shells and prying gently until you can pull the connectors apart.





PS SMALL ARMS

ALSO
FEATURING
TOOLS
AND
CBRN

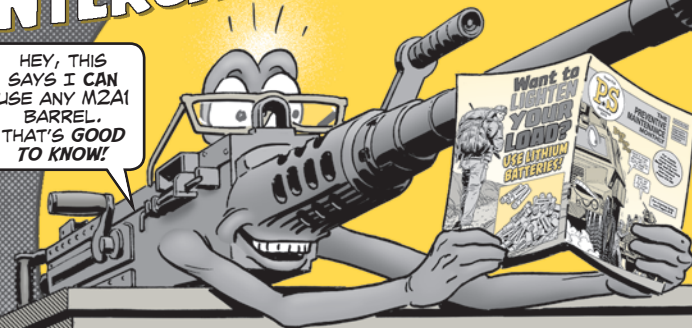
- M2A1 barrels are interchangeable
- How to keep your CROWS crowing
- M240L MWO ending early. Are yours modified yet?
- Use small arms special tools



- 120mm mortar gage
- M252A1 mortar fielding
- Failing IR switches on the AN/PED-5 LTLM
- TMWSS/SEW get spare tire mounts
- M40/M42 retaining clamps for expired MWO
- M50 operator cards

M2A1 Barrels Are INTERCHANGEABLE!

HEY, THIS SAYS I CAN USE ANY M2A1 BARREL... THAT'S GOOD TO KNOW!



Dear Editor,

In the article on Page 39 of *PS* 746 (Jan 15) on the importance of changing machine gun barrels during firing, you said the M2A1 barrels must be specifically gaged to that weapon.

That's not true. TM 9-1005-347-10 says, "All M2A1 barrels are interchangeable without affecting the headspace or timing of the weapon."

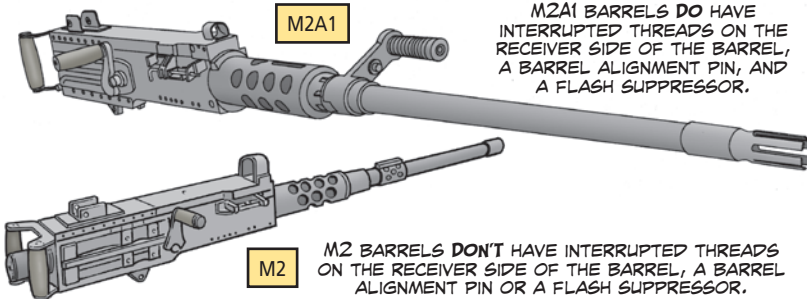
SFC Sylbert Jackson-Smith
Armament Maintenance NCO
Joint Base Lewis-McChord



YOU'RE RIGHT! ONCE THE 91F GAGES THE M2A1, ANY M2A1 BARREL CAN BE USED WITH IT.

BUT REMEMBER YOU CAN'T USE AN M2 BARREL WITH AN M2A1 RECEIVER AND VICE VERSA.

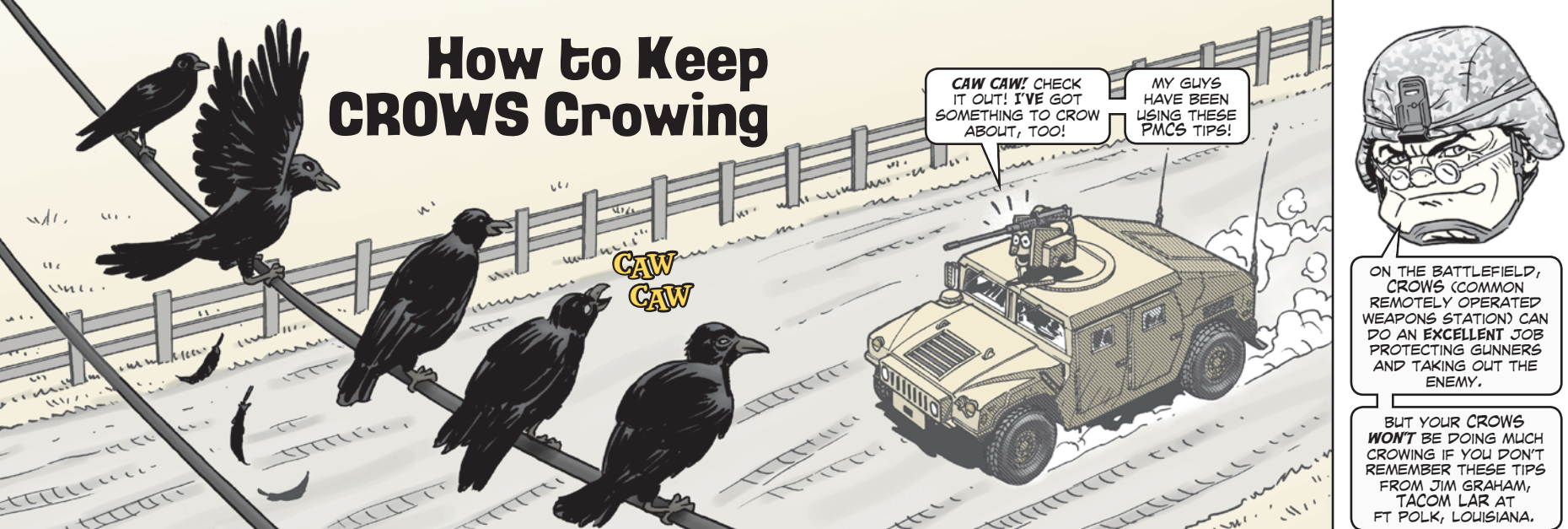
SO, HOW DO YOU TELL THE DIFFERENCE BETWEEN BARRELS?



M2A1 BARRELS DO HAVE INTERRUPTED THREADS ON THE RECEIVER SIDE OF THE BARREL, A BARREL ALIGNMENT PIN, AND A FLASH SUPPRESSOR.

M2 BARRELS DON'T HAVE INTERRUPTED THREADS ON THE RECEIVER SIDE OF THE BARREL, A BARREL ALIGNMENT PIN OR A FLASH SUPPRESSOR.

How to Keep CROWS Crowing



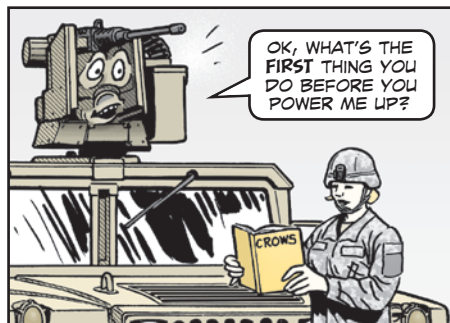
Train, train, train. First of all, no Soldier should be allowed to touch CROWS unless he's passed the 40-hour CROWS course. If your unit needs CROWS instruction, contact TACOM's Gerrit Allen at (973) 724-2243 or email:

gerrit.b.allen.civ@mail.mil

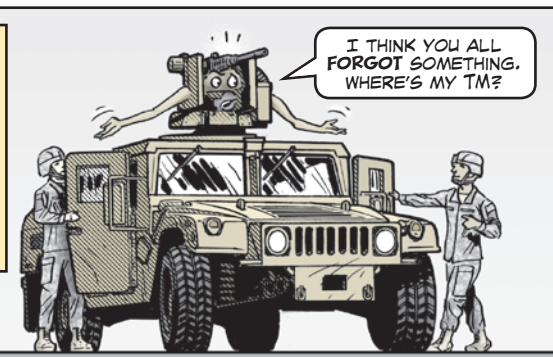
or Jeffrey Fischbach at (973) 724-9024 or email:

jeffrey.s.fischbach.ctr@mail.mil

But if a trained Soldier hasn't operated CROWS in months, he needs a refresher course before he jumps in the operator's seat. The local TACOM LARs or command maintenance training evaluation teams (COMETs) can help with that. Just one CROWS mistake can cost a unit big bucks, so refresher training is well worth the effort.

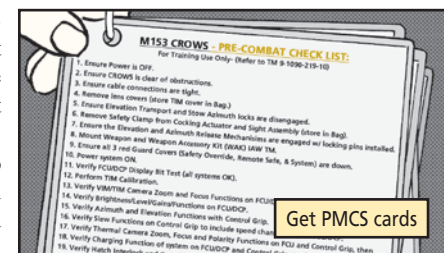


Keep a copy of the CROWS TM 9-1090-219-10 in the vehicle. Most units forget that. Even a well-trained operator will need to consult the TM occasionally.



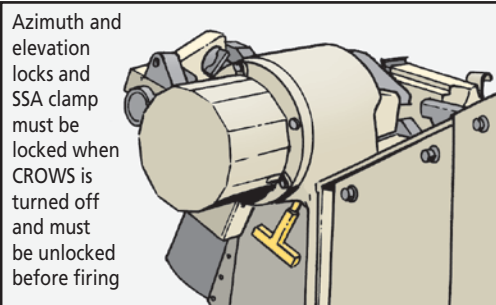
By the way, there are CROWS quick reference cards available that make it easier to PMCS and operate CROWS. Your TACOM LAR can get you the cards.

Use the cards or the -10 TM to do CROWS PMCS. There's no way you can remember all the checks. A good PMCS takes at least 45 minutes.

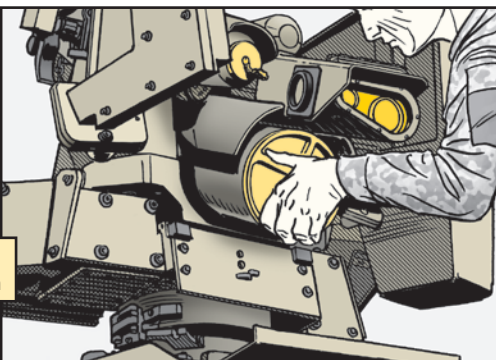


Get PMCS cards

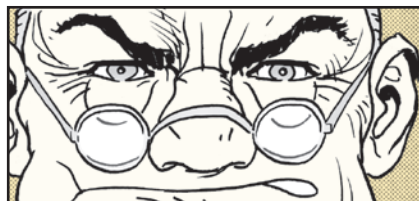
Release all locks before powering up CROWS. If you forget to unlock the azimuth lock it could break and the only fix is to replace the \$45K main frame. If you forget the elevation lock and the sight servo assembly (SSA) clamp, you'll ruin the elevation drive and SSA, which cost roughly \$24K and \$28K.



Don't forget to remove the daylight sight, night sight and laser range finder covers. It's too late when you're under fire. If the covers are left on, your CROWS will be blind.



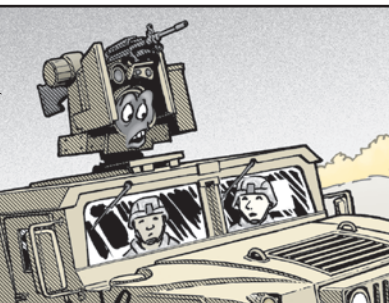
Remember to remove all three covers for operation



STORE THE THERMAL IMAGING MODULE (TIM) COVER IN THE WEAPONS ADAPTATION KIT BAG WHEN YOU'RE NOT USING IT. OTHERWISE, COUNT ON IT DISAPPEARING.

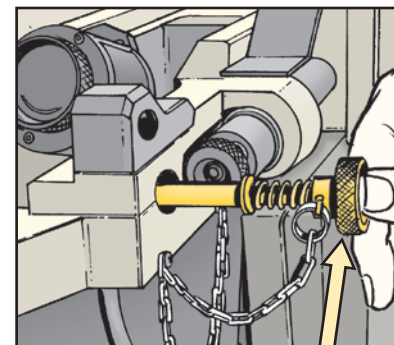
HEY! YOU SELECTED AN M249 BUT WE'RE FIRING M240S TODAY!

Be careful to select the right weapon when firing small caliber machine guns. If you get the M240 and M249 machine guns reversed, the CROWS won't work right.

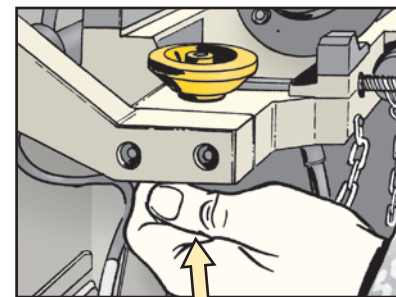


Protect the mounting pins and make sure they're fully inserted. If you leave the pins dangling, they can get caught in the mount and damaged. One broken or bent pin could make CROWS NMC.

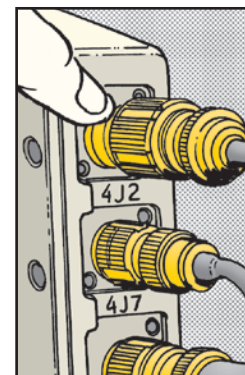
To fully seat a mounting pin, you must rotate it as you push it in. Once both mounting pins are seated, tug on them to ensure they're secure. Then tighten the straining screw for the soft mount. But when it's time to remove the mounting pins, first loosen the straining screw (except for the MK 19). Otherwise, you can't remove the pins.



Rotate mounting pins as you push them in



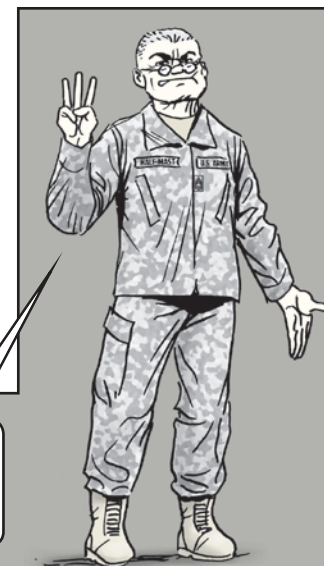
Once mounting pins are secure, tighten straining screw. Before removing mounting pins, you must loosen straining screw



Check all cables for looseness. If just one cable is loose, you'll get faults. Don't use just your eyes to check. Some Soldiers think if they can't see the cable connector's red line, the cable is tight. That's not always true. Feel to make sure each cable is hand-tight.

REMEMBER AT SHUTDOWN TO PUT THE SIGHT COVERS BACK ON. LOCK THE AZIMUTH AND ELEVATION LOCKS, AND PUT THE SSA CLAMP BACK ON.

THAT'S THE BEST PROTECTION YOU CAN GIVE YOUR CROWS.



M240L MWOs Ending Early

THE M240L MACHINE GUN'S MWOs 9-1005-313-23-2 AND 9-1005-313-23-4 REPLACE THE OLD STYLE BUTTSTOCK WITH A COLLAPSIBLE BUTTSTOCK AND THE LONG BARREL WITH A SHORT BARREL. THE MWOs ARE ENDING EARLY.

IF YOUR M240LS **HAVEN'T** BEEN MODIFIED YET, CONTACT ROBERT ARELLANO AT (586) 282-1336, OR EMAIL: robert.larellano.civ@mail.mil OR KELLY DALEY AT (586) 282-1326 OR EMAIL: kelly.a.daley.civ@mail.mil

OR YOU CAN CONTACT YOUR LOCAL MWO COORDINATOR.

MWOs replace buttstock and barrel

M240L original configuration



Old style buttstock

Long barrel

M240L new configuration



New collapsible buttstock

Short barrel

Small Arms... **GOT SPECIAL TOOLS?**

Dear Editor,

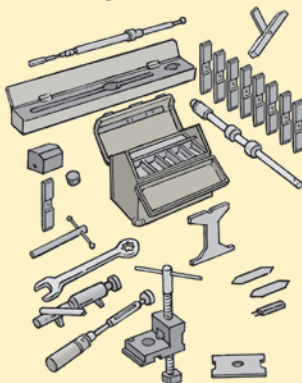
In my role as an armament systems maintenance warrant officer, I visit small arms repair shops. I often see small arms repairmen using the wrong tool for the job because they don't have the special tools required for each weapon. That, of course, means the repair or gaging won't be done correctly.

I recommend every new small arms repairman not only makes sure he has a complete small arms tool kit, but also every special tool and gage required for each weapon. If he's missing any, he can order replacements.

The -23&P for each weapon lists special tools and their NSNs. The M2A1's TM 9-1005-347-23&P, for example, lists 18 tools and gages in Fig 12.

CW2 Ryan Harmon
302nd BSB, 2nd ID
Camp Casey, S. Korea

Editor's note: You can't do your job right if you don't have the right tool. Thanks for the suggestion, Chief.



Mortars...

NEW EROSION GAGE QUICKER, MORE ACCURATE



THIS NEW CANNON BORE EROSION GAGE IS GREAT! IT'S MORE ACCURATE AND CUTS THE TIME REQUIRED BY 60 PERCENT!

To do maintenance on 120mm mortars equipped with the mortar fire control system-dismounted (MFCS-D) you need the new cannon bore erosion gage set, NSN 5280-01-560-1762. See TM 9-1230-205-23&P for the procedure.

Maintenance for the barrel clamp requires precise measurements that only the new cannon bore erosion gage can give.

It's OK to continue to use the old pullover gage set, NSN 4933-00-348-8652, for the semiannual bore diameter measurements of 60mm, 81mm and 120mm mortars not equipped with the MFCS-D. But the new bore erosion gage is much more accurate, plus it cuts the time required by 60 percent.

For more information about the cannon bore erosion gage set, see TM 9-4933-274-23&P or contact Erik Jensen at DSN 786-1220, (586) 282-1220, or email: erik.s.jensen4.civ@mail.mil

M252A1 Mortar Being Fielded

THE ARMY IS FIELDING THE NEW, **LIGHTER** M252A1 MORTAR THROUGH MWO 9-1015-259-23-2 (DEC 14) TO ARMY UNITS ONLY.

THE ONLY PART OF THE OLD M252 THAT CAN STILL BE USED WITH THE M252A1 IS THE **INTEGRATED CANNON**, NSN 1015-01-528-2773.

THE M252A1 WEIGHS 74.8 POUNDS, 12 POUNDS LESS THAN THE M252.



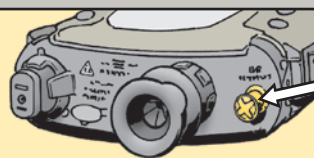
THE MORTAR'S ID CAN BE VERIFIED BY THE SERIAL NUMBER LOCATION AND PART NUMBER (12901300), WHICH ARE ENGRAVED ON THE CANNON DIRECTLY ABOVE THE COOLING FINS.

Test IR Switch

REPORTS ARE COMING IN FROM THE FIELD THAT THE IR ADJUST SWITCH FOR THE AN/PED-5 LASER TARGET LOCATOR MODULE (LTLM) IS SOMETIMES FAILING.

THAT'S WHY YOU NEED TO MAKE A POINT TO **CHECK** THE SWITCH **BEFORE** YOU GO TO THE FIELD FOLLOWING THE PMCS IN TM 9-1240-455-10.

IF THE SWITCH **DOESN'T** ADJUST THE THERMAL IMAGE, TURN IN THE AN/PED-5 FOR REPAIR.



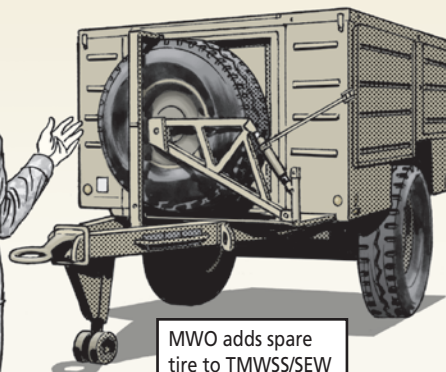
Test IR adjust switch during PMCS

QUESTIONS?

CONTACT TERRY MONROE AT (703) 704-1067 OR EMAIL: terry.l.monroe2.ctr@mail.mil OR ENGELS ARIAS AT (586) 282-1230 OR EMAIL: engels.d.arias.civ@mail.mil

Does Your TMWSS/SEW Need a Spare Tire?

IF YOUR TRAILER MOUNTED WELDING SHOP SET (TMWSS)/SHOP EQUIPMENT, WELDING (SEW) NEEDS A SPARE TIRE, THEN THERE'S AN MWO JUST FOR YOU.



MWO adds spare tire to TMWSS/SEW

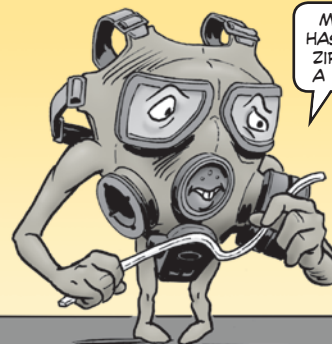
MWO 9-4940-567-50-1 ADDS **TWO KITS**: SPARE TIRE SUPPLEMENTAL KIT, NSN 2590-01-587-6333, AND SPARE TIRE KIT, NSN 2590-01-578-5628.

THE MWO SHOULD BE DONE THROUGH YOUR LOCAL MWO COORDINATOR.

THE TMWSS/SEW IS COVERED BY TM 9-4940-567-13&P (OCT 03, W/CH 2, APR 10).

QUESTIONS? CONTACT TACOM'S ROBERT CLINE AT (586) 282-1650 OR EMAIL: robert.l.cline24.civ@mail.mil

Solutions for Expired MWOs



MY ZIP TIE HAS **LOST** ITS ZIP! I NEED A NEW ONE.

UH-OH! THAT MWO EXPIRED A LONG TIME AGO. I **DON'T** KNOW WHERE TO GET A NEW ONE.

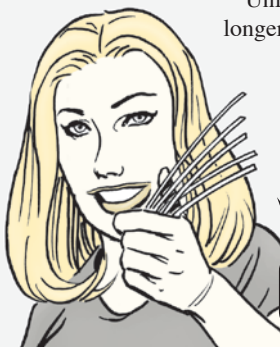


MWO 3-4240-346-20-1 applied a retaining clamp (zip tie) to the M40/M42 mask to prevent the silicone rubber from separating from the outlet valve housing.

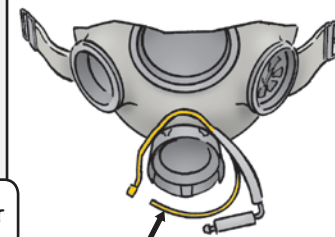
MWO 3-4240-346-20-2 replaced the outlet valve disk with an improved disk that minimizes the chance of the disk collapsing into the outlet valve housing during extreme negative pressure checks.

Unfortunately, those MWOs expired years ago and the Army no longer supports them.

That's a real problem in the case of the zip ties. Many of them have worn out and need replacing. CBRN specialists have two choices:



BUY NEW ZIP TIES AND TOOL OR JUST GET A NEW FACEPIECE.



Zip tie

- Order the clamp installation tool for \$359 at: <http://www.newark.com>

In the SEARCH box, type 78F547 and click **FIND**.

Before spending that kind of money, though, check with other CBRN rooms and see if they have the tool.

To get 1,000 clamps for \$72, go to: <http://www.digikey.com>

In the Part Search box, type 298-1045-ND and click the **GO** button.

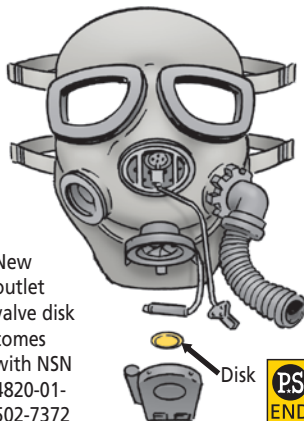


Even if you have only a few masks that need the clamps, you'll find it's a lot more cost-effective to order the tool and clamps than ordering new facepieces:

- **small**, NSN 4240-01-415-4517, \$252
- **medium**, NSN 4240-01-415-4518, \$247
- **large**, NSN 4240-01-416-0430, \$248

What you should **never** do is try to replace the clamps with ones you find locally. Only the Digi-Key clamps have been tested for strength and durability.

Things are simpler for MWO 3-4240-346-20-2. If the outlet valve disks in your masks are green, you already have the new disks. If they aren't, order the disk with NSN 4820-01-502-7372.



M50/M51
Masks...

NO CARDS IS A LOSING HAND!

UH-OH! MY
OPERATOR
CARDS ARE
GONE!

TALK
ABOUT A
LOSING
HAND.

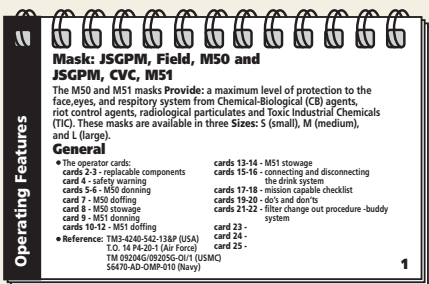


Ananything that comes with your M50/M51 joint service general purpose mask (JSGPM) needs to stay with the mask.

The M50/M51 operator cards, NSN 7690-01-529-1398, make it easier to PMCS and use your mask.

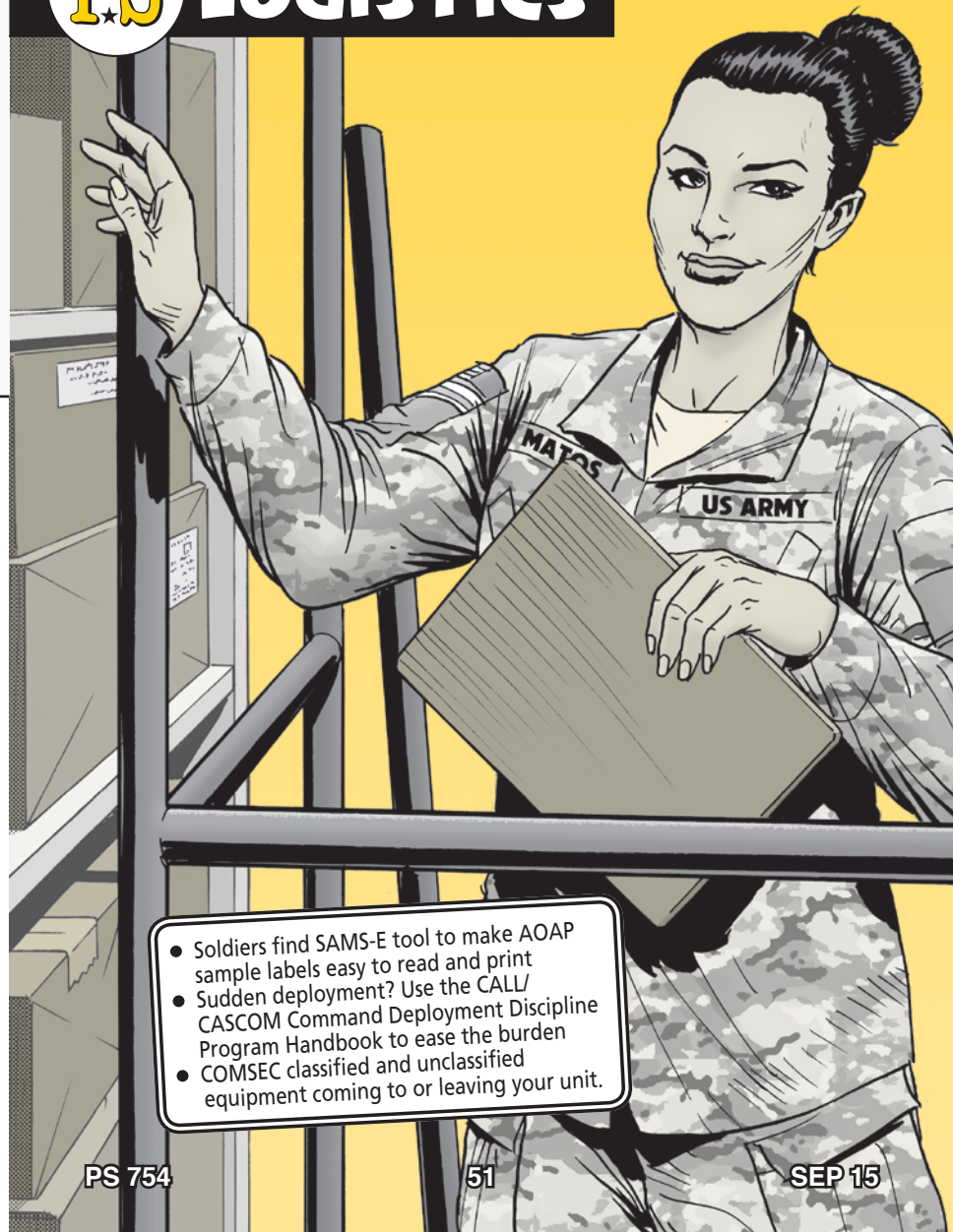
Also make a point of keeping the mask's water-proofing bag, NSN 4240-00-377-9401, and faceform, NSN 4240-01-529-8338. Without the water-proofing bag, your mask has less protection from moisture. The faceform is required for long term storage.

Operator cards missing?



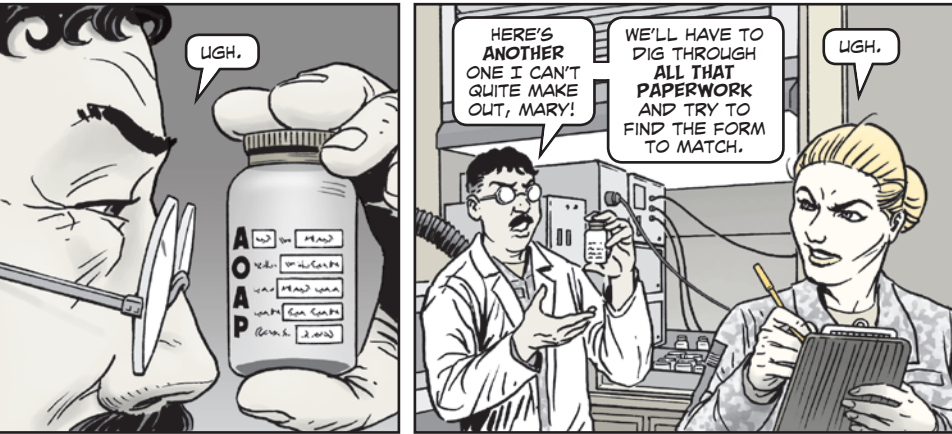
PS

LOGISTICS



- Soldiers find SAMS-E tool to make AOAP sample labels easy to read and print
- Sudden deployment? Use the CALL/CASCOM Command Deployment Discipline Program Handbook to ease the burden
- COMSEC classified and unclassified equipment coming to or leaving your unit.

AOAP Labels Save Time, Improve Tracking



Dear Editor,

I've figured out a big time saver for unit AOAP monitors. There's a tool built into SAMS-E that generates reports that can be exported into Microsoft® Excel. I use this tool in combination with a mail merge in Microsoft® Word to create custom labels for our AOAP sample bottles. This saves countless hours of work. I've included a step-by-step guide here in case you want to share it with your readers.

SSG Kent M. Bailey
FMS-3 Production Controller
Sedro-Woolley, WA

Editor's note: Nicely done, Sergeant. We asked AOAP PM to evaluate your idea. They gave it a thumbs-up and added: "The first step unit AOAP monitors take to ensure AOAP accuracy is making sure that DA 5991-E, Oil Analysis Request Form, contains complete and accurate data. The second essential step is filling out the information fields on the AOAP sample bottles.

"Often the DA 5991-E is packed separately from the sample bottles. AOAP lab personnel must read the info on the sample bottles and match them up with the correct paperwork. However, too often the writing on the AOAP bottles is illegible.

"Preprinting labels and attaching them to the sample bottles (as in SSG Bailey's suggestion) eliminates this problem. Using preprinted sample bottle labels also speeds up sample prep time and provides better traceability of the samples and paperwork in the lab."

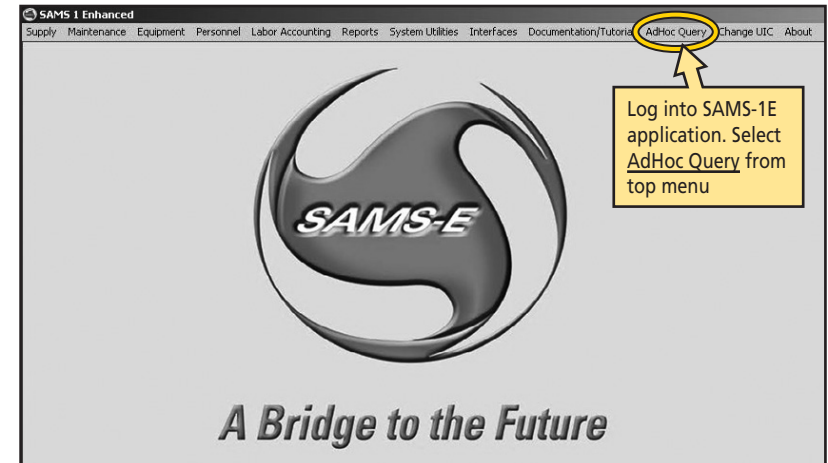
Here are Sergeant Bailey's instructions for making custom AOAP sample bottle labels:

Create SAMS-E AdHoc Query

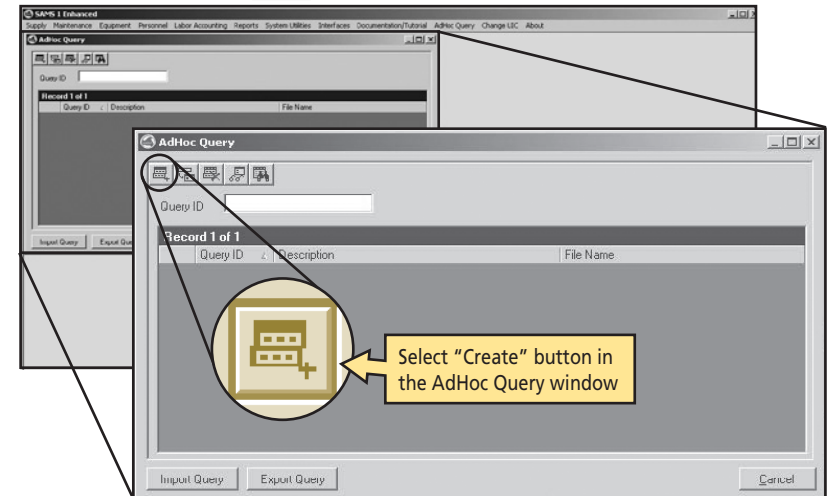
(SSG Bailey notes, "You only need to do this step once because you save this query in SAMS-E.")

Total time: Less than 5 min.

1. From SAMS-1E main menu, click on AdHoc Query at top of screen.



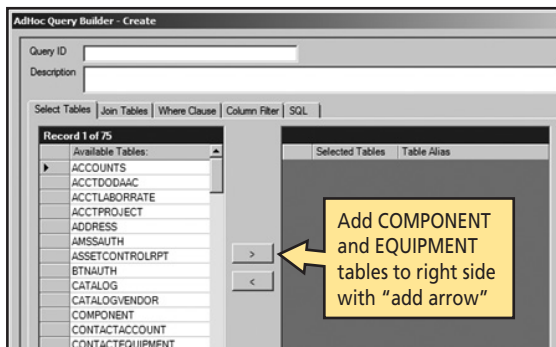
2. On AdHoc screen, click Create button.



3. Enter a name of choice for the labels.

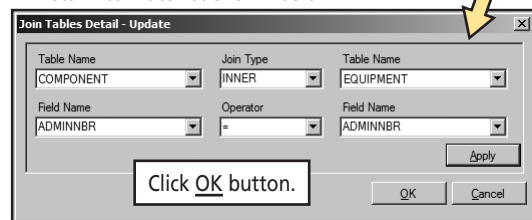
- From left-side menu, add two tables: COMPONENT and EQUIPMENT.

In Query ID block, enter query name of choice. Scroll down available tables list on Select Tables tab.



- Click on the "Join Tables" tab.
- Click Create, then set up "Join Tables Detail" to match as shown below.

Join COMPONENT and EQUIPMENT tables as shown



- Click on the "Column Filter" tab.

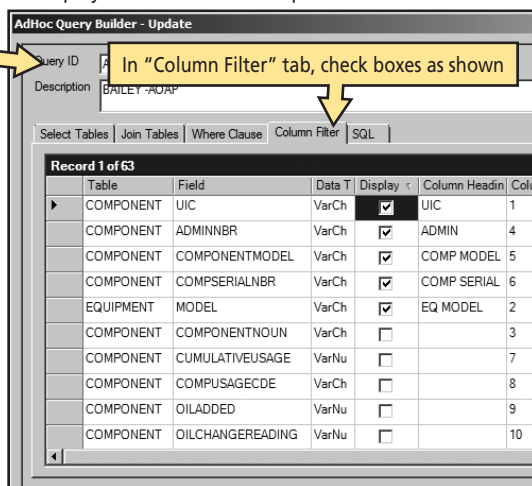
- Deselect all the boxes in the display to make the next steps easier.

- Select fields shown here.

- Update the column heading.

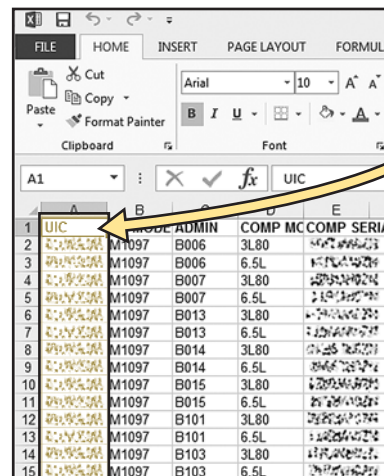
- SSG Bailey notes: "It's not mandatory to put numerals in the ADMINNBR Sort Order field (as shown here), but printing the labels in an ADMIN sequence saves time."

- To save the query, click the "save" button. The query saves in the SAMS-E default location.



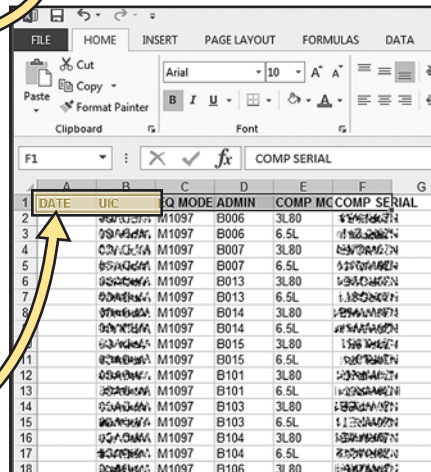
Create AOAP Sample Bottle Labels

- Press the "Execute Query" button to run the SAMS-E AdHoc Query you just made. Click the "Save" button and save results wherever you want. Just remember where you put them.
Note: Mail merge saves in the same location as the query, so you may want to create a folder named "AOAP UIC XXXXXX" (substitute your unit's UIC for the Xs) on your desktop or doc folder.



- Open the saved AdHoc Query in Microsoft® Excel.

- Left-click Column A to highlight it.



- Right-click and choose "Insert" to add a new Column A.

- In Block A1, type "DATE".

- In Block A2, do one of the following three options:

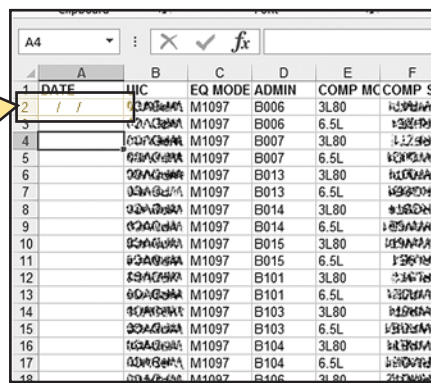
- Hit spacebar 4x, then type "/", hit spacebar 3x, then type "/", hit spacebar 10x.

OR

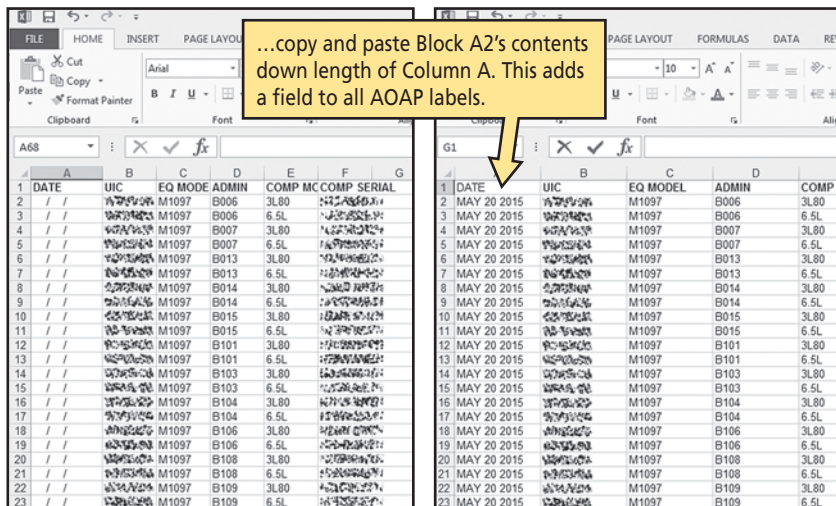
- Type date (for example, FEB XX, 201X).

OR

- Leave blank with 18 space-bar spaces. This leaves enough room on labels to use a manual date stamper.



7. Whichever option you pick in Step 6...



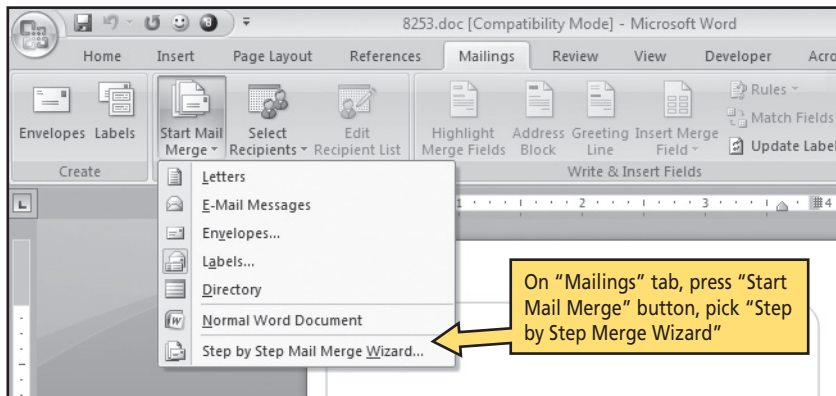
8. Save the file in Excel 2007 or 2013 format.

9. Close the Excel document.

10. Download the free Avery® template for Microsoft® Word 8253 labels (shipping label, 10 per sheet, 2x4") from: http://www.avery.com/avery/en_us/Templates-&Software (Note: You'll need to register at the website the first time and temporarily disable the popup blocker in your browser to download the template.)

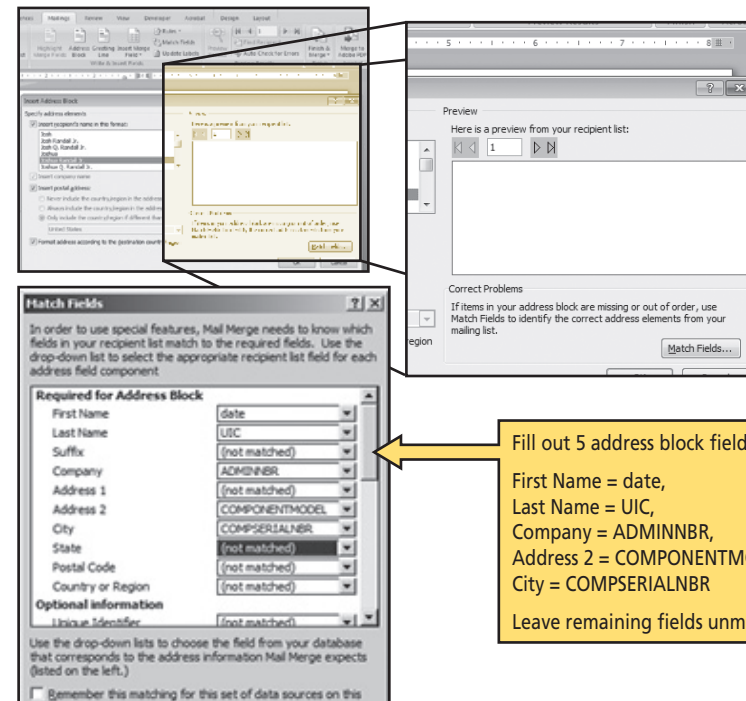
11. In Microsoft® Word, open the 8253 template that you downloaded.

12. Choose "Mailings" tab in Word, find "Start Mail Merge" tab and choose bottom option, "Step by Step Mail Merge Wizard."



13. In the mail merge options under "Select recipients," choose the "Use existing list" radio button and navigate to your Excel document. Choose "Open." Make sure that "First row of data contains column headers" is checked. Click the **OK** button.

14. Choose "Address Block" in top menu, then "Match Fields" as shown in example.



15. Check preview pane. If successful, it should look like the image shown. If it does, click on **OK**. If not, make corrections, click and match fields again.

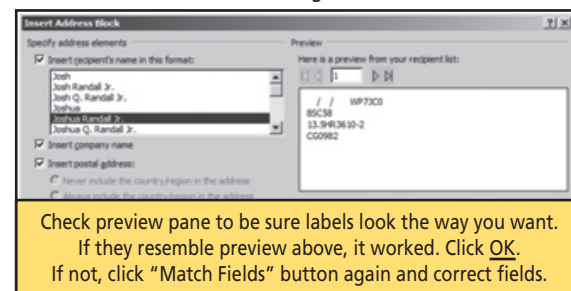
16. Click on **Update All Labels**.

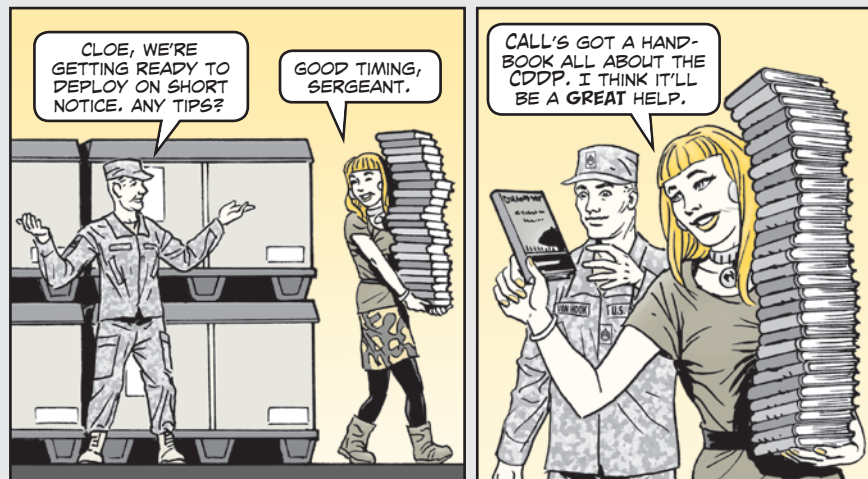
17. Complete the merge.

18. Print. You can use "8253" labels or plain paper.

19. Save label file as "AOAP UIC DATE" or another name as desired.

20. If using plain paper, cut out labels and tape to AOAP sample bottles.





THE CENTER FOR ARMY LESSONS LEARNED (CALL), IN CONJUNCTION WITH THE COMBINED ARMS SUPPORT COMMAND (CASCOM), OFFERS A HELPFUL HANDBOOK COVERING THE COMMAND DEPLOYMENT DISCIPLINE PROGRAM (CDDP).

COMMAND DEPLOYMENT DISCIPLINE PROGRAM (DEC 14) WAS DESIGNED TO SPECIFICALLY SUPPORT DEPLOYMENT READINESS GOALS.



The CDDP highlights:

- Establishing deployment discipline as regulatory guidance.
- Standardizing deployment discipline requirements for units and installations.
- Improving efficiency and effectiveness at the tactical unit level for deployment and redeployment operations.
- Maintaining unit-level fundamentals for deployment and redeployment operations.

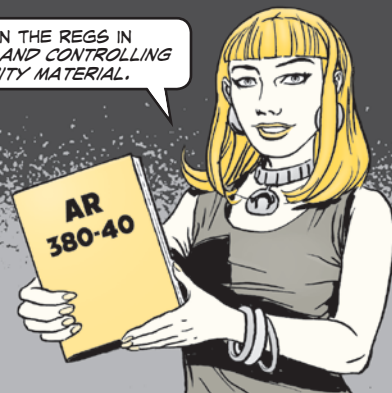
The handbook addresses these areas by covering doctrinal and regulatory tasks, Army standards and fundamentals of equipment movement. Tasks from division to company level, including installation tasks, are also covered. It even includes helpful checklists.

To view or download the handbook (No. 15-01) or other CALL products, grab your CAC and visit:

<https://call2.army.mil/>

BE SURE TO BRUSH UP ON THE REGS IN AR 380-40, SAFEGUARDING AND CONTROLLING COMMUNICATIONS SECURITY MATERIAL.

Ins and Outs of Classified & Unclassified COMSEC Equipment



TB 380-41 IS **ANOTHER** FOLIO PUB THAT AUTHORIZED PERSONNEL CAN ACCESS THROUGH LOGSA'S ETM WEBSITE AT <https://www.logsa.army.mil/etms/>

TB 380-41



Classified COMSEC Equipment

Property book officers (PBOs) are not authorized to directly order classified COMSEC equipment through traditional supply channels. All COMSEC equipment (items with controlled inventory item codes [CIICs] of C, D, E, F, S or T) must be requisitioned by the COMSEC Account Manager. For more info, including equipment training, visit the CSLA website at: <http://csla.army.mil/>

Got classified COMSEC questions? Contact the Communications Security Logistics Activity (CSLA) at 1-800-662-2123, or email: csla.huac.csc@mail.mil

Unclassified COMSEC Equipment

The process is different for ordering Controlled Cryptographic Items (CCIs) (items with CIIC of 9) or Cryptographic High Value Products (CHVPs) (items with CIIC of 7).

CCI/CHVP requisitions should go through unit PBOs to maintain equipment visibility from the time of receipt until disposal. CSLA has a special website for CCI/CHVP orders. PBOs can go to the Army's Information Systems Security Program (ISSP) website: <https://issp.army.mil>

Once registered, PBOs can upload a copy of their appointment orders to the website and follow the instructions there.

For unclassified COMSEC equipment help, contact CSLA's ISSP customer support at DSN 879-1829, (520) 538-1829, or email: csla.huac.issp@mail.mil



Connie's POST SCRIPTS



HEMTT A4 Universal Service Kits

If you've ordered the HEMTT A4's universal annual service kit, NSN 4910-01-619-4329, in the past several months, you may have noticed a few items missing. Get those missing parts by calling Oshkosh's Alyssa Raymond at (920) 235-9151, extension 25519. She'll send you a Delta kit that includes the missing gasket (PN 9HR358) and two O-rings (PNs 19KP363 and 9HR356). The deadline for requesting the Delta kit is 16 Dec 15.

HEMTT A4 Universal Service Kit

The new HEMTT A4 universal service kit now comes with NSN 4910-01-619-4329. But if you have the M985A4 HEMTT guided missile transporter (GMT), you'll also need two additional kits for annual services: NSNs 4910-01-619-4329 and 4910-01-619-4330.

The Scoop on HMMWV Batteries

Page 11 of PS 749 (Apr 15) and Page 61 of PS 753 (Aug 15) said the only battery authorized for the HMMWV is the 6TMF, NSN 6140-01-446-9498. That battery is safe and what your TMs say to use. However, if your vehicle is already using the 6TAGM (absorbed glass mat) Hawker or Exide battery, NSN 6140-01-485-1472, don't change them out just yet. TACOM is testing the Hawker and Exide batteries to determine if they cause any problems with the HMMWV's electrical system. Until the results are in, continue using Hawker and Exide 6TAGM batteries that are already installed in your HMMWV.

M871A3 Semitrailer Clearance Light

Get the amber clearance light, including the base, for your M871A3 semitrailer with NSN 6220-01-595-4730 (PN 4337A). NSN 6220-01-499-3374 (PN M165A-MV), which is shown as Item 2 in Fig 2 of TM 9-2330-326-14&P (Feb 06), brings the LED light without the base. Make a note until the TM is changed at the next update.

CH-47F CARC Paint Touch-up Kits

After performing a modification work order (MWO) on your CH-47F, it's often necessary to do a little touch-up work to the aircraft's paint. Woodland desert sage (Fed std 34201, MIL-DTL-64159) CARC is available as a two-component kit (Type II) or as a self-contained portable touch-up kit (Type III):

Type	Size	NSN 8010-
II	3-qt kit	01-580-7175
III	30-ml cartridge	01-596-7845
III	450-ml cartridge	01-596-7861
III	900-ml cartridge	01-596-7853

M1101/M1102 SHOCK ABSORBER KIT

A shock absorber kit for the M1101 and M1102 trailers comes with NSN 2510-01-554-1785. The kit includes two shock absorbers and four locknuts for installation. The kit replaces NSN 2510-01-190-3862, which is shown as Item 6 in Fig 14 of TM 9-2330-392-13&P (Dec 12). That NSN is a terminal item.

A1P2 FMTV ELECTROMAGNETIC RELAY NSN

Get a new electromagnetic relay for your A1P2 model FMTV with NSN 6110-01-428-8915. It replaces NSN 5945-01-570-7989, shown as Item 18 in Fig 118 of TM 9-2320-333-14&P (Jun 12). The old NSN is a terminal item.

NEW LASER RANGE FINDER MAY HAVE WRONG MANUAL

Some units who received the new Model 1600 laser range finder (LRF), NSN 1240-01-620-2111, may have gotten the commercial manual for the old Model 1500, NSN 1240-01-562-9459. If that's happened to you, it's OK to keep using the Model 1600. Just remember the standard warnings about using a laser. If you didn't get the correct manual, contact Veronica Cook at DSN 786-1263, (586) 282-1263, or email: veronica.l.cook4.civ@mail.mil or Matt Williams at DSN 786-1274, (586) 282-1274, or email: matthew.w.williams21.civ@mail.mil

Turn In MLRS Unserviceable IEDBs

Have an unserviceable improved electronic distribution box (IEDB), NSN 6110-01-463-3913, for your MLRS carrier? Improve combat readiness and earn a \$21,660 unserviceable credit by turning it in immediately.

GCSS-Army Reminder

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

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

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

PARTS CLEANING CAN

Get a bench-type safety can with NSN 4940-00-684-0580. It's good for cleaning small parts. The can stands 6³/₄ inches tall and 11³/₄ inches wide. It holds up to two gallons of cleaning solvent and comes with side handles and a hinged lid. Appendix A of CTA 50-970 is your ordering authority.

BHL Alternator Impeller Fan NSN

Get a new alternator impeller fan for your backhoe loader (BHL) with NSN 4140-01-562-3619. It replaces NSN 2930-01-549-3106, which is shown as Item 5 in Fig 39 of TM 5-2420-231-24P (Jul 13). That NSN gets the wrong part.

MLRS Rearview Mirror NSN

Get a rearview mirror for your MLRS with NSN 2540-01-612-5318. It replaces NSN 2540-01-114-7652, which is shown as Item 11 in Fig 155 of TM 9-1450-646-24P (Jul 07).

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

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

Want to
LIGHTEN
YOUR
LOAD?

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