

Issue 772

# PS

★  
March  
2017

## THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-772

Approved for  
Public Release;  
Distribution is  
Unlimited



STRYKER!  
WE'RE PUTTIN'  
YOU IN THE  
AOAP GAME!

NOW GET OUT  
THERE AND SHOW  
US WHAT YOU'RE  
MADE OF!

OH BOY,  
FINALLY!

READ MORE ABOUT  
AOAP ON PAGES 6-8!

## COMBAT VEHICLES

M113A3 FOV Hull Draining  
M113-Series FOV Ramp Cable PM  
Stryker AOAP Enrollment



## TACTICAL VEHICLES

FMTV, M142 HIMARS Loose Starter Bolts  
HMMWV Load Range D and E Tire Guidance  
HMMWV Alternator Components  
POL Products Guide



## CONSTRUCTION EQUIPMENT

MELs for Construction Equipment



## AVIATION

UH/HH-60A/L/M, Authorized MEDEVAC Devices  
UH-72A Lakota Deck Damper Installation  
UH/HH-60M Dynamic Rollout Prevention  
NAVSOLVE Approved for Cleaning

## SMALL ARMS

M16-Series Rifle, Repair, Don't Replace, BUIS  
Small Arms Gaging Pubs  
MK19 Machine Gun TM Ammo Loading Fix  
M249 Machine Gun Gas Assembly Scraper NSN

## MISSILES

Patriot PM Tips



## CBRN

AN/PSS-14 Mine Detector Advice  
JACKS the Source for CBRN Answers



## COMMUNICATIONS

150-kW Generator Service Kits  
Lithium Battery Air Shipment Rules  
JBC-P Keyboard Replacement  
840-kW TQGs Added to AOAP  
Night Vision Goggles Protective Pouch



## SOLDIER SUPPORT

Unit Patches for OCP Uniforms  
Combat Application Tourniquet (CAT) Updated  
PS Mag Live  
PS Magazine Info Is Official, But Optional  
COSIS Inspections Vital to Readiness

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PS, The Preventive Maintenance Monthly (ISSN 0475-2953) is published monthly by the Department of the Army, Redstone Arsenal, AL 35898. Periodical postage is paid at the Huntsville, AL post office and at additional mailing offices. Postmaster: Send address changes to PS, The Preventive Maintenance Monthly, USAMC LOGSA (AMXLS-GP), Bldg. 3303, Redstone Arsenal, AL 35898.

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

Just write to:

MSG Half-Mast  
PS, the Preventive Maintenance Monthly  
USAMC LOGSA (AMXLS-GP)  
Bldg. 3303  
Redstone Arsenal, AL 35898

Or email:

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

Internet address:

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

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1634804



# Buyer Beware!

TODAY, YOU CAN BUY IMITATION MILITARY GEAR FROM ARMY SURPLUS STORES, SPORTING GOODS STORES, CATALOGS AND WEBSITES.

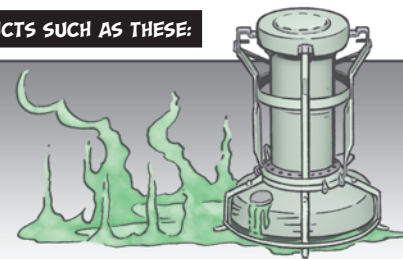
THOUGH SOME PRODUCTS MAY LOOK LIKE AUTHENTIC ARMY ISSUE, CHANCES ARE THEY DON'T MEET ARMY STANDARDS.

THEY MAY NOT WORK AS WELL OR LAST AS LONG. THEY MAY EVEN POSE A HEALTH OR SAFETY HAZARD.

## BEWARE OF PRODUCTS SUCH AS THESE:

COMMERCIAL HEATERS, INCLUDING UNVENTED KEROSENE OR PROPANE HEATERS.

THEY DON'T MEET ARMY SPECS. SOME MODELS EMIT CARBON MONOXIDE GAS THAT CAN KILL YOU. SOME TEND TO LEAK OR TIP OVER. CHOOSE INSTEAD A HEATER FROM THE FAMILY OF SPACE HEATERS (FOSH).



## EYEWEAR NOT APPROVED BY THE ARMY.

EVEN IF IT'S A WELL-KNOWN BRAND, IT WON'T OFFER THE PROTECTION A COMBAT SOLDIER NEEDS. GO ONLINE TO PROGRAM EXECUTIVE OFFICE (PEO) SOLDIER FOR THE AUTHORIZED PROTECTIVE EYEWEAR LIST (APEL). ALL EYEWEAR ON THE APEL OFFER BALLISTIC FRAGMENTATION AND ULTRAVIOLET PROTECTION:

<http://peosoldier.army.mil/equipment/eyewear/>



## "KNOCK-OFF" ARMY UNIFORMS.

THEY MAY LOOK LIKE THE REAL THING, BUT THEY'RE FAKE. BECAUSE THEY DON'T MEET ARMY SPECS, THEY MAY NOT MEET APPEARANCE OR DURABILITY STANDARDS. SEAMS MIGHT FAIR, FABRIC RIP, OR COLORS FADE. WHEN THE KNOCK-OFFS WEAR OUT, THE ARMY ISN'T OBLIGED TO SUPPORT OR EXCHANGE THEM. YOU'RE BETTER OFF GETTING A GENUINE UNIFORM THROUGH ARMY SUPPLY CHANNELS.



## SO STEER CLEAR OF PRODUCTS THAT DON'T HAVE ARMY APPROVAL.

THEY'RE USUALLY INFERIOR AND DON'T PASS MUSTER. OFTEN THEY'RE NOT SUPPORTED WITH TMS, REPAIR PARTS, MAINTENANCE PROCEDURES OR PMCS.

**NOW THAT'S ENOUGH TO MAKE ANY BUYER BEWARE!**





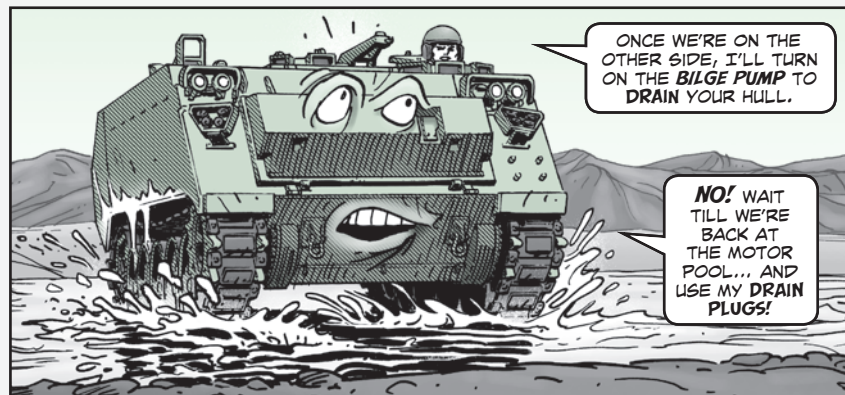
# COMBAT VEHICLES

- Drain Away Hull Water
- Ramp Up Cable PM!
- Don't Delay! Enroll in AOAP Today!



M113-Series  
FOV...

## DRAIN AWAY HULL WATER



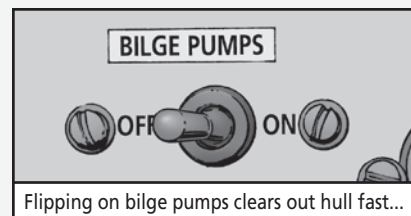
**W**ater collecting in the hull of your M113A3 is gonna happen, especially when it rains or during fording. Question is, how do you drain it?

**Don't** use the bilge pumps. A lot of drivers do it that way 'cause all they have to do is just flip the bilge pump switch, wait a few minutes and all that water is gone. It's the easy way but also the **wrong** way.

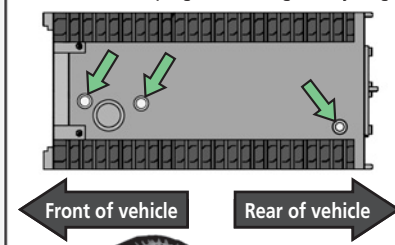
Problem is that nasty stuff like fuel, grease and antifreeze mix with the water to create a cocktail of hazardous material. And as soon as you flip the bilge pump switch, all that gunk ends up on the ground. That's very bad for the environment!

The right way is to use the hull drain plugs—two at the front and one at the back. Just make sure you do it back at the motor pool by the oil/water separator at the wash rack. That'll take care of the HAZMAT problem.

Putting a tarp over your vehicle when it's parked will keep a lot of the water out of the hull in the first place.



...but hull drain plugs are the **right** way to go





# RAMP UP CABLE PM!

WH-WHAT'S  
GOING ON? WHY  
ARE THERE SO  
MANY M113S  
HERE?

WE'RE ALL NMC HERE  
BECAUSE OUR CREWS DIDN'T  
TAKE THE TIME TO DO PM ON  
OUR RAMPS' WIRE ROPES!

Dear Half-Mast,  
As a mechanic, I see a lot  
of M113-series vehicles with  
ramp problems because  
their crews don't do PM on  
the ramp cable. What's the  
best way to take care of  
those cables so our ramps  
keep working?

SSG B.A.E.



A FRAYED, BROKEN  
OR WORN OUT RAMP  
CABLE IS **DEFINITELY**  
BAD NEWS, SERGEANT,  
'CAUSE A RAMP THAT  
**CAN'T** BE RAISED OR  
LOWERED MEANS THE  
VEHICLE IS NMC!

WHEN THE RAMP IS  
COMPLETELY RAISED,  
THE CABLE RETRACTS  
UNDER THE FLOOR  
PLATES.

ANY WATER THERE  
**SOAKS** THE CABLE  
AND **WASHES AWAY**  
ITS LUBRICATING  
GREASE.

DIRT AND MOISTURE  
CLING TO THE WIRE  
STRANDS AND  
GIVE CORROSION A  
**FOOTHOLD.**

YOU CAN PUT  
A **QUICK STOP**  
TO THAT BY  
GIVING THE  
CABLE A **GOOD**  
**CLEANING** EVERY  
SIX MONTHS OR  
1,500 MILES.

YOU **MAY** NEED  
TO CLEAN  
**MORE OFTEN** IF  
YOU'RE IN AN  
AREA WITH HIGH  
HUMIDITY.

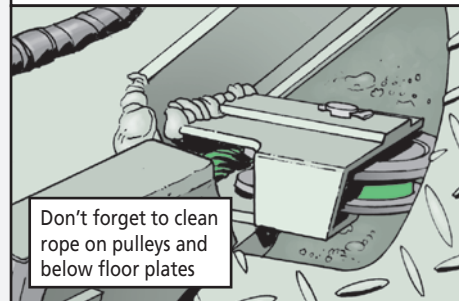
HERE'S  
HOW TO  
DO IT...

1. With the ramp in the fully open position, use a **general purpose scrub brush and cleaning compound**, NSN 6850-00-227-1887, to clean the cable. Give it a good, hard brushing in the direction of the wire strands to remove dirt and debris.



Never use a wire brush to clean the ramp's cable. A wire brush will destroy the protective galvanized finish on the wire strands. Rust will rear its ugly head soon after.

2. Raise and lock the ramp. Clean the remaining portions of the cable from inside the vehicle. Again, use a general purpose brush and cleaning compound to do the job  
Make sure you clean all of the cable, including what's wrapped around the pulleys and hidden underneath the floor plates.



Don't forget to clean  
rope on pulleys and  
below floor plates



MAKE SURE  
TO ALSO  
KEEP THE  
HULL UNDER  
THE FLOOR  
PLATES  
CLEAN AND  
DRY.

3. Wear leather gloves to protect your hands as you dry the cable. Using a wiping rag, make sure you wipe in a spiraling motion, following the direction of the strands to remove all the cleaning compound. The cable should be completely dry when you're done.
4. With the ramp fully open, and again with the ramp in the closed and locked position, give the cable a light coat of CW-II (chain, wire rope and exposed gear grease). Get a 10-lb can with NSN 9150-01-534-7828 or a 35-lb can with NSN 9150-00-530-6814.
5. Wipe off any excess CW-II with a clean wiping rag.

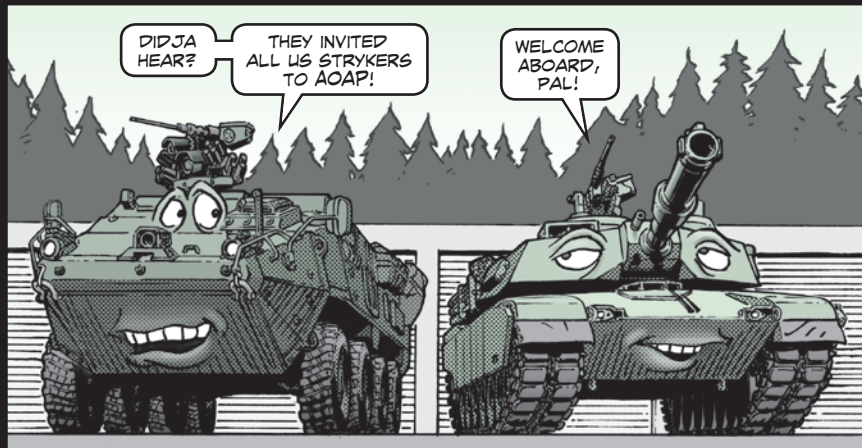


WHAT A RELIEF!  
IT WAS ALL JUST  
A **BAD DREAM!**



OR  
**WAS**  
IT!?

# Don't Delay! Enroll in AOAP Today!



IN CASE YOU HAVEN'T HEARD, STRYKERS HAVE JOINED THE ARMY OIL ANALYSIS PROGRAM (AOAP) CLUB!

UNITS ARE NOW **REQUIRED** TO PULL OIL SAMPLES FROM STRYKER ENGINES AND TRANSMISSIONS ON A **REGULAR** BASIS.

SAMPLES FROM THE CATERPILLAR C7 AND CATERPILLAR 3126 ENGINES ARE NEEDED EVERY SIX MONTHS OR 3,000 MILES, WHICHEVER COMES FIRST. THE TRANSMISSION SAMPLE INTERVAL IS ONE YEAR OR 6,000 MILES, WHICHEVER COMES FIRST.

Use AOAP sampling bottles **ONCE** and **don't** substitute



DRAWING AN AOAP SAMPLE TAKES JUST A LITTLE TIME AND EFFORT. BUT IT CAN HELP **SAVE** EQUIPMENT, HOURS OF MAINTENANCE DOWNTIME, AND POTENTIALLY LIVES.

AOAP **ALSO** GIVES COMMANDERS VITAL INFORMATION ABOUT THE CONDITION OF THEIR UNIT'S EQUIPMENT AND QUALITY OF MAINTENANCE SERVICES.

CHECK OUT

**AR 750-1,**  
Army Material  
Maintenance Policy  
(Sep 13)

SEARCH FOR AR 750-1 AT THE APD WEBSITE:

<http://www.apd.army.mil/>

Don't reuse  
tubing!

THE TB WALKS YOU THROUGH HOW TO TAKE SAMPLES, CORRECTLY COMPLETE FORMS AND ANSWERS MANY FAQs.

YOU CAN ALSO ACCESS AOAP INFO THROUGH LOGSA'S LOGISTICS INFORMATION WAREHOUSE (LIW):  
<https://liw.logsa.army.mil>

AND

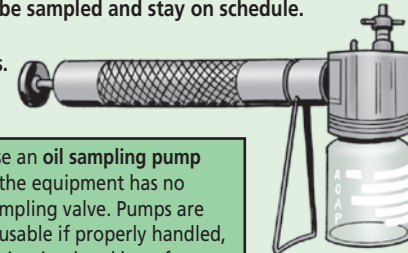
**TB 43-211,**  
AOAP Army Oil Analysis  
Program Guide For  
Leaders and Users  
(Apr 10).

FOR MORE INFORMATION

YOU CAN GET TB 43-211 AT THE LOGISTICS SUPPORT ACTIVITY'S (LOGSA) WEBSITE:  
<https://www.logsa.army.mil/etms>

IF YOU'RE TASKED TO BE YOUR STRYKER UNIT'S AOAP MONITOR, **MAKE SURE YOU:**

- know when and what equipment is to be sampled and stay on schedule.
- **follow safety procedures.**
- draw reliable, uncontaminated samples.
- fill out forms completely, clearly and correctly.
- mail or deliver samples and paperwork immediately.
- follow lab recommendations for re-sampling and maintenance.
- give the lab feedback when requested.
- keep accurate records.



Use an oil sampling pump if the equipment has no sampling valve. Pumps are reusable if properly handled, maintained and kept free of contamination.

- keep a 90-day supply of the following AOAP sampling supplies on hand:

Item	NSN	Qty
Oil sample bottle with cap	8125-01-082-9697	120
Sampling pump, 43mm	4930-01-119-4030	1
Nonmetallic tubing, 1/4-in diameter	4720-00-964-1433	1000
Shipping sack, 6x10 inches	8105-00-290-0340	250
Oil sample bottle mailer kit	8125-01-193-3440	24





- Equipment TMs for reference, including AOAP TB 43-0211
- DD Form 2026, *Oil Analysis Request* (manual form), unless using automated DA Form 5991-E in SAMS-E/GCSS-A or ULLS-AE
- Nitrile gloves to prevent sample contamination and to protect hands from hazardous fluids:

Size	NSN 8415-	Qty
Small	01-492-0176	100
Medium	01-492-0179	100
Large	01-492-0178	100
X-Large	01-492-0180	100

- Clean cloths or rags

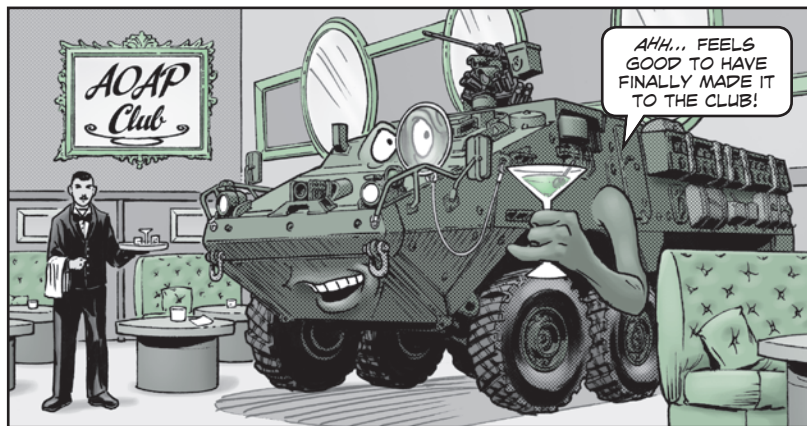
PM AOAP OFFERS DETAILED MONITOR TRAINING THAT COVERS ALL SAMPLING STEPS, FROM TAKING SAMPLES TO CORRECTLY COMPLETING AND SUBMITTING FORMS.

TO REQUEST TRAINING, CALL THE AOAP HOTLINE AT DSN 645-0866, (256) 955-0866, OR EMAIL: [usarmy.redstone.logsa.mbx.aoap@mail.mil](mailto:usarmy.redstone.logsa.mbx.aoap@mail.mil)

**ALL STRYKERS ARE REQUIRED TO BE ENROLLED IN AOAP NO LATER THAN MAY 1, 2017.**

SEE TACOM MAINTENANCE ACTION MESSAGE 16-036 FOR MORE DETAILS. IT'S ON THE TACOM-UNIQUE LOGISTICS SUPPORT APPLICATIONS (TULSA) WEBSITE: <https://tulsa.tacom.army.mil/Maintenance/message.cfm?id=MA16-036.html>

YOU'LL NEED YOUR CAC AND FIRST-TIME USERS MUST REQUEST ACCESS.



# PS TACTICAL VEHICLES



- Tighten Up Loose Starter Bolts!
- Does Load Range Matter?
- Alternator Assembly NSN?
- POL Products Guide



# TIGHTEN UP LOOSE STARTER BOLTS!

# CRUNCH!

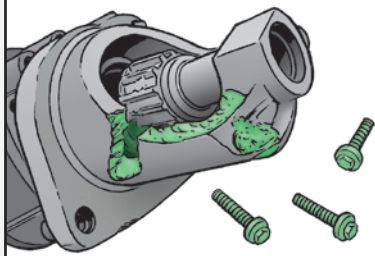
WHAT WAS  
THAT?

UH, I THINK  
YOUR STARTER  
BOLTS JUST  
GAVE WAY!

MECHANICS,  
THE BOLTS THAT  
MOUNT YOUR  
FMTV OR HIMARS  
STARTER TO THE  
ENGINE HAVE A  
BAD HABIT OF  
COMING LOOSE!

IN SOME CASES  
THE STARTER  
LOOSENS  
ENOUGH THAT  
THE END HOUSING  
ON THE STARTER  
CRACKS OR  
BREAKS.

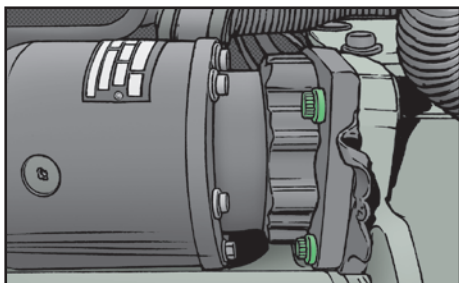
Loose bolts cause busted end housing



KEEP THE  
BOLTS  
TIGHT  
WITH THIS  
TWO-STEP  
PROCESS!

1. Whenever the starter is removed, make sure the starter bolt's threads are cleaned real good-like.
2. Put a dab of sealing compound on the bolt's threads and torque 'em to 42-52 lb-ft. Get a 50ml bottle of sealing compound with NSN 8030-01-014-5869. Or use NSN 8030-01-104-5392 to get a box of ten 10cc bottles.

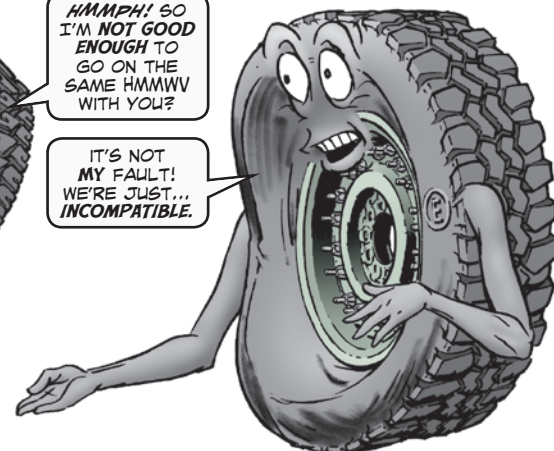
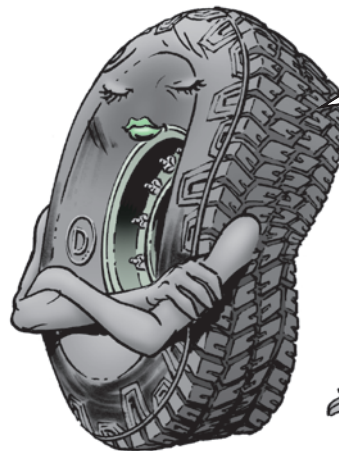
Add sealing  
compound,  
then torque  
bolts to  
42-52 lb-ft



# DOES LOAD RANGE MATTER?

HMMPH! SO  
I'M NOT GOOD  
ENOUGH TO  
GO ON THE  
SAME HMMWV  
WITH YOU?

IT'S NOT  
MY FAULT!  
WE'RE JUST...  
INCOMPATIBLE.



DOES  
LOAD RANGE  
MATTER?

YOU  
BET IT  
DOES!

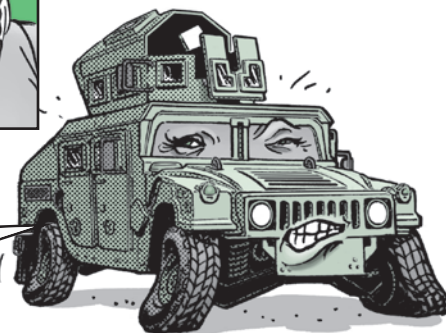
LOAD RANGE D TIRE AND  
WHEEL ASSEMBLIES ARE DESIGNED  
FOR A MAXIMUM LOAD CAPACITY  
OF **3,850 POUNDS**.

LOAD RANGE E ASSEMBLIES, ON  
THE OTHER HAND, CAN HANDLE A  
MAXIMUM LOAD OF **4,540 POUNDS**.

THAT'S AN IMPORTANT DISTINCTION  
IF YOUR HMMWV IS EQUIPPED  
WITH A FRAG KIT.

FRAG KIT-EQUIPPED  
VEHICLES ARE  
HEAVIER AND CAN  
EXCEED THE **3,850-LB**  
LOAD CAPACITY OF  
LOAD RANGE D  
ASSEMBLIES.

THE TIRES  
MAY WEAR OUT  
TOO SOON AND  
YOU COULD  
HAVE A SUDDEN  
BLOWOUT OR  
ROLLOVER!



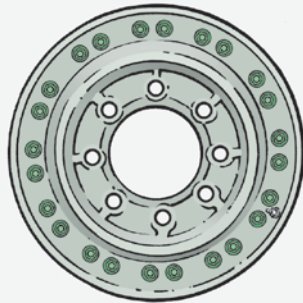
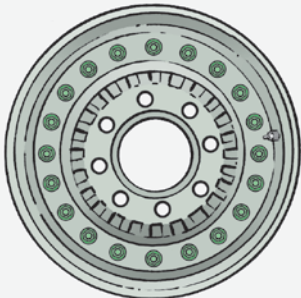
SO IF YOU HAVE M1114, M1151A1, M1152A1, M1165A1 AND M1167 EXPANDED CAPACITY VEHICLES (ECV) WITH FRAG KITS INSTALLED...

...TACOM RECOMMENDS ALL FOUR WHEEL POSITIONS AND THE SPARE BE EQUIPPED WITH A LOAD RANGE E TIRE AND WHEEL ASSEMBLY, NSN 2530-01-563-8620.

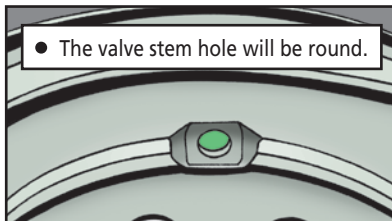
LOAD RANGE E ASSEMBLIES ARE DESIGNED TO HANDLE THE HEAVIER WEIGHT OF FRAG KIT-EQUIPPED VEHICLES.

## How to ID Load Range E Assemblies

- The assembly will have either a 20-bolt rim...
- ...or a 24-bolt rim with the studs in a tandem pattern.



- The tire will be either a Michelin BF Goodrich Baja T/A or a Goodyear Wrangler MT/R, NSN 2610-01-563-8328. Both tires can be mixed on the same vehicle.

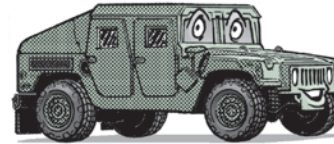


- The valve stem hole will be round.

- The tire will be stamped LOAD RANGE E.



## Load Range D Assemblies



HMMWVS THAT ARE **NOT** EQUIPPED WITH FRAG KITS ARE CLEARED TO USE BOTH LOAD RANGE D OR E ASSEMBLIES.

HOWEVER, YOU CAN **NEVER** MIX LOAD RANGE D AND E ASSEMBLIES ON THE SAME VEHICLE, THAT INCLUDES THE SPARE.

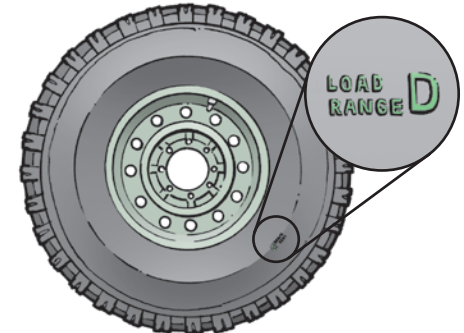
IN ADDITION, LOAD RANGE D ASSEMBLIES FALL UNDER TWO DIFFERENT GROUPS WITH SEPARATE NSNs AND THEIR OWN SET OF RULES.

### GROUP 1: LOAD RANGE D TIRE AND WHEEL ASSEMBLY, NSN 2530-01-493-5859

GROUP 1 COMES WITH A GOODYEAR WRANGLER MT TIRE, NSN 2610-01-333-7632, AND A 12-BOLT RIM.

**DO NOT** MIX THIS ASSEMBLY WITH ANY OTHER LOAD RANGE D OR E ASSEMBLY ON THE SAME VEHICLE (GOODYEAR MT TIRES CAN **NEVER** BE MIXED WITH GOODYEAR MT/R OR MICHELIN/BF GOODRICH BAJA T/A TIRES).

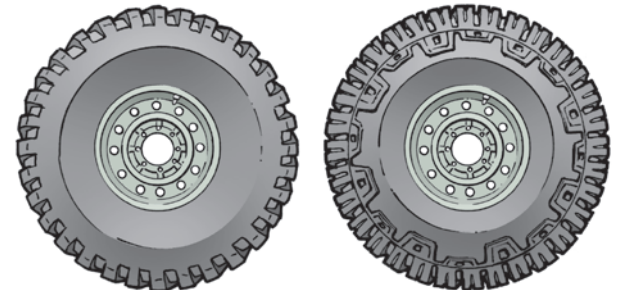
IF THE -5859 ASSEMBLY IS USED ON ANY OF YOUR HMMWV'S WHEELS, IT **MUST** BE USED ON ALL FOUR PLUS THE SPARE.



### GROUP 2: INCLUDES LOAD RANGE D ASSEMBLIES, NSNs 2530-01-541-6816 AND 2530-01-558-2138

THE -6816 ASSEMBLY COMES WITH A MICHELIN BF GOODRICH BAJA T/A OR GOODYEAR WRANGLER MT/R TIRE, NSN 2610-01-541-4090, AND A 12-BOLT RIM.

THE -2138 ASSEMBLY ALSO COMES WITH A MICHELIN BF GOODRICH BAJA T/A OR GOODYEAR WRANGLER MT/R TIRE, NSN 2610-01-541-4090, BUT HAS A 24-BOLT RIM WITH EVENLY SPACED STUDS.



BOTH ASSEMBLIES UNDER GROUP 2 (NSN 2530-01-541-6816 AND NSN 2530-01-558-2138) CAN BE MIXED ON THE SAME VEHICLE.

FOR MORE INFORMATION, CHECK OUT TACOM GPA 16-011:

<https://tulsa.tacom.army.mil/Safety/message.cfm?id=GPA16-011.html>

THE GPA ALSO INCLUDES LINKS TO A **QUICK REFERENCE GUIDE** FOR HMMWV TIRE AND WHEEL ASSEMBLIES AND A **SMART CARD** THAT LISTS CORRECT AIR PRESSURES.

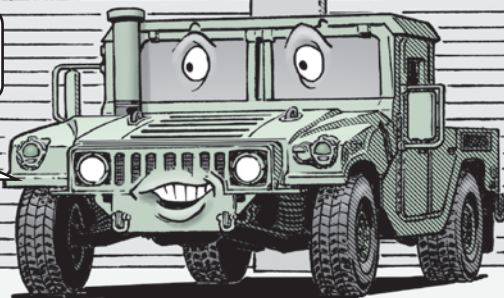


# ALTERNATOR ASSEMBLY NSN?



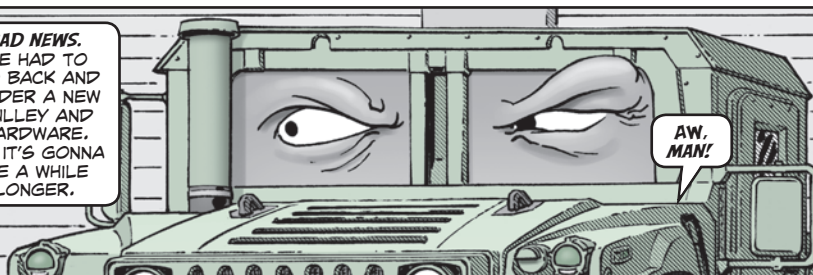
GOOD NEWS! WE  
FINALLY GOT YOUR  
NEW 210-AMP  
ALTERNATOR IN.

ALL RIGHT!  
ARE YOU  
GONNA  
INSTALL IT  
TODAY?



BAD NEWS.  
WE HAD TO  
GO BACK AND  
ORDER A NEW  
PULLEY AND  
HARDWARE.  
SO IT'S GONNA  
BE A WHILE  
LONGER.

AW.  
MAN!



Dear Half-Mast,

TM 9-2320-387-13&P in IETM EM 0323 (Mar 14) shows the 210-amp alternator assembly, NSN 2920-01-598-4541, and its components for HMMWVs. It replaces the older, 200-amp alternator.

But you'll run into trouble if you try to reuse the pulley from your old alternator. The pulley is pressed on and usually gets damaged when you try to remove it. So you have to order the pulley, adapter and nut separately.

It would be great if there were an NSN for the alternator, pulley and hardware as an assembly. Any chance of that happening?

CW3 R.D.M.

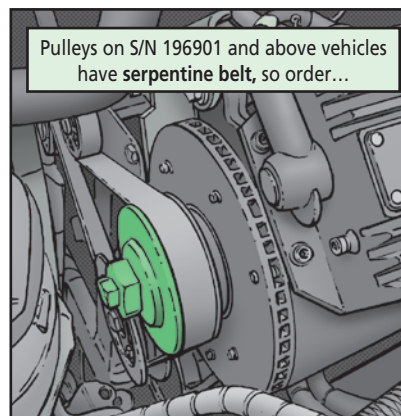


UNFORTUNATELY, CHIEF,  
IT'S **NOT** GOING TO  
HAPPEN. HERE'S WHY...

THERE ARE **VARIANCES**  
IN THE DIAMETER OF  
THE PULLEYS USED  
WITH 200- AND 210-AMP  
ALTERNATORS.

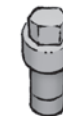
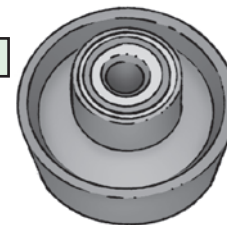
VEHICLES WITH  
**S/N 196901 AND ABOVE**  
USE A SERPENTINE BELT  
WHILE VEHICLES WITH  
**S/N 196900 AND BELOW**  
USE THE OLDER V-BELT  
SYSTEM.

SO IT'S JUST **NOT**  
COST EFFECTIVE  
TO HAVE SEPARATE  
NSNS FOR COMPLETE  
ASSEMBLIES.



Pulleys on S/N 196901 and above vehicles  
have serpentine belt, so order...

...pulley...



...adapter...

...and plain nut



WHEN IT'S TIME  
TO REPLACE THAT  
200- OR 210-AMP  
ALTERNATOR,  
HERE'S WHAT  
YOU'LL NEED TO  
ORDER BASED ON  
VEHICLE SERIAL  
NUMBER...

## S/N 196901 and Above

Item	NSN
Pulley	3020-01-491-2671
Adapter	5310-01-490-7461
Plain nut	5310-21-921-5930

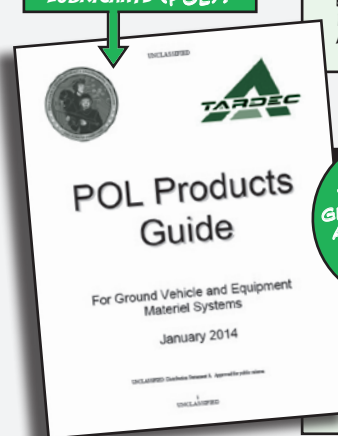
## S/N 196900 and Below

Item	NSN
Pulley	3020-01-444-5447
Flat washer	5310-00-772-0442 or 5310-01-397-1776
Self-locking nut	5310-00-419-0876 or 5310-01-348-8360

Fuels and Lubes...

# POL Products Guide

NEED A GUIDE TO  
PETROLEUM, OILS AND  
LUBRICANTS (POL)?



THE TANK AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (TARDEC) OFFERS A PUB THAT LISTS FUELS, FUEL ADDITIVES, LUBRICANTS, HYDRAULIC FLUIDS, ANTIFREEZE AND OILS USED IN ARMY GROUND VEHICLES, EQUIPMENT AND MATERIEL.

THE GUIDE GIVES NSNS, SPECS AND RECOMMENDED AMBIENT TEMPERATURES FOR FUELS AND LUBES.

TO GET  
THE LATEST  
GUIDE OR POL  
ASSISTANCE,  
CONTACT  
TARDEC.

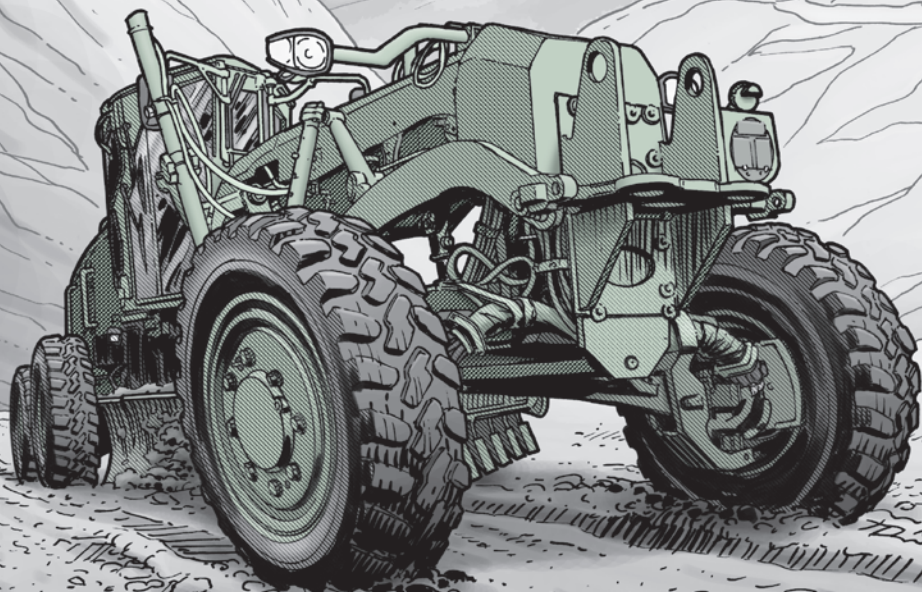
WRITE:

US Army RDECOM-TARDEC  
6501 E. 11 Mile Road  
Fuels and Lubricants Technology  
Team  
RD TA-SIE-ES-FPT-FL (MS-110)  
Warren, MI 48397-5000

EMAIL:

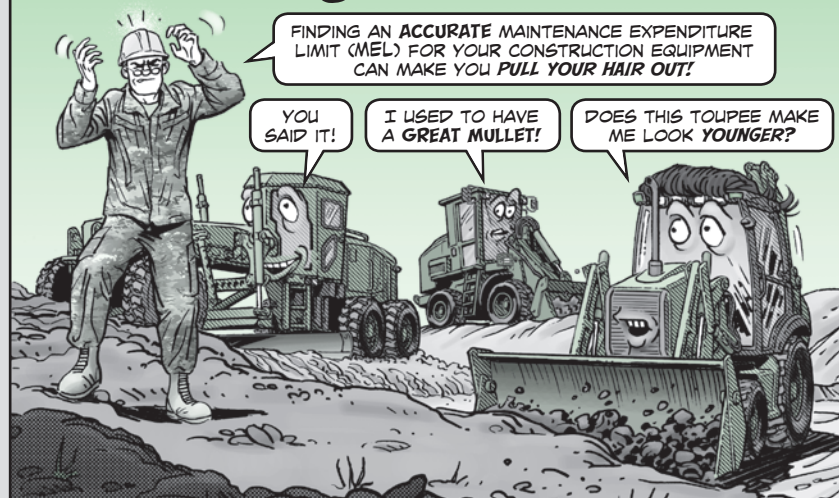
usarmy.detroit.rdecom.mbx.tardec-pol-help@  
mail.mil

## • Searching for CE MELs?



Construction Equipment...

## Searching For CE MELs?



## No Worries!

WE'VE GOT YOUR **COMPLETE LIST OF MELs** FOR **ALL** CONSTRUCTION EQUIPMENT RIGHT HERE!

**NOTE:** THE NUMBERS LISTED HERE ARE BASED ON CALENDAR YEAR (CY) 2016 MEL PERCENTAGES. IN CY 2017, THE MEL FOR OLDER EQUIPMENT MAY DROP 10-15 PERCENT.

Nomenclature/Model	NSN	MEL%
D5BNS tractor, light draw pull tractor	2410-01-126-7902	0
D5BS tractor, light draw pull tractor	2410-01-127-6512	0
D5BS SLEP tractor, light draw pull tractor	2410-01-127-6512	40
D5BS1 light draw pull tractor	2410-01-270-1192	0
D5BS1 SLEP light pull tractor	2410-01-270-1192	40
D5BNS1 light pull tractor	2410-01-296-8479	0
D6K light draw tractor W/R	2410-01-565-2599	75
D6K light draw tractor W/W	2410-01-565-2600	75
D7F tractor W/R	2410-00-177-7283	0
D7F tractor W/W	2410-00-177-7284	0
D7F tractor W/W	2410-00-185-9792	0
D7F tractor W/R	2410-00-185-9794	0
D7F tractor W/W (winterized)	2410-00-300-6664	0



Nomenclature/Model	NSN	MEL%
D7F tractor W/R (winterized)	2410-00-300-6665	0
D7G tractor W/R	2410-01-223-0350	10
D7G tractor W/W	2410-01-223-7261	10
D7G tractor W/W (winterized)	2410-01-253-2117	10
D7G tractor W/R (winterized)	2410-01-253-2118	10
D7G tractor W/W & AoA	2410-01-538-6780	25
D7G tractor W/R & AoA	2410-01-538-7793	25
D7R II tractor W/R	2410-01-565-2603	75
D7R II tractor W/W	2410-01-565-2605	75
D8K tractor W/R	2410-00-574-7598	0
D9R low speed tractor w/rip	2410-01-503-4557	45
JD450-LT low speed tractor	2410-01-139-9859	25
JD550/6405 low speed tractor	2410-01-412-0930	10
Backhoe loader (BHL)	2420-01-532-3399	55
Backhoe loader, John Deere model JD410 (CCE)	2420-00-567-0135	0
Small emplacement excavator (SEE), model FLU 419	2420-01-160-2754	25
Small emplacement excavator (SEE), model FLU 419 (RECAP)	2420-01-160-2754	25
Small emplacement excavator (SEE), model FLU 10344	2420-01-205-8636	0
High mobility engineer excavator, Type I (HMEE-1)	2420-01-535-4061	55
Deployable universal combat earthmover (DEUCE), model DV100 (non-SLEP)	2430-01-423-2819	25
Deployable universal combat earthmover (DEUCE), model DV100 (SLEP)	2430-01-423-2819	60
Deployable universal combat earthmover (DEUCE), model DV100 w/AoA	2430-01-538-7804	60
H100C scoop loader, Type I	3805-01-052-9042	0
H100C scoop loader, Type I, w/AoA	3805-01-538-7782	0
H100C scoop loader, Type II	3805-01-052-9043	0
MW24C scoop loader, Type II, Case	3805-01-150-4814	25
MW24C scoop loader w/AoA	3805-01-538-7782	25
Scoop loader, Type II, Clark model 175B	3805-00-602-5006	0
Scoop loader, Type II, Clark model 175B	3805-00-602-5013	0
Scoop loader, model 950 B5	3805-01-126-7914	0
Scoop loader, model 950 BNS	3805-01-126-7915	25
Scoop loader, model 950 BNSCE	3805-01-260-5163	25
Scoop loader, model 950 BSCE	3805-01-260-5162	0
M400T skid steer loader, Type II	3805-01-552-4485	60

Nomenclature/Model	NSN	MEL%
M400W skid steer loader, Type III	3805-01-552-4487	60
Skid steer loader, Type I, Bobcat model 763G	3805-01-502-3529	0
Skid steer loader, Type I, Bobcat model S150	3805-01-515-3766	0
924G bucket loader, light	3805-01-533-1768	60
924H bucket loader	3805-01-570-6666	60
966H bucket loader, heavy	3805-01-533-1857 3805-01-533-1853	60 20
815F compactor	3805-01-431-8439	25
815F compactor (SLEP)	3805-01-431-8439	75
815F compactor w/AoA	3805-01-538-7811	25
Compactor, high speed, Bomag model K-300	3805-01-024-4064 (formerly 3895-01-024-4064, LIN E61618)	0
130G road grader	3805-01-150-4795	0
130G road grader	3805-01-252-0128	0
130G NS road grader	3805-01-538-6850	35
120M road grader	3805-01-560-2384	60
613BSNS scraper	3805-01-144-2992	0
613BSNS scraper	3805-01-267-4178	0
613BSS scraper	3805-01-144-8837	0
613BSS scraper	3805-01-267-4177	0
613C scraper	3805-01-497-0697	50
621B scraper (non-SLEP)	3805-01-153-1854	0
621B scraper (SLEP/RESET)	3805-01-153-1854	40
621B scraper w/AoA	3805-01-538-6852	25
621G scraper	3805-01-550-7164	75
Hydraulic excavator (HYEX), John Deere model 230LCR	3805-01-463-0804	35
Hydraulic excavator (HYEX), Type I, John Deere model JD240DLR	3805-01-573-0677	55
Hydraulic excavator (HYEX), Type II, John Deere model 230 LRCD w/ rock drill	3805-01-463-0806	35
Hydraulic excavator (HYEX), Type III, John Deere model 330LCR w/impact breaker	3805-01-463-0805	35
Ingersoll P250 pneumatic tool w/compressor	3820-00-950-8584	10
Paving breaker, Skidril model BP 180-II	3820-01-326-7997	0
Crush, screen & wash plant, Cedarapids model CR M150	3820-01-435-5177	25
Magnetic sweeper, John Deere model JD401-B	3825-00-598-0045	0
Rotary sweeper, Little Giant model ES100K	3825-01-022-7329	0



Nomenclature/Model	NSN	MEL%
Rotary sweeper, M-B model 53 MH	3825-01-314-2926	0
Water distributor, Macleod model W15B901	3825-00-474-3742	0
Water distributor, 6,000-gal, Macleod model WD65-D	3825-01-065-6221	0
Water distributor, 2,500-gal, Caterpillar model 613B WDNS	3825-01-143-1212	0
Water distributor, 2,500-gal, Caterpillar model 613B WDS	3825-01-143-1213	0
Water distributor, 2,500-gal, Caterpillar model 613C	3825-01-497-0690	55
Water distributor, 6,000-gal, Etnyre model 60 PRS	3825-01-297-3357	0
Concrete mixer, T.L. Smith model 499A	3895-00-444-1531	0
Steel drum roller, Hyster model C35003	3895-00-578-0372	0
RS-28 Tampo roller	3895-01-012-8875	0
C530A roller	3895-01-013-3630	0
Roller, towed, model PT-13	3895-21-913-7442	0
Steel wheel roller, Caterpillar model CB534B	3895-01-396-2822	25
Steel wheel roller, Caterpillar model CB534B (SLEP)	3895-01-396-2822	75
Steel wheel roller, Caterpillar model CB534C	3895-01-502-4005	50
Vibratory roller, Rexnord model SP-848	3895-01-075-2823	0
Vibratory roller, Caterpillar model CS433LHT	3895-01-456-2733	25
Vibratory roller, Caterpillar model CS433LHT (SLEP)	3895-01-456-2733	75
Vibratory roller, Caterpillar model CS433CARMBL/ARDROP	3895-01-456-2734	25
Vibratory roller, Caterpillar model CS563D	3895-01-456-2735	25
Vibratory roller, Caterpillar model CS563D (SLEP)	3895-01-456-2735	75
Vibratory roller, Caterpillar model CS563D (AoA)	3895-01-538-8279	25
Piston hammer tamper, Stone model VR11	3895-01-013-4328	0
Hot oil heater, model M087	3895-01-384-5307	0
Hot oil heater, model RTM12	3895-01-063-7892	0
Backfill tamper, model VR11	3895-01-151-2749	0
Concrete saw, Gregory model C-3000-30	3895-01-303-8909	0
Rotary tiller mixer, Seamon-Maxon model T0730H-KEG	3895-01-331-8560	10
Asphalt melter, model SDMD-300A	3895-01-332-3024	0
Paving machine, model 780T	3895-01-379-1102	0
Paving machine, model 8816M	3895-01-577-2425	75
Piston hammer tamper, Weber model RC48-2	3895-01-383-6488	0
Vibratory plate compactor (VPC), model BPU-3050A	3895-01-610-0184	75
Compressor, 250 cfm, Ingersoll model P250-WDM-H268	4310-01-158-3262	25
Compressor, 750 cfm, Sullair model 750DP	4310-01-053-3891	20
Moisture and density tester, Troxler model 3440+	6635-01-604-1875	75

\* **Note:** SLEP vehicle data plates will be stamped with an S after the serial number.  
 RESET vehicles will have a D, DD, DD1, DD2 or R stamped after the serial number.

**PS END**

WE'VE GOT A LOT OF GOOD STUFF FOR YOU IN THIS ISSUE. PULL UP A CHAIR AND GET READING!

- Authorized Devices for MEDEVAC
- Avionic Deck Dampers Installed Backwards?
- Beware of the Three S's of Dynamic Rollout!
- Alternative Cleaning Compound Approved!

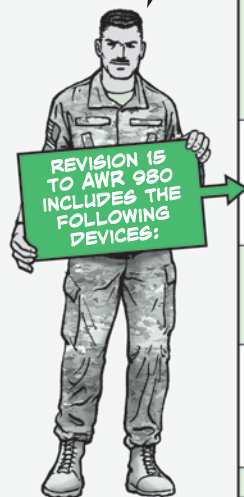
**PS AVIATION**

PS 772 21 MAR 17

IN THE MEDEVAC COMMUNITY, ALL KINDS OF HOIST DEVICES ARE AVAILABLE, BUT THEY'RE **NOT** ALL NECESSARILY APPROVED FOR USE.

NOW THE MEDEVAC HEADSHEP HAS **ADDED** MORE AUTHORIZED HOIST DEVICES TO AIR WORTHINESS RELEASE 980 (AWR 980), INCLUDING THE OFTEN-REQUESTED "STOKES" LITTER BASKET AND THE #214 QUICK STROP.

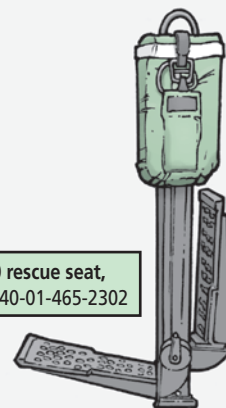
THESE DEVICES ARE **ALSO** APPROVED FOR THE LAKOTA IN AWR 9.



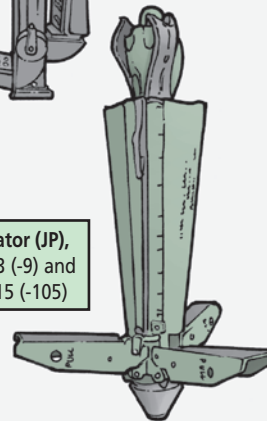
# AUTHORIZED DEVICES FOR MEDEVAC

Item	NSN
#420 rescue seat	4240-01-465-2302
Jungle forest penetrator (JP)	4240-00-199-7353 (-9) 4240-01-500-8115 (-105)
Rescue baskets	
-#499-B rigid	4240-01-250-0313
-#495 standard lifting eye, collapsible	Order at: <a href="http://www.lifesavingsystems.com">http://www.lifesavingsystems.com</a>
-#495-L inverted lifting eye, collapsible (for use with internal rescue hoists)	Order at: <a href="http://www.lifesavingsystems.com">http://www.lifesavingsystems.com</a>
Rescue litters	
-#402 hoistable litter	6530-01-187-0104 (include PN #402 for the regular litter and PN #402-TI for the titanium litter)
-#402-TI hoistable litter (Titanium)	
-#404 Stokes, rigid	6530-01-338-6094 (include PN #404 for non-flotation and PN #404-F for flotation)
-#404-F Stokes w/flotation, rigid	
-#406 Stokes, collapsible	6530-01-397-0094 (include PN #406 for non-flotation and PN #406F for flotation)
-#406-F Stokes w/flotation, collapsible	
Rescue strops	
-#216-1 rescue strop (for military personnel only)	1680-01-347-4946
-#214 quick strop	4240-01-545-6722
Litter hoisting sling	
-#190	1670-01-226-5300
-#193-A	<a href="http://www.lifesavingsystems.com">http://www.lifesavingsystems.com</a>
SKED rescue systems	
-SK-200 basic rescue system	6530-01-260-1222
-SK-800 complete rescue system	6530-01-301-0796
Rescue net	1670-01-172-3592
#415 static discharge cable	<a href="http://www.lifesavingsystems.com">http://www.lifesavingsystems.com</a>

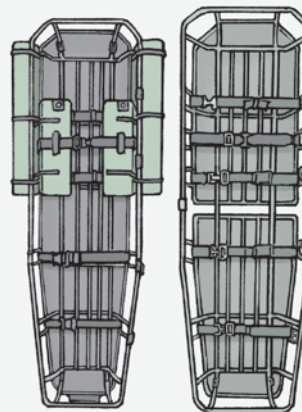
#420 rescue seat,  
NSN 4240-01-465-2302



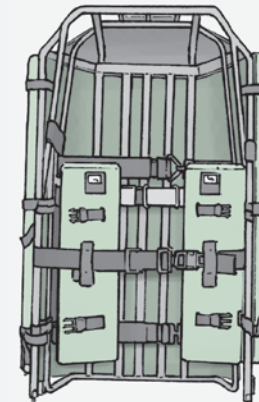
Jungle forest penetrator (JP),  
NSN 4240-00-199-7353 (-9) and  
NSN 4240-01-500-8115 (-105)



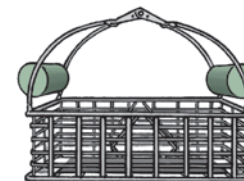
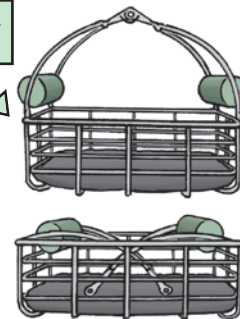
#404 "Stokes" litter basket, rigid  
NSN 6530-01-338-6094



#406 "Stokes" litter basket, collapsible  
NSN 6530-01-397-0094



#499-B rigid rescue basket,  
NSN 4240-01-250-0313

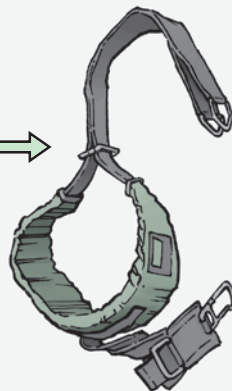


#495 collapsible rescue basket,  
<http://www.lifesavingsystems.com>



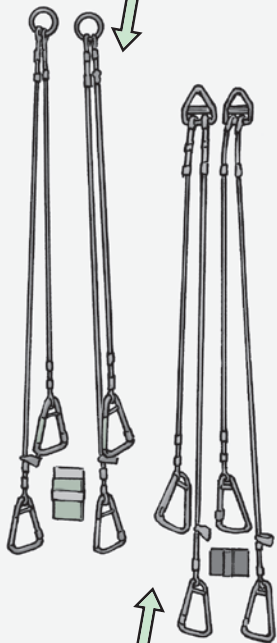


#216-1 rescue strop,  
NSN 1680-01-347-4946

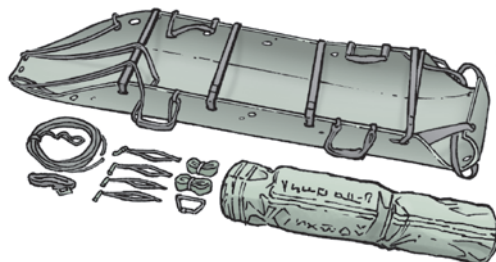


#214 quick strop,  
NSN 4240-01-545-6722

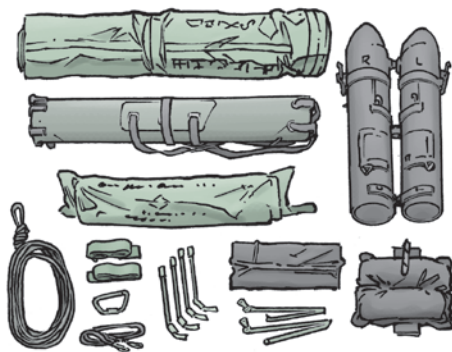
#190 litter hoisting sling,  
NSN 1670-01-226-5300



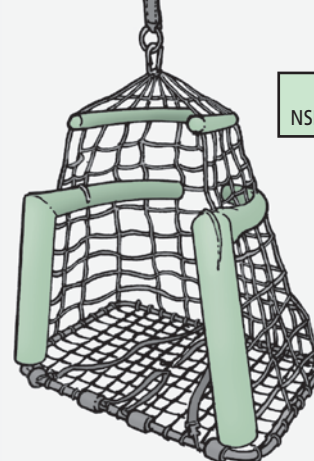
#193-A litter hoisting sling,  
<http://www.lifesavingsystems.com>



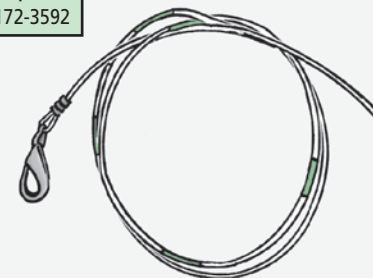
SK-200 basic rescue system, NSN 6530-01-260-1222



SK-800 complete rescue system, NSN 6530-01-301-0796



Rescue net,  
NSN 1670-01-172-3592



#415 static discharge cable,  
<http://www.lifesavingsystems.com>



UH-72A Lakota...

## Avionic Deck Dampers Installed BACKWARDS?

MECHANICS, EYEBALL THE AFT AREA OF YOUR LAKOTA. THERE HAVE BEEN SOME ISSUES WITH THE DECK DAMPER BEING INSTALLED BACKWARDS.

IF **YOU** HAVE THIS PROBLEM, **TAKE CARE OF IT.**

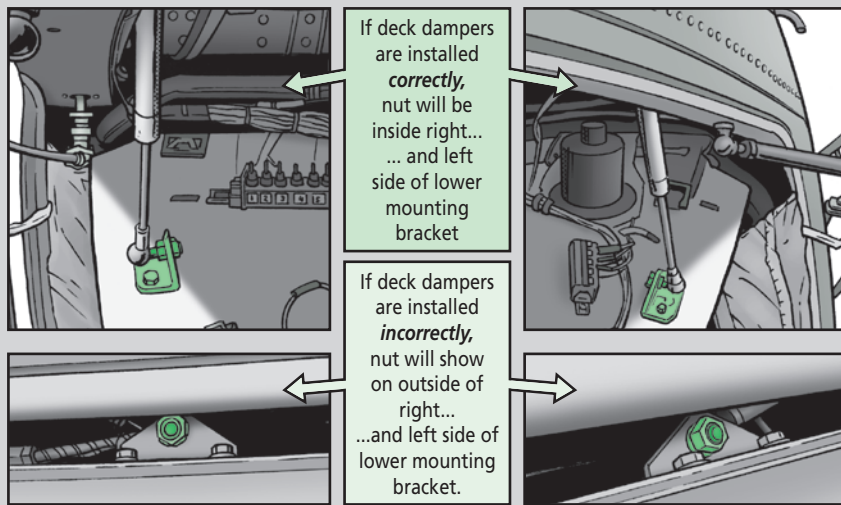
QUITE A FEW LAKOTAS ACROSS THE FLEET HAVE THE LEFT AND RIGHT AVIONICS DECK DAMPERS INSTALLED **BACKWARDS** AT THE LOWER MOUNTING BRACKET. THAT CAN CAUSE THE STRUTS TO **BOTTOM OUT** AND **NOT DAMPEN** THE AVIONICS SHELF'S MOVEMENT INTO THE OPEN POSITION.

ALSO, IF THE DECK DAMPERS ARE INSTALLED **BACKWARDS**, THAT MEANS THE RETAINING NUT IS ON THE **OUTSIDE** OF THE MOUNTING BRACKET INSTEAD OF THE **INSIDE**. IN THAT POSITION, THE NUT **DOESN'T** MAINTAIN TORQUE AND BEGINS TO **BACK OFF**.

THERE HAS BEEN ONLY ONE INCIDENT OF FOREIGN OBJECT DAMAGE (FOD) DUE TO THE NUT FALLING COMPLETELY OFF, BUT THAT'S ONE TOO MANY.





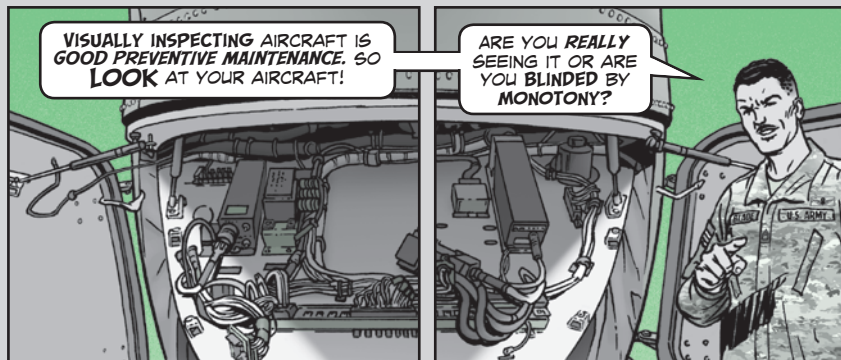


If deck dampers are installed **correctly**, nut will be inside right...  
...and left side of lower mounting bracket

If deck dampers are installed **incorrectly**, nut will show on outside of right...  
...and left side of lower mounting bracket.

IF THE DAMPERS ARE INSTALLED BACKWARDS, **FIX THEM!**

IT'S YOUR RESPONSIBILITY TO ENSURE ALL PROCEDURES IN SECTION 25-70-00 (4-1), FIGURE 401 OF THE AIRCRAFT MAINTENANCE MANUAL (AMM) ARE FOLLOWED.



VISUALLY INSPECTING AIRCRAFT IS **GOOD PREVENTIVE MAINTENANCE. SO LOOK AT YOUR AIRCRAFT!**

ARE YOU **REALLY** SEEING IT OR ARE YOU **BLINDED BY MONOTONY?**

A FEW MORE MINUTES OF SEEING CLEARLY ON THE GROUND MIGHT JUST KEEP YOUR AIRCRAFT **FLYING!**

PS END



UH/HH-60M...

SERGEANT BLADE, WE WORK ON THE MEDEVAC. IS DYNAMIC ROLLOUT REALLY ALL THAT IMPORTANT TO US?

YEAH, I'VE NEVER EXPERIENCED IT DURING MY HOIST OPERATIONS.

SOLDIERS, YOU DEFINITELY NEED TO

## BEWARE OF THE THREE S'S OF DYNAMIC ROLLOUT!



JUST BECAUSE DYNAMIC ROLLOUT IS RARE, DOESN'T MEAN YOU SHOULDN'T BE AWARE OF ITS RISKS.

THREE CONDITIONS MUST EXIST IN ORDER FOR ROLLOUT TO HAPPEN. **SUSCEPTIBILITY, SLACK AND SECURITY.**

ONCE YOU REMOVE ONE OF THESE THREE, ROLLOUT WILL NOT OCCUR.

**O**PERATORS, HOIST OPERATIONS MAY SEEM ROUTINE, BUT **SECURITY** OF LOADS AND PERSONNEL SHOULD ALWAYS BE A PRIORITY TO PREVENT DYNAMIC ROLLOUT.

DYNAMIC ROLLOUT (ALSO KNOWN AS **RING ROLLOUT, FORCED ROLLOUT, OR SIMPLY ROLLOUT**) IS WELL UNDERSTOOD IN THE MOUNTAIN CLIMBING COMMUNITY BECAUSE OF THEIR USE OF CARABINERS.

IT HASN'T BEEN TAUGHT IN THE ARMY MEDEVAC COMMUNITY AS MUCH BECAUSE THE **PROBABILITY** OF DYNAMIC ROLLOUT IS **UNLIKELY** WITH CURRENT HOISTING EQUIPMENT.



THE POTENTIAL FOR SERIOUS INJURY IS DRIVING A RENEWED EMPHASIS ON TRAINING AND AWARENESS ABOUT THIS CONDITION.

PS MORE



## What Is Dynamic Rollout?

I'LL TELL YOU! IT'S A SITUATION THAT CAN OCCUR WHEN A HOISTING DEVICE, SUCH AS A RESCUE SEAT OR QUICK STOP, IS CONNECTED TO A HOIST HOOK, BUT **NOT** UNDER A LOAD.

THAT CAN ALLOW THE LIFTING EYE ON THE HOISTING DEVICE TO ROTATE UP AND SNAG ON THE HOOK'S "BEAK."

THE BEAK IS THE TIP OF THE HOOK THAT EXTENDS OUT PAST THE LOCKING DEVICE OR GATE.

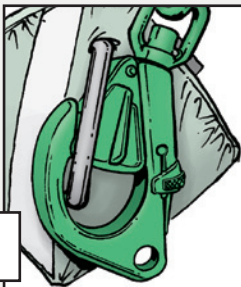
ONCE PRESSURE IS APPLIED, THE LIFTING EYE CAN BE FORCED PAST THE LOCKING DEVICE AND FALL FREE OF THE HOOK.

## The Three S's

THERE ARE **THREE CONDITIONS** THAT MUST EXIST FOR DYNAMIC ROLLOUT TO OCCUR:

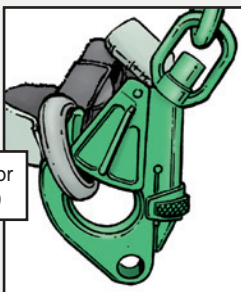
### 1. Susceptibility.

First, the lifting eye on the hoisting device must be the right size and shape to rotate and catch on the hook's beak.



420 Rescue Seat (susceptible)

If the lifting eye is too small to hook the beak, dynamic rollout isn't a danger.



Jungle Penetrator (not susceptible)

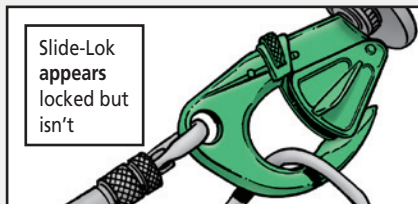
### 2. Slack.

There must be enough slack in the cable to allow the lifting eye to rotate up and catch the beak. If the hoisting device remains under load, gravity will keep the lifting eye in its proper location.

### 3. Security.

The locking device **must** be unlocked.

Slide-Lok appears locked but isn't



TO PREVENT DYNAMIC ROLLOUT FROM HAPPENING, YOU MUST REMOVE AT LEAST ONE OF THE THREE CONDITIONS: SUSCEPTIBILITY, SLACK OR SECURITY.

## Susceptibility

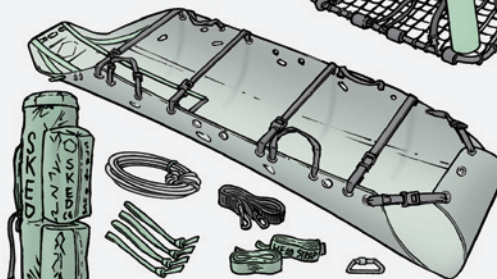
SAFETY OF FLIGHT (SOF) MESSAGES H-60-16-SOF-02 AND H-72-16-SOF-01 IDENTIFIED FIVE CURRENTLY AUTHORIZED HOIST DEVICES THAT ARE **SUSCEPTIBLE** TO DYNAMIC ROLLOUT.

THE DEVICES ARE:

Rescue net, NSN 1670-01-172-3592

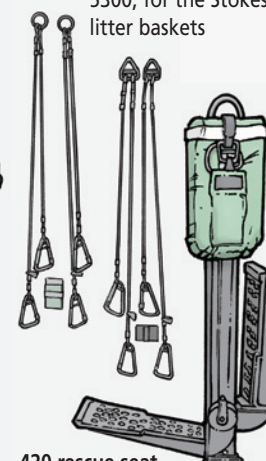


5k/10k carabiners used by medics on the ALSE vest



Rescue net, NSN 1670-01-172-3592

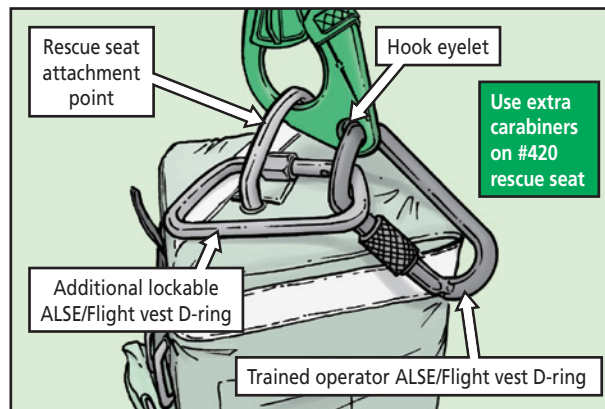
#190 hoisting sling, NSN 1670-01-226-5300, for the Stokes litter baskets



420 rescue seat, NSN 4240-01-465-2302

Hoist devices susceptible to dynamic rollout

THESE SOFs PROVIDE **SHORT-TERM SOLUTIONS** FOR EACH OF THESE DEVICES, WHICH ENTAILS THE USE OF **EXTRA CARABINERS** AS "SAFETIES" UNTIL OTHER SOLUTIONS CAN BE IMPLEMENTED.



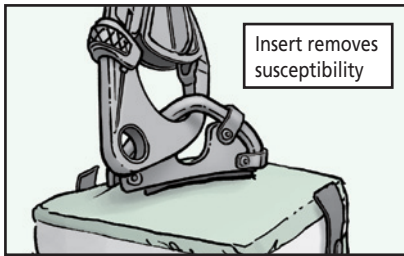
Use extra carabiners on #420 rescue seat

SINCE THE #190 HOISTING SLING WAS ONLY RECENTLY APPROVED FOR USE, YOU MAY NOT HAVE SEEN ANY YET.

A **BETTER OPTION** IS TO USE THE #193 (TITANIUM) HOISTING SLING AS AN ALTERNATIVE. IT HAS BEEN TESTED AND PROVEN **NOT** TO BE SUSCEPTIBLE TO ROLLOUT.

PS MORE





MEDEVAC IS ALSO WORKING ON APPROVAL FOR MEDICS TO TIE DIRECTLY INTO THE HOIST HOOK EYELET AS THEIR PRIMARY LIFTING POINT **WITHOUT** THE NEED FOR AN ADDITIONAL SAFETY CARABINER.

THERE HAVE BEEN TECHNICAL DISCUSSIONS ON THE STRUCTURAL STRENGTH OF THE EYELET FOR THIS PURPOSE. MANUFACTURER TEST REPORTS REFLECT THAT THE EYELET WILL SUSTAIN STRUCTURAL LOADS OF UP TO 17,000 POUNDS.

## Slack

**THERE ISN'T MUCH YOU CAN DO TO REMOVE SLACK FROM THE EQUATION.**

**BUT** YOU CAN BECOME BETTER AT MAINTAINING POSITIVE CONTROL OF THE CABLE AT ALL TIMES. SIMPLY BE AWARE OF WHAT CAN HAPPEN WHEN SLACK AND SUSCEPTIBILITY ARE COMBINED.

## Security

THE **SLIDE-LOK HOOK** IS THE MOST COMMON HOOK USED BY ARMY MEDEVAC. IT'S CRITICAL FOR **TWO REASONS** THAT CREWMEMBERS CONFIRM THAT THE **SLIDE-LOK** IS IN THE **FULLY LOCKED POSITION BEFORE** HOISTING A LOAD:

1. A recent analysis revealed that if the lock is out of the fully locked detent by as little as 0.05 inches and enough force is applied, the rounded edge of the gate can produce a "cam effect" on the rounded edge of the lock. That forces the lock down and allows the gate to open. Combine that with susceptibility and slack and you have a formula for a potential accident.
2. It's easy for a crewmember or passenger to accidentally unlock the hook due to the position of their hand when gripping the hook.

## The Future

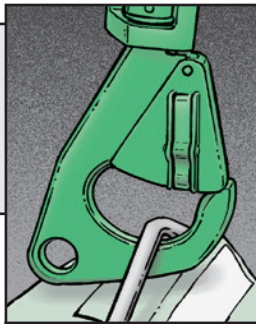
THE LONG-TERM SOLUTION IS TO **REPLACE** THE CURRENT HOOK WITH ONE THAT IS **ALWAYS LOCKED** UNLESS THE OPERATOR UNLOCKS IT.

MEDEVAC IS EVALUATING SEVERAL CANDIDATE HOOKS, BUT THEY'RE **STILL NOT AUTHORIZED FOR USE.**

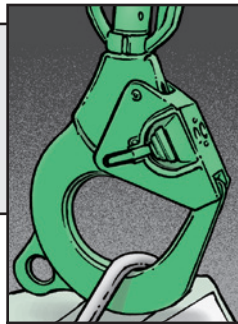
UNTIL A NEW HOOK IS APPROVED, PROPER HOIST TRAINING AND EDUCATION IS **ESSENTIAL** TO ENSURE SAFE OPERATIONS.

**ALWAYS BE AWARE** OF THE THREE DYNAMIC ROLL-OUT CAUSES DURING HOISTING OPERATIONS.

**DON'T LET SUSCEPTIBILITY, SLACK AND SECURITY BE YOUR ACHILLES HEEL!**



Auto-Lok under evaluation but not approved for use



D-Lok under evaluation but not approved for use

IF YOU HAVE **QUESTIONS OR SUGGESTIONS** FOR THE MEDEVAC TEAM, CONTACT DAVID CREECH, AT (256) 842-1176 OR BY EMAIL: [david.w.creech4.ctr@mail.mil](mailto:david.w.creech4.ctr@mail.mil)



## Aviation and Ground Support...

# ALTERNATIVE CLEANING COMPOUND APPROVED!

MECHANICS, MOST PETROLEUM-BASED SOLVENTS AND CLEANERS CONTAIN VOLATILE ORGANIC COMPOUNDS (VOCs).

EVEN THOUGH MIL-PRF-680 DRY CLEANING SOLVENT MEETS THE MATERIAL SPECIFICATIONS FOR GENERAL CLEANING OF AIRCRAFT AND ENGINE COMPONENTS, AS WELL AS OIL REMOVAL AND DEGREASING ON GROUND SUPPORT EQUIPMENT...

...IT **STILL** HAS A VOC CONTENT OF **MORE THAN 750 GRAMS PER LITER (g/l).**

**SOME AREAS OF THE COUNTRY RESTRICT VOC CONTENT TO A MAXIMUM OF 25 g/l!**

## Now for the GOOD NEWS!

THE AMCOM AVIATION ENGINEERING DIRECTORATE HAS **APPROVED** THE USE OF NAVSOLVE, TYPE II (MIL-PRF-32295A), AS AN **ALTERNATIVE** TO MIL-PRF-680, TYPE II.

NAVSOLVE CAN BE USED ON THE **SAME** AIRCRAFT PARTS AS MIL-PRF-680 AND PERFORMS SIMILARLY.

## WAIT! WHAT IS NAVSOLVE?

NAVSOLVE IS A **NON-AQUEOUS CLEANER** THAT IS **HAP FREE** AND IN **LOW VOC** (NO MORE THAN 25 g/l).

**THAT MEANS YOU CAN USE THIS CLEANER** IN AREAS WHERE MIL-PRF-680, TYPE II, IS **OFF LIMITS.**

USE  
THESE  
NSNs  
TO  
ORDER:

Size	NSN
1 gallon	6850-01-606-8356
5 gallons	6850-01-606-8357
15 gallons	6850-01-606-3293
55 gallons	6850-01-606-8358

BE SURE TO CHECK YOUR TMS FOR SPECIFIC GUIDANCE REGARDING THE USE OF NAVSOLVE OR CONTACT AMCOM G-4 ENVIRONMENTAL WITH ANY QUESTIONS.

CONTACT THE AMCOM ENVIRONMENTAL HOTLINE AT DSN 897-1711, (256) 313-1711 OR BY EMAIL:

[usarmy.amcom-environmental@mail.mil](mailto:usarmy.amcom-environmental@mail.mil)



# PS SMALL ARMS

ALSO  
FEATURING  
**MISSILES  
AND  
CBRN**

- Cheaper BUIS Fix
- What Covers Gaging?
- TM Shows Wrong Loading Procedure!
- M249 Scraper NSN?
- PM Worth Saluting!
- A Gold Mine of Mine Detector Advice
- CBRN Questions? JACKS Has the Facts!

M16-Series Rifle...

## CHEAPER BUIS FIX



Dear Editor,

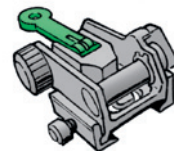
Page 36 of PS 763 (Jun 16) had a good tip on the M16 rifle's backup iron sight (BUIS).

It's important to keep the BUIS in the stored position when not in use so it doesn't get snapped off. But it's also important to make sure the BUIS stays in the down position by giving it a gentle tug. If the sight's notch is worn, it won't stay down and it ends up damaged. Plus, if it pops up during firing, it's hard to use the optic sights.

Eventually the BUIS will need to be replaced no matter how careful you are. That leads to my tip: Instead of ordering a new BUIS, NSN 1005-01-484-8000, for around \$60, order just the sight aperture, NSN 1005-01-497-2592, for less than \$12 and repair it. The instructions are in WP 0010 in TM 9-1005-319-23&P (Nov 08). Considering how many BUISs are broken every year, that savings can really add up.

BUIS broken?

Order just the sight aperture, not entire sight



Andrew Guilliams  
TACOM LAR

**Editor's note:** Every small arms repairman should keep your tip in sight, Andrew. Thanks.

Small Arms...

## WHAT COVERS GAGING?

Dear Half-Mast,  
What is the publication that covers small arms gaging? And how do you document gaging?

B.G.

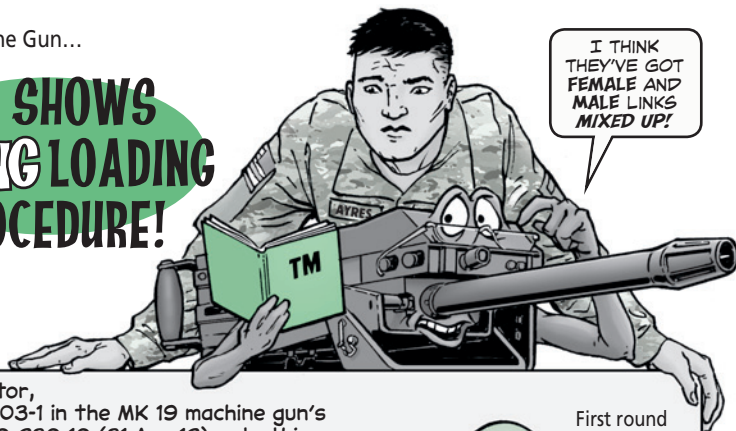


THERE'S **NOT** ONE PUBLICATION THAT COVERS GAGING FOR ALL SMALL ARMS, SIR. INSTEAD, GAGING IS COVERED IN EACH WEAPON'S -23&P TM.

FOR THE M2 MACHINE GUN, FOR EXAMPLE, GAGING REQUIREMENTS ARE LISTED IN WP 0026 IN TM 9-1005-213-23&P. GAGING SHOULD BE DOCUMENTED ON DA FORM 2404 OR 5988-E.

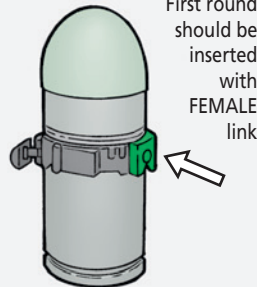


# TM SHOWS WRONG LOADING PROCEDURE!



Dear Editor,  
WP 0003-1 in the MK 19 machine gun's TM 9-1010-230-10 (31 Aug 12) gets things backwards on the loading procedure. Step 2 says to insert the first round with the female link through the feed throat. That's right. But item 1's arrow is pointing at the male link. **That's wrong!** Trying to load the MK 19 with the first round's male link is difficult and could damage the weapon. Please alert your readers so new gunners don't make this mistake.

SPC John Ayres  
Ft Drum, NY



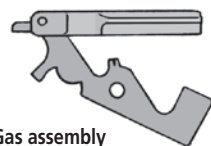
## Editor's note:

*Consider it done. This will be corrected in the next revision to the TM.*

# M249 SCRAPER NSN?

Dear Half-Mast,  
I've been trying to order the M249 machine gun's gas assembly scraper, NSN 1005-01-131-1914. But the NSN is terminal. How do you order the scraper?

SPC M.M.



Gas assembly  
scraper has  
new NSN



USE NSN 5120-01-598-4301, SPECIALIST. IT'S LISTED IN THE NEWEST UPDATE TO TM 9-1005-201-10.

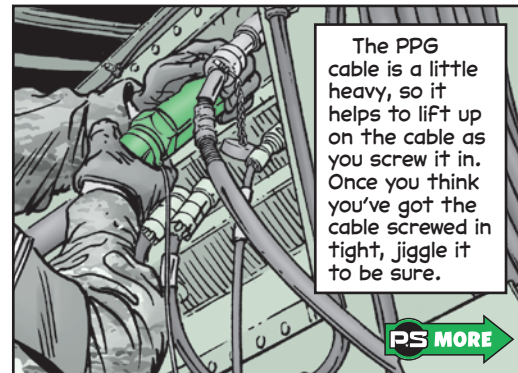
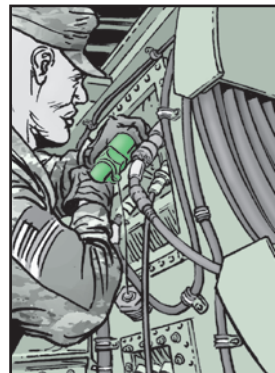
# PM Worth Saluting!

MR. STAHLEY  
HAS SOME  
GREAT TIPS,  
PATRIOT UNITS.  
GIVE A LISTEN!



Dear Editor,  
Patriot units can keep their missiles flying high if they remember these tips we've come up with at Ft Hood:

**Pay careful attention to the Engagement Control Station's (ECS) prime power generator (PPG) control cable.** If the PPG cable loses contact even briefly, power is lost to the radar and ECS. Before you connect the cable, check the connectors for dirt that can hurt connections and bend pins. Blow out the connectors with low-pressure air if necessary.

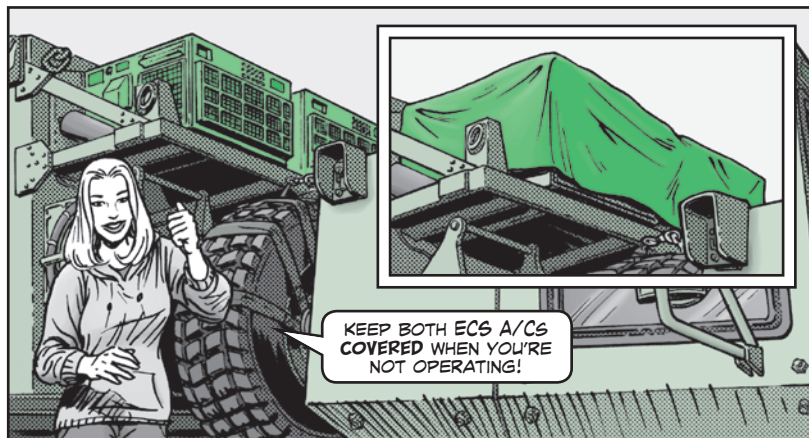


The PPG cable is a little heavy, so it helps to lift up on the cable as you screw it in. Once you think you've got the cable screwed in tight, jiggle it to be sure.

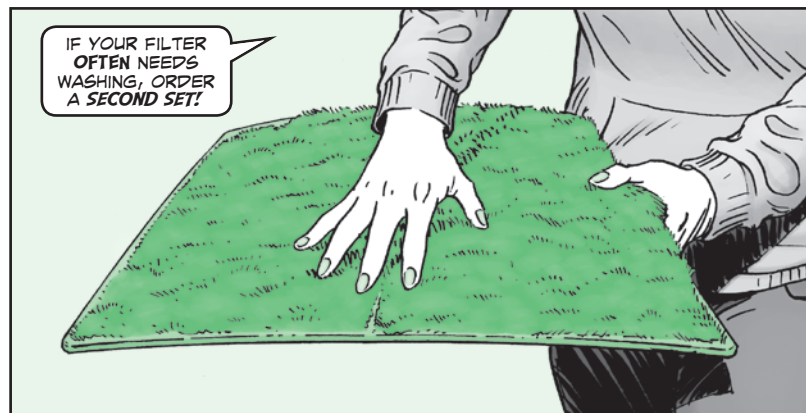
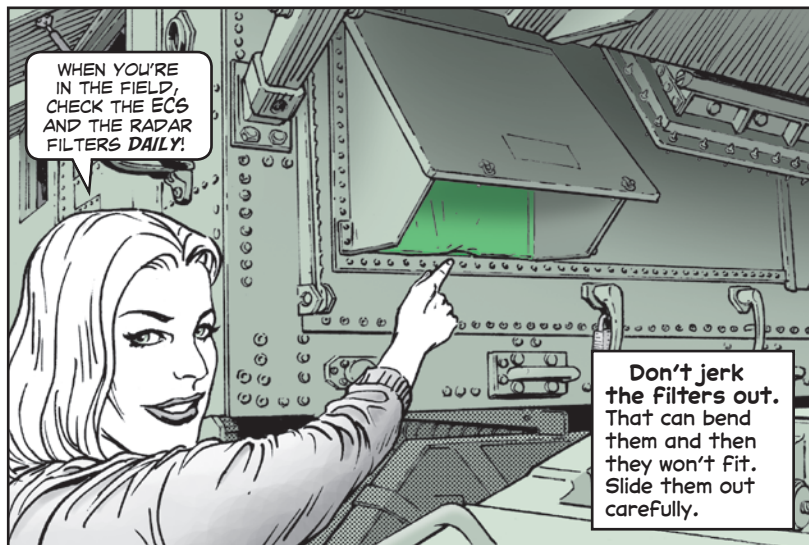
**PS MORE**



If you're not firing, make sure the covers for the two ECS A/Cs are on and secure. Otherwise, water can get in and fry the variable frequency drive (VFD). That's an expensive fix. If covers are missing, order more. In the meantime, use a trash bag or anything that will seal out water.

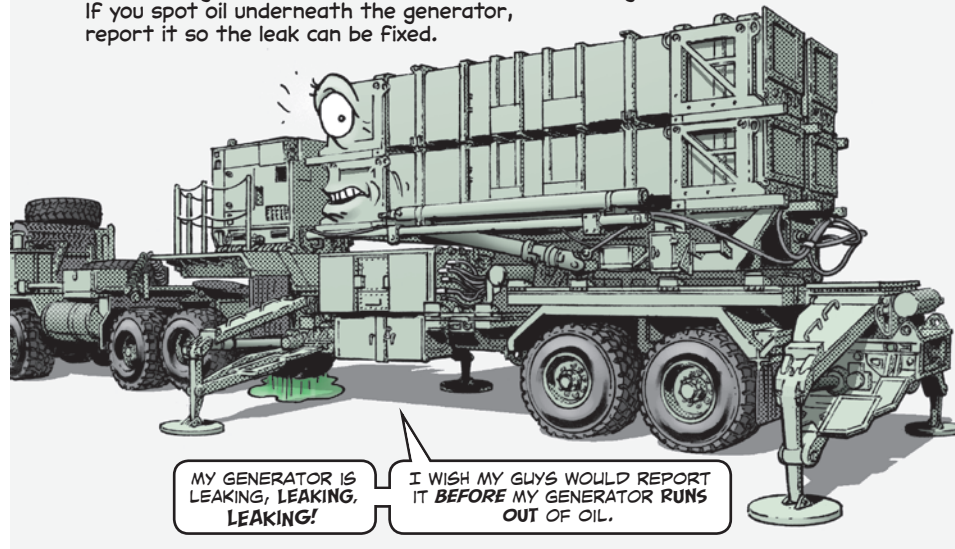


**Keep the radar and ECS filters clean.** If the filters get clogged, count on power supply problems. In the field, check the filters daily. Usually, you can clean them with low-pressure air. If the filters are getting so dirty you need to wash them, consider getting a second set of filters. That way you can keep operating while the washed filters dry.



**When you change the filter for the radar's coolant liquid electron tube (CLET), check for signs of corrosion.** If you spot any, report it. The system may need to be flushed. Corrosion can severely damage the CLET.

**Keep an eye on generator leaks.** Units sometimes let leaks slide. Then leaks get worse and worse, which can hurt the generator. If you spot oil underneath the generator, report it so the leak can be fixed.



WO1 Jeryme Stahley  
Ft Hood, TX

**Editor's note:** We salute your tips! Thanks for sharing your Patriot experience.

PS END



# A Gold Mine of Mine Detector Advice

I THINK I HIT  
THE MOTHER  
LODE!

I WAS JUST  
THINKING THE  
SAME THING!

THERE ARE  
SOME GREAT  
DETECTOR TIPS  
IN HERE!

Dear Editor,

These are a few tips we give our students at the US Army Chemical School on the AN/PSS-14 mine detector:

**Careful with the headset.** Just a little rough handling can damage it. Don't toss it on the ground. Don't jerk on it. Handle with care!

Attach the cord clip for the headset to your uniform. That way the cord's wiring won't be pulled loose if you jerk your head.

Attach  
cord  
clip for  
headset  
to your  
uniform

**Think 3 o'clock when plugging in the electronics unit cable.** The ridge on the rubber casing should be at the 3 o'clock position when you plug in the cable. If you've got it right, the cable connector should slide right in place. To lock the connector, turn the collar, not the cable. Turning the cable can damage wiring.

Make sure the collar isn't out of round. If the collar has gotten banged up, it can't lock the cable in place.

Position ridge  
on electronics  
unit cable  
at 3 o'clock  
position to  
plug in cable

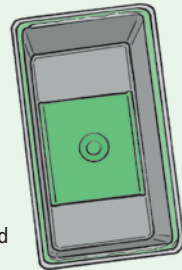
**Check for the rubber seal on the battery box lid.** If it's missing or damaged, moisture can get at the battery. While you're at it, make sure the rubber pad on the lid isn't working loose. The pad keeps the battery in position. If the pad is loose, you could have power problems.

**Before laying the detector on the ground, first remove the battery case from your pocket.**

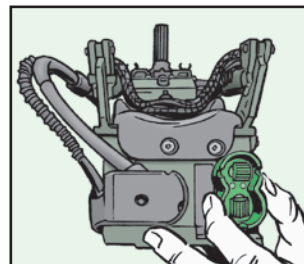
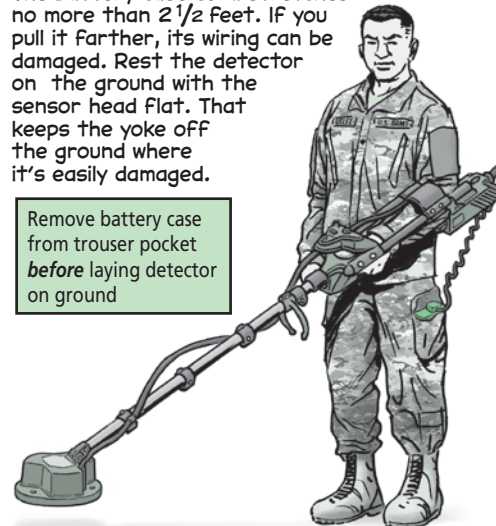
The battery case cord stretches no more than 2 1/2 feet. If you pull it farther, its wiring can be damaged. Rest the detector on the ground with the sensor head flat. That keeps the yoke off the ground where it's easily damaged.

Remove battery case  
from trouser pocket  
before laying detector  
on ground

Seal  
and pad  
in good  
shape and  
secure?



**Adjust the entire pistol grip assembly, not just the grip itself.** That avoids damage to the grip.



**Feel the volume and IR power switches guard for looseness.** If the guard comes off, the switches get damaged in the field. Your repairman can tighten the guard's screws.

**Easy does it with the latch assembly.** If the wand connection is properly seated, the latches should snap in place easily. If they don't, something is wrong. Forcing the latches can break them.

**Take care extending the wand.** If you use too much muscle, the wand can come out completely.

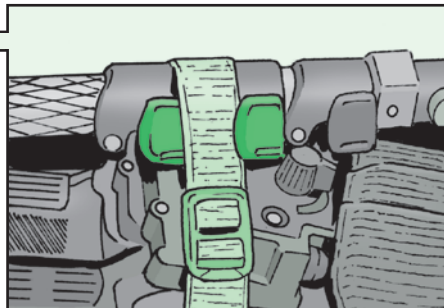


No cell phones! They will distract you from detecting explosive hazards!



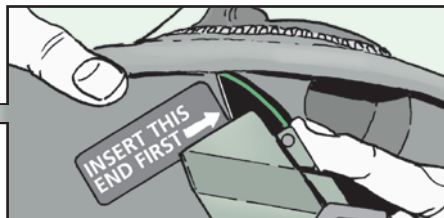
Store detector like this:

When you strap the yoke in the storage bag, tighten the strap hand-tight only. If you force the strap tighter, you can damage the yoke. Put the strap between the second and third cam locks. That keeps the strap from sliding around.

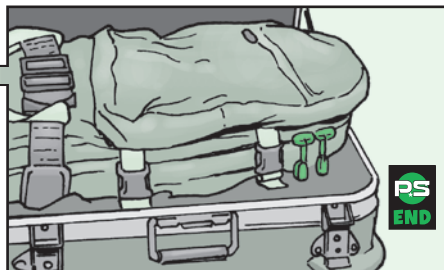


Store the detector so that the front latch fits in the bag's slot. That secures the detector in the bag and prevents it from shifting around.

Tilt the sensor head up and then push it back until it locks in place. Then tilt the head back down flat. Forcing the head straight into the bag can push it out of alignment.



When you put the bag in the carrying case, don't leave the bag's zipper at the 12 o'clock position. That makes it difficult to close the case. Put the zipper to the side.



Turi Gonzales  
Ft Leonard Wood, MO

**Editor's note:** These are indeed a gold mine of mine detector tips. Thanks, Turi.

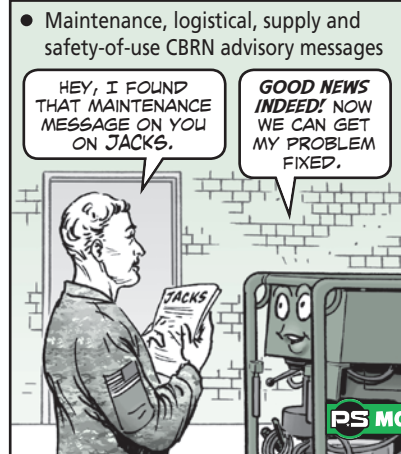
# CBRN Questions? JACKS Has the Facts!

IF YOU WORK WITH CBRN EQUIPMENT, YOU NEED TO KNOW **JACKS** (JOINT ACQUISITION CHEMICAL BIOLOGICAL RADIOLOGICAL NUCLEAR KNOWLEDGE SYSTEM).



HERE ARE SOME OF THE SERVICES JACKS PROVIDES:

- Detailed logistics info on more than 140,000 NSNs and CBRN products
- HAZMAT documents and safety data sheets (SDS)
- Training materials for new CBRN equipment
- Lessons learned
- Training links
- CBRN fact sheets
- Training equipment information
- Code F demilitarization instructions
- Packaging and shipping info
- Shelf life expiration, extension and condemnation info organized by both NSN and lot number
- Maintenance, logistical, supply and safety-of-use CBRN advisory messages



PS MORE



#### JACKS HELPS YOU FIND:

- Advisory messages
- CBRN publications
- Demil instructions
- CBRN related links
- Shelf life status info
- CBRN news and announcements
- Specifications and standards
- CBRN Frequently asked questions

TO ACCESS JACKS, YOU'LL NEED A CAC CARD OR AN ACO ACCOUNT. GO TO:

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

IF YOU RUN INTO PROBLEMS,  
CALL CBRN-IRC AT DSN 793-7349,  
(309) 782-7349,  
TOLL FREE (800) 831-4408,  
OR EMAIL: [cbrn.irc@mail.mil](mailto:cbrn.irc@mail.mil)

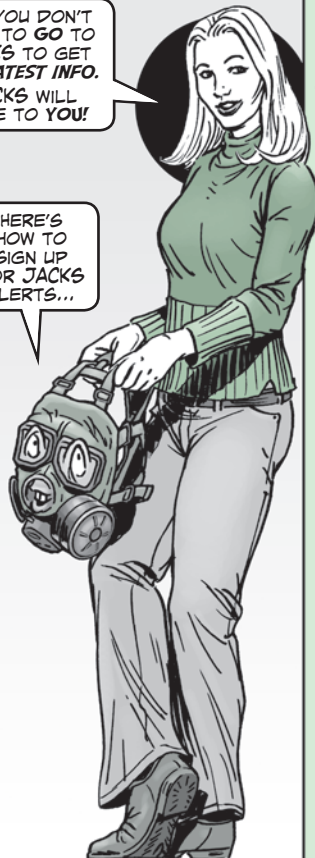
- Kits Make Services Faster!
- New Rules for Shipping Lithium Batteries!
- Get New JBC-P Keyboard
- More Old-Timers Join AOAP Club
- Cheap Pouch Prevents Expensive Damage!

### CBRN Email Alerts

BUT YOU DON'T HAVE TO GO TO JACKS TO GET THE LATEST INFO.

JACKS WILL COME TO YOU!

HERE'S HOW TO SIGN UP FOR JACKS ALERTS...



1. Log in at the JACKS website.
2. From the Community tab drop-down, click My Profile.
3. On the Profile toolbar, click My Subscription.
4. In the first section, **Step 1: Select Alerts**, place a check mark in the box preceding the alerts you want to receive:

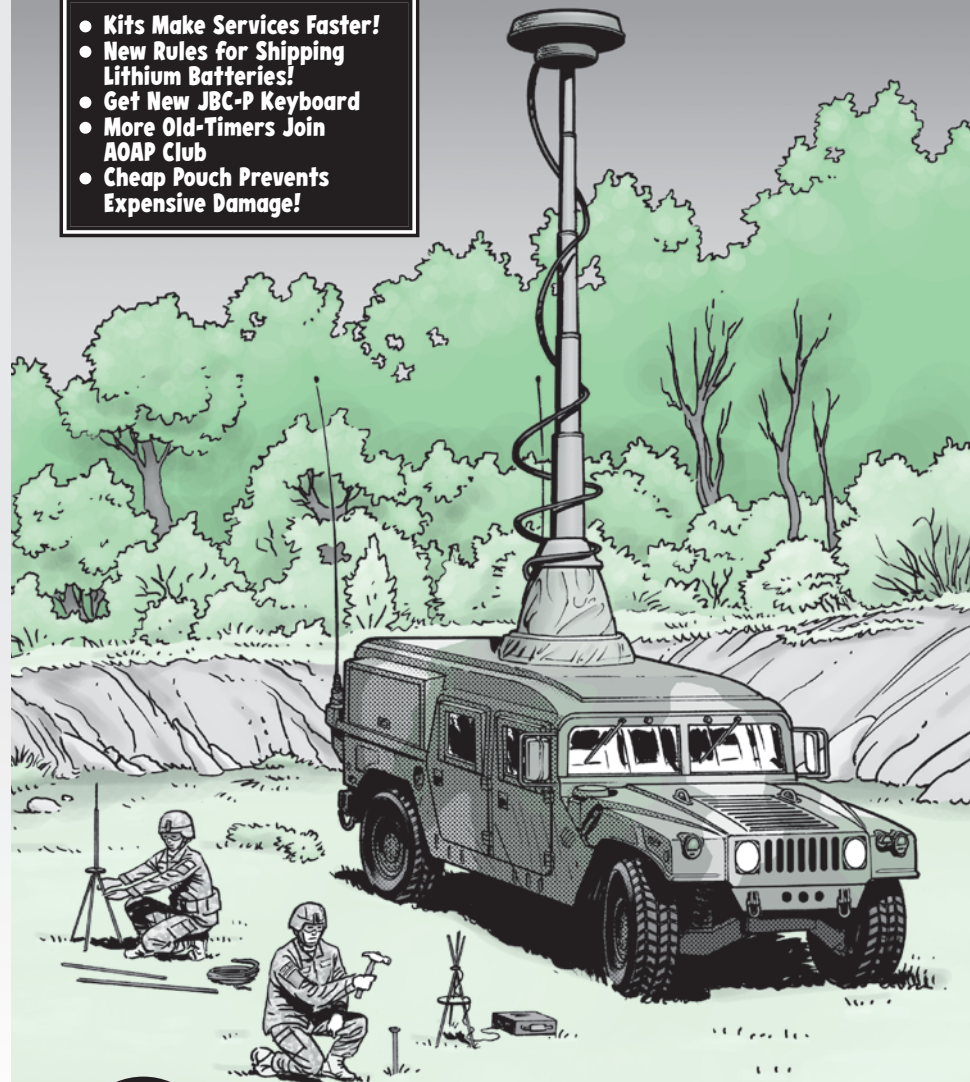
- \_\_\_ CBRN advisory messages
- \_\_\_ Demil instructions
- \_\_\_ New CBRN equipment
- \_\_\_ Hot CBRN news
- \_\_\_ Shelf life updates
- \_\_\_ Chem-Bio Defense Magazine

An alert will be sent to you whenever new information is available in these areas.

You can also have messages filtered by a custom equipment list so you get information only on equipment you're interested in.

5. In **Step 2: Select Alert Frequency**, choose if you want to receive messages daily or weekly. You can also choose no message if no updates have been made that day or week.
6. In **Step 3: Confirm Your Email Address**. Alerts will be sent to the email address in your JACKS profile.
7. In **Step 4: Save Your Subscription**, choose either Save Subscription or Cancel and Exit to save or cancel your alert setting. To modify your subscription, follow the steps above. To cancel, click on Unsubscribe.

PS END

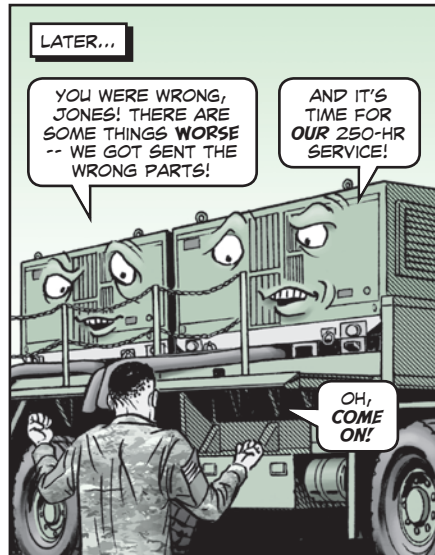


**PS COMMUNICATIONS**

# Kits Make Services Faster!



UGH. THE ONLY THING **WORSE** THAN HAVING TO ORDER ALL THE INDIVIDUAL PARTS FOR 1000-HR SERVICES ON MY 150-KW GENERATOR IS HAVING TO ORDER 'EM FOR 250-HR SERVICES! MAN, THERE'S GOTTA BE A **BETTER WAY!**



LATER...

YOU WERE WRONG, JONES! THERE ARE SOME THINGS **WORSE** -- WE GOT SENT THE WRONG PARTS!

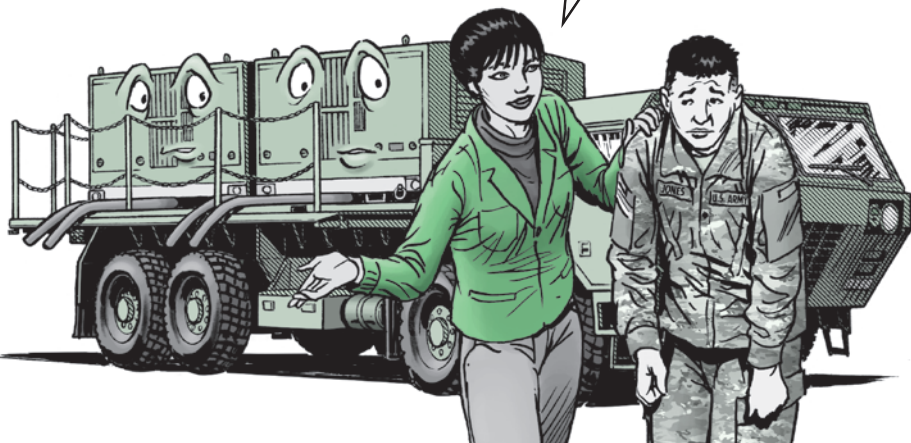
AND IT'S TIME FOR **OUR** 250-HR SERVICE!

OH, COME ON!

EVERY MECHANIC KNOWS THE **FRUSTRATION** OF ORDERING ALL THE INDIVIDUAL PARTS REQUIRED FOR THE 250- AND 1,000-HR SERVICES ON THE 150-KW GENERATOR, NSN 6115-12-337-8494.

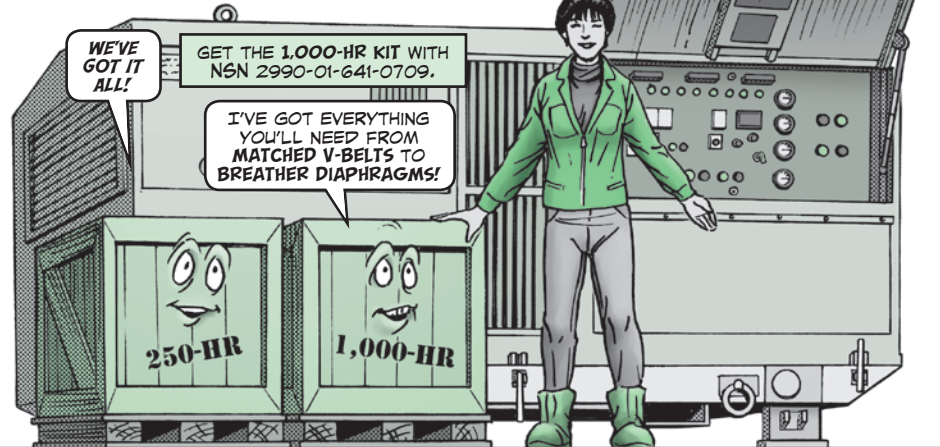
THE PARTS MAY ALL BE LISTED IN CHAP 6 OF TM 9-6115-668-13, BUT IT'S STILL A **TIME-CONSUMING EFFORT!**

AND MAINTENANCE GETS HELD UP IF YOU RECEIVE THE **WRONG** PARTS OR THEY **DON'T** ALL ARRIVE TOGETHER.



TO CUT THROUGH THOSE PROBLEMS, **CECOM** HAS PUT TOGETHER KITS FOR **BOTH** THE 250- AND 1,000-HR SERVICES.

THE 250-HR KIT COMES WITH NSN 2990-01-641-0666.



WE'VE GOT IT ALL!

GET THE 1,000-HR KIT WITH NSN 2990-01-641-0709.

I'VE GOT EVERYTHING YOU'LL NEED FROM **MATCHED V-BELTS** TO **BREATHAR DIAPHRAGMS!**

Item	NSN	Qty
Oil filter element	2940-12-186-7181	1
Gasket	5330-12-156-4524	1
Gasket	5330-12-316-8804	1
Fuel filter element	2940-12-141-2604	1
Gasket	5330-12-156-4806	1
Gasket	5330-12-156-4522	2
Gasket	5330-12-156-5014	3
Gasket	5330-12-174-7775	3
Fuel filter element	2910-12-327-7227	1
Gasket	5330-12-156-4516	6
Fuel filter element	2910-12-122-2772	1
Fuel filter element	2910-12-123-0997	1
Breathar diaphragm	4820-12-325-9239	1

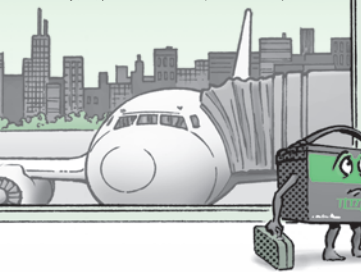
250-HR KIT

THE 1,000-HR KIT CONTAINS THE **SAME** ITEMS AS THE 250-HR KIT WITH THESE **ADDITIONS:**

Item	NSN	Qty
Matched V-belts	3030-12-166-2453	1
Air filter element	2940-12-172-8102	1
Self-locking nut	5310-12-183-0414	1
Preformed packing	5330-12-166-1888	8
Gasket	5330-12-166-4117	8
O-ring	5330-12-304-7689	8
Spring washer	5310-12-142-8171	6
Flat washer	5310-12-176-2267	3
Gasket	5330-12-156-4526	1
O-ring	5330-12-163-4886	1
O-ring	5330-12-304-1480	1



# NEW RULES FOR SHIPPING LITHIUM BATTERIES!



HOLD UP, LITHIUM BATTERIES! THE FAA SAYS YOU CAN'T FLY ON PASSENGER PLANES ANYMORE. YOU'RE NOW CONSIDERED **HAZMAT**.

DANG! THERE GO MY FREQUENT FLYER MILES!

GATE 2A

THE FAA AND THE INTERNATIONAL CIVIL AVIATION ORGANIZATION ISSUED **NEW RULES** IN APRIL 2016 FOR SHIPPING BOTH LITHIUM METAL NON-RECHARGEABLE AND LITHIUM-ION RECHARGEABLE BATTERIES.

THESE ARE THE NEW RULES FOR SHIPPING LITHIUM BATTERIES BY COMMERCIAL CARRIER...



- They **must** be shipped as HAZMAT.
- They **must** be packed following the requirements for Class IX hazardous materials, which includes the box they're packed in.
- The manifest **must** show that they are lithium batteries.
- They **must** be packed by a certified HAZMAT packer
- There are **additional** rules for rechargeable lithium batteries:
  - They **can't** be shipped as spares on passenger planes. But up to two rechargeable batteries less than 160Wh per passenger can be carried on board if the airline approves, but not as checked luggage. And, if the airline approves, two batteries up to 160Wh can be shipped as cargo, but only if they're installed in the equipment they're used in. Batteries more than 160Wh are forbidden on any passenger aircraft.
  - They **must** be at less than 30 percent charge. The state of charge indicator can be used to approximate this. One bar equals around a 20 percent charge.



IF THE RECHARGEABLE BATTERY CAPACITY IS BETWEEN 100WH AND 160WH, THERE ARE **ADDITIONAL** RESTRICTIONS.

AND INDIVIDUAL AIRLINES CAN IMPOSE EVEN MORE RESTRICTIONS.

ANY BATTERY THAT HAS BEEN DAMAGED **CAN'T** BE SHIPPED. HANDLE IT LIKE YOU WOULD A **MISFIRED ROUND**. BECAUSE THE BATTERY HAS BEEN DAMAGED, IT MUST BE TREATED AS A **HAZARDOUS MATERIAL** NOT OTHERWISE SPECIFIED (NOS).



THE FAA COULD IMPOSE A FINE OF UP TO **\$50,000** FOR SHIPPING A BATTERY THAT WAS **NOT** IN COMPLIANCE WITH THIS REGULATION.

ARMY AND AIR FORCE AIRCRAFT WILL ABIDE BY THESE NEW RULES **EXCEPT** IN EMERGENCIES.

ADDITIONAL INFORMATION CAN BE FOUND AT  
[http://www.faa.gov/about/initiatives/hazmat\\_safety/more\\_info/?hazmat=7](http://www.faa.gov/about/initiatives/hazmat_safety/more_info/?hazmat=7)

QUESTIONS? CONTACT LINDA SEUBERT AT (443) 395-3823, OR EMAIL:  
[linda.m.seubert.civ@mail.mil](mailto:linda.m.seubert.civ@mail.mil)

Computers & Software...

## Get New JBC-P Keyboard



The Joint Battle Command-Platform (JBC-P), LIN C05037, is operated by a keyboard unit. But older keyboards, NSNs 7025-01-609-4251, 7025-01-496-9879 and 7025-01-598-1555, are no longer supplied or repaired.

So when you order a JBC-P keyboard, use NSN 7025-01-623-5349. The new keyboard unit is compatible with older systems. Simply connect it with the supplied cable.

For questions, contact item manager Larry Hall at DSN 648-6437, (443) 395-6437, or email:

[larry.j.hall10.civ@mail.com](mailto:larry.j.hall10.civ@mail.com)

840-kW  
TQGs...

# More Old-Timers Join AOAP Club

GEE, I'VE MISSED BEING A MEMBER OF SUCH AN EXCLUSIVE CLUB!

ME, TOO! GOOD T' BE BACK WITH THE 'IN' AOAP CROWD.

## OLD EQUIPMENT, MEET NEW RULES!

THE MEP-PU-810 A/B TACTICAL QUIET GENERATORS (TQGs) HAVE BEEN ADDED BACK INTO THE ARMY OIL ANALYSIS PROGRAM (AOAP).

MANY MEP-PU-810 A/B TQGs HAVE A LOW OPERATIONAL TEMPO. YET THE OIL AND FILTER CHANGE IS STILL BEING DONE AT QUARTERLY INTERVALS.

THIS IS A BIG AND UNNECESSARY EXPENSE!

SO THE ARMY HAS FIGURED OUT HOW TO MAX SAVINGS WITH A NEW POLICY.

FOR MEP-PU-810 A/B TQGs OPERATED LESS THAN 250 HOURS PER YEAR, FOLLOW THESE NEW SERVICE REQUIREMENTS:

- Change the oil and filter every 12 months. Once the TQGs are established in the AOAP program, units should follow the recommended guidance provided by the AOAP laboratory.
- For TQGs operated on a regular basis that exceed the 250 hours, follow recommended manufacturer guidance and change the oil and filter every 250 hours. Once the TQGs are established in the AOAP program, units should follow the recommended guidance provided by the AOAP laboratory.

HERE ARE THE TQGS THAT HAVE BEEN ADDED TO AOAP:

TQG	NSN 6115-	LIN
MEP-PU-810A 840-kW	01-486-4033	G17800
MEP-PU-810B 840-kW	01-486-4032	G17800

QUESTIONS? CONTACT RON GEAN AT DSN 648-6286, (443) 395-6286, OR EMAIL: [ronald.d.gean.civ@mail.mil](mailto:ronald.d.gean.civ@mail.mil)

Night Vision Goggles...

# CHEAP POUCH PREVENTS EXPENSIVE DAMAGE!



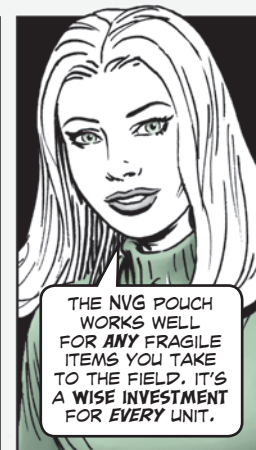
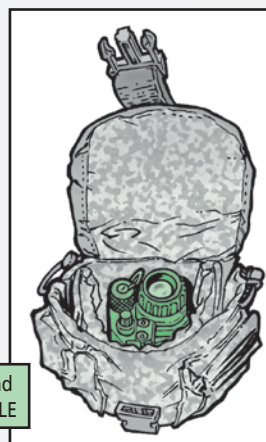
Your night vision goggles (NVG) weren't meant to be stuck in a pocket or backpack when you're not wearing them. One misstep could send you tumbling against something like a rock and—CRACK—your night vision goggles could suddenly go dark.

Avoid damage to your expensive AN/PVS-14 or enhanced night vision goggles (ENVG) with the AN/PVS-14 protective pouch, NSN 8465-01-538-1514, which costs less than \$9. The pouch isn't much larger than an ammo pouch and folds flat when not in use.

The ENVG comes with its own padded carrying case, but it may be too bulky to take to the field.

Store your goggles in the NVG pouch, then insert it in a canteen/general purpose pouch, NSN 8465-01-525-0585. Attach the general purpose pouch to your MOLLE system. You're ready to go and your NVGs are protected but readily available when needed.

Pouch protects NVG and attaches easily to MOLLE







## Get Unit Patches for OCP Uniforms



ARE YOU LOOKING FOR A PATCH FOR THE **NEW** OPERATIONAL CAMOUFLAGE PATTERN (OCP)?

HERE'S A LIST OF NSNs TO HELP YOU ORDER WHAT YOU NEED...

Name	OCP Patch NSN 8455-
100th Training Division	01-654-1453
101st Airborne Division	01-647-5681
104th Training Division	01-654-1456
108th Sustainment Brigade	01-648-0481
108th Training Division	01-654-1458
10th Mountain Division	01-647-6594
10th Sustainment Brigade	01-648-0133
11th Air Defense Artillery Brigade	01-647-9352
11th Armored Cavalry	01-648-3617
11th Aviation Brigade	01-654-2234
11th Military Police	01-654-2682
11th Signal Brigade	01-654-2223
12th Aviation Brigade	01-647-6411
13th Finance Group	01-654-3211
14th Military Police Brigade	01-647-9370
155th Armored Brigade	01-647-8970
15th Sustainment Brigade	01-648-0139
16th Combat Aviation Brigade	01-647-5634
16th Engineer Brigade	01-654-1673
16th Military Police Brigade	01-654-2227
16th Sustainment Brigade	01-543-3202
171st Infantry Brigade	01-647-8932
172d Infantry Brigade	01-648-3385
173rd Airborne Brigade Combat Team	01-647-5744

Name	OCP Patch NSN 8455-
17th Combat Aviation Brigade	01-647-6413
17th Field Artillery Brigade	01-654-2181
1889th Regional Support Group	01-654-3586
18th Aviation Brigade	01-654-2235
18th Engineer Brigade	01-648-3386
18th Field Artillery Brigade	01-654-2183
18th Military Police Brigade	01-654-1657
19th Sustainment Command	01-647-5762
1st 75 Ranger Regiment	01-647-6406
1st Armored Division	01-647-5745
1st Aviation Brigade	01-654-1659
1st Cavalry Division	01-647-5743
1st Combat Support Brigade	01-654-3205
1st Engineer Brigade	01-654-1460
1st Infantry Division	01-647-6419
1st Medical Brigade	01-648-4202
1st Signal Brigade	01-647-8935
1st Sustainment Brigade	01-654-2776
20th Aviation Brigade	01-654-2500
20th Engineer Brigade	01-648-3620
214th Fires Brigade	01-648-3630
228th Signal Brigade	01-648-3625

Name	OCP Patch NSN 8455-
23rd Quartermaster Brigade	01-654-3583
24th Infantry Division	01-647-5742
25th Infantry Division	01-647-6596
28th Infantry Division	01-647-5684
2nd 75 Ranger Regiment	01-647-6408
2nd Armored Division	01-647-5756
2nd Infantry Division	01-647-6421
300th Military Police Command	01-648-3622
30th Armored Brigade	01-647-8860
30th Medicare Brigade	01-654-2240
31st Chemical Brigade	01-647-8863
32nd Army Air Defense Command	01-654-1652
33rd Infantry Brigade Combat Team	01-654-1277
359th Signal Brigade	01-647-9803
35th Air Defense Artillery Brigade	01-647-9371
35th Engineer Brigade	01-648-3638
35th Signal Brigade	01-654-2225
361st Civil Affair Brigade	01-647-9350
36th Engineer Brigade	01-648-0135
36th Sustainment Brigade	01-654-3581
372d Engineer Group	01-648-4207
37th Infantry Brigade Combat Team	01-648-3383
38th Sustainment Brigade	01-654-3579
39th Infantry Brigade	01-647-8944
3d Cavalry Regiment	01-648-3619
3rd 75 Ranger Regiment	01-647-6414
3rd Armored Division	01-647-5749
3rd Infantry Division	01-647-6423
3rd Signal Brigade	01-654-2189
3rd Sustainment Brigade	01-654-3198
3rd Sustainment Command	01-647-8859

Name	OCP Patch NSN 8455-
40th Infantry Division	01-647-5760
41st Fires Brigade	01-648-3629
41st Infantry Brigade	01-654-1285
42nd Infantry Division	01-647-5665
42nd Military Police Brigade	01-654-2749
43th Military Police Brigade	01-654-1672
449th Aviation Brigade	01-648-0485
44th Medical Brigade	01-654-1664
45th Infantry Brigade	01-648-3384
45th Sustainment Brigade	01-648-0137
48th Chemical Brigade	01-654-3200
48th Infantry Brigade Combat Team	01-654-1725
49th Military Police Brigade	01-648-3612
4th Infantry Division	01-647-6592
4th Maneuver Enhancement Brigade	01-654-3227
4th Sustainment Brigade	01-648-0136
4th Sustainment Command	01-654-1634
501st Military Intelligence Brigade	01-647-9796
504th Battlefield Surveillance Brigade	01-647-9810
525th Battlefield Surveillance Brigade	01-648-4200
53rd Infantry Brigade	01-654-1648
555th Engineer Group	01-648-0130
55th Sustainment Brigade	01-654-2769
58th Infantry Brigade Combat Team	01-647-8978
62nd Medical Brigade	01-654-2498
65th Fires Brigade	01-654-3580
65th Medical Brigade	01-654-3213
66th Aviation Brigade	01-654-2246
67th Battlefield Surveillance Brigade	01-647-8934
69th Air Defense Artillery	01-647-6404

Name	OCP Patch NSN 8455-
6th Cavalry Brigade	01-654-2177
75th Fires Brigade	01-647-5763
75th Ranger Regiment	01-647-6405
75th Ranger Regiment Special Troop Battalion	01-647-6595
75th Training Division	01-654-1284
76 Infantry Brigade	01-654-2499
77th Aviation Brigade	01-654-2774
77th Sustainment Brigade	01-654-1296
78th Training Division	01-654-1361
7th Army	01-648-3381
7th Infantry Division	01-647-6593
7th Signal Brigade	01-647-8966
7th Sustainment Brigade	01-654-1668
800th Military Brigade (333d Military Police)	01-648-4201
807th Medical Command	01-647-8979
80th Training Division	01-654-1363
81st Armor Brigade	01-654-1700
82nd Airborne Division	01-647-5680
84th Training Division	01-654-1368
85th Training Division	01-654-1716
87th US Army Reserve Support Command	01-654-1448
8th Army	01-647-5755
8th Military Police Brigade	01-647-9804
91st Training Division	01-654-1669
926th Engineer Brigade	01-648-0480
95th Civil Affairs	01-648-4205
95th Training Division	01-654-1450
98th Training Division	01-654-1452
Alabama ARNG	01-652-6164
Alaska ARNG	01-652-7375
Arizona ARNG	01-652-6706
Arkansas ARNG	01-652-7383
Army Service Tape	01-589-8264
Army Star Logo Patch	01-646-1038
California ARNG	01-652-7777

Name	OCP Patch NSN 8455-
Colorado ARNG	01-652-8171
Command & General Staff College	01-647-8928
Connecticut ARNG	01-652-6163
Defense Language Institute for Logistics Center	01-647-9808
Delaware ARNG	01-652-5008
First United States Army	01-654-1269
Florida ARNG	01-652-5081
Georgia ARNG	01-654-1683
Guam ARNG	01-654-2232
Hawaii ARNG	01-652-5011
Human Resources Command	01-647-9369
Idaho ARNG	01-652-6705
Illinois ARNG	01-647-8938
Indiana ARNG	01-652-6162
Insignia, 1LT	01-589-8158
Insignia, 1SG	01-589-7035
Insignia, 2LT	01-589-8174
Insignia, BG	01-589-7768
Insignia, COL	01-589-8032
Insignia, CPL	01-589-7026
Insignia, CPT	01-589-8076
Insignia, CSM	01-589-7756
Insignia, CW1	01-589-7185
Insignia, CW2	01-589-7219
Insignia, CW3	01-589-7221
Insignia, CW4	01-589-7164
Insignia, CW5	01-589-7174
Insignia, GEN	01-589-7799
Insignia, LTC	01-589-8087
Insignia, LTG	01-589-7788
Insignia, MAJ	01-589-8134
Insignia, MG	01-589-7776
Insignia, MSG	01-589-7746



Name	OCP Patch NSN 8455-
Insignia, PFC	01-589-7634
Insignia, PVT	01-589-7627
Insignia, SFC	01-589-7646
Insignia, SGM	01-589-7231
Insignia, SGT	01-589-7310
Insignia, SPC	01-589-7292
Insignia, SSG	01-589-7302
Mississippi ARNG	01-652-7379
Missouri ARNG	01-652-7376
Montana ARNG	01-652-8178
Multi-National Force Iraq	01-648-4209
National Training Center, Ft Irwin	01-648-3636
Nebraska ARNG	01-652-8176
Network Enterprise Technology Command	01-647-8933
Nevada ARNG	01-647-8865
New Hampshire ARNG	01-652-7378
New Mexico ARNG	01-652-6157
New York ARNG	01-652-6717
North Carolina ARNG	01-652-8172
North Dakota ARNG	01-652-6764
Ohio ARNG	01-652-8449
Oklahoma ARNG	01-652-8450
Oregon ARNG	01-652-6715
Pennsylvania ARNG	01-652-6177
Puerto Rico ARNG	01-652-5006
Rhode Island ARNG	01-652-7788
Second Medical Brigade	01-654-2239
South Carolina ARNG	01-652-6175
South Dakota ARNG	01-647-8866
Special Operations Command	01-648-4198
Special Ops JTF - Afghanistan	01-648-0483
Tab, Airborne	01-647-5683

Name	OCP Patch NSN 8455-
Tab, Army Ranger	01-647-8929
Tab, Mountain	01-647-6409
Tab, Sapper	01-648-0131
Tab, Special Forces	01-647-9368
Tennessee ARNG	01-652-5003
Texas ARNG	01-652-6167
United States Forces Korea	01-647-5667
US Army Military Police School	01-647-8930
US Army Recruiting Command	01-648-8968
US Army Reserve Command	01-654-2238
US Army ROTC Cadet Command	01-647-9373
US Southern Command	01-647-9795
Utah ARNG	01-652-7374
Vermont ARNG	01-652-8448
Virgin Islands ARNG	01-647-8974
Virginia ARNG	01-652-7778
Washington ARNG	01-652-7783
West Virginia ARNG	01-652-6166
Wisconsin ARNG	01-652-7781
Wyoming ARNG	01-652-5080



...CONTACT THE DLA CUSTOMER  
INTERACTION CENTER TOLL-FREE AT  
(877) 352-2255, DSN 661-7766,  
OCONUS DSN (312) 661-7766,  
(269) 961-7766, OR EMAIL:  
[dlacustomercenter@dlamail](mailto:dlacustomercenter@dlamail)



# CAT Gets Updated Single-Slot Buckle

AS A DEPLOYED SOLDIER,  
YOU MAY HAVE RECENTLY  
GOTTEN AN **UPDATED**  
COMBAT APPLICATION  
TOURNQUET™ (CAT).

YES. I'M  
WONDERING  
**HOW IT'S  
CHANGED**  
AND HOW I  
CAN USE IT.

THE CAT DESIGN WAS UPDATED,  
RESULTING IN **TWO DIFFERENT VERSIONS**  
BEING USED IN THE FIELD.  
HOWEVER, BOTH FALL UNDER  
NSN 6515-01-521-7976.

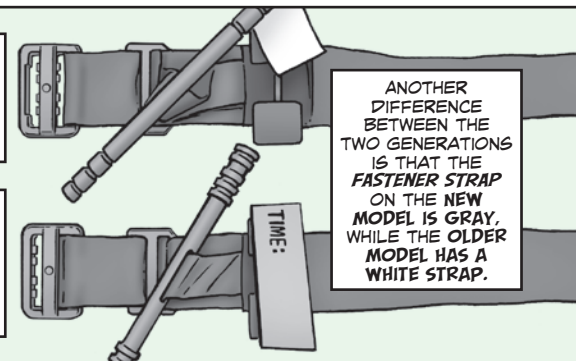
**EVERY DEPLOYED SOLDIER  
CARRIES A CAT ON THE  
BATTLEFIELD. BLEEDING TO DEATH  
IS THE MOST COMMON CAUSE OF  
SURVIVABLE DEATH FOR WOUNDED  
WARFIGHTERS. THE CAT OFFERS  
LIFE-SAVING CARE TO YOURSELF OR A  
BUDDY IN A WORST-CASE SCENARIO.**

THE NON-PNEUMATIC CAT IS A  
SMALL, LIGHTWEIGHT TOURNQUET  
DESIGNED TO COMPLETELY STOP  
ARTERIAL BLOOD FLOW TO AN  
INJURED LIMB.



THE GENERATION 6 CAT MODEL  
HAS **TWO SLOTS** ON THE BUCKLE  
AND CAN BE USED TO EITHER  
DOUBLE-ROUTE (BUDDY CARE)  
OR SINGLE-ROUTE (SELF-CARE)  
THE BELT.

THE NEWER CAT, GENERATION 7,  
FEATURES A SINGLE-ROUTING  
BUCKLE THROUGH WHICH YOU  
FEED THE TOURNQUET BELT  
BEFORE TIGHTENING IT WITH  
THE WINDLASS (TEXTURED  
BLACK ROD).



ALSO, THE DEVICE'S LOT NUMBER AND "G7" ARE VISIBLE ON THE NEW CAT AND THROUGH THE MANUFACTURER'S PACKAGING.



I HAVE A  
GEN 6 CAT.  
DO I HAVE  
TO **REPLACE**  
IT WITH  
THE NEWER  
VERSION?



YEAH. I'M  
**WORRIED**  
MY GEN 6  
CAT IS **LESS**  
EFFECTIVE  
THAN THE  
GEN 7.

THE GEN 7 CAT  
SINGLE-SLOT BUCKLE IS  
DESIGNED FOR **FASTER AND  
EASIER APPLICATION**. BUT  
THE ARMY STRESSES THAT  
**BOTH MODELS  
ARE EFFECTIVE!**

BOTH HAVE BEEN TESTED  
AND ARMY MEDICS ARE  
TRAINED ON BOTH VERSIONS.



**CAREFULLY READ**  
THE PRINTED  
INSTRUCTIONS  
THAT CAME WITH  
YOUR CAT.

**KEEP THE**  
INSTRUCTIONS  
FOR REFERENCE  
AND REFRESHER  
TRAINING.

THE CAT IS A SINGLE-USE ITEM AVAILABLE FOR ORDER THROUGH UNIT SUPPLY CHANNELS USING NSN 6515-01-521-7976.

**PS END**

## PS Mag Live!



Half-Mast on Facebook:  
<https://www.facebook.com>  
Log in and do a Facebook search for  
**Half-Mast**

PS Magazine on Facebook:  
<https://www.facebook.com>  
Log in and do a Facebook search for  
**PS Magazine**

PS Magazine/Half-Mast on Twitter:  
<https://twitter.com/login>  
Log in and do a Twitter search for  
**@Half-MastPSMag**



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Email: [usarmy.redstone.logsa.mbx.psmag@mail.mil](mailto:usarmy.redstone.logsa.mbx.psmag@mail.mil)



Download the PS mobile app:

**ANDROID**

<https://play.google.com/store/apps/details?id=mil.logsa.army.psmag&hl=en>

**APPLE**

<https://itunes.apple.com/us/app/p.s.magazine/id1082232259?mt=8>

# PS Magazine: Official but Optional?



CLOE, at the top  
of the PS table of  
contents, there's  
a sentence that  
reads...

... "Application  
of the  
information is  
optional with  
the user..."

...what does it mean? Is  
PS official?

**S**

**C** you bet!

is it Optional?

**S**

**C** also affirmative

so isn't that conflicting  
advice?

**S**

**C** not really

THE INFORMATION IN  
**PS** IS **OFFICIAL** BECAUSE  
**EVERY** ARTICLE IS  
REVIEWED AND APPROVED  
BY THE PROPONENT  
THAT OVERSEES THAT  
PROCEDURE OR PIECE OF  
EQUIPMENT.

SO WHAT YOU READ  
IN **PS** IS WHAT  
HQDA, AMC, THE LIFE  
CYCLE MANAGEMENT  
COMMANDS AND OTHER  
AUTHORITIES **WANT**  
OPERATORS, MECHANICS  
AND SUPPLY PERSONNEL  
TO KNOW AND DO IN  
RELATION TO THEIR  
EQUIPMENT OR TASKS.

THE INFO IS **OPTIONAL**  
BECAUSE WE KNOW THAT  
COMMANDERS MUST WORK  
WITH LIMITED MAINTENANCE  
BUDGETS. AND SOMETIMES  
WE GIVE INSTRUCTIONS  
FOR MAKING TOOLS OR  
SUGGEST EQUIPMENT  
IMPROVEMENTS THAT  
ARE GREAT IDEAS BUT  
EXPENSIVE.

BECAUSE WE CAN'T TELL COMMANDERS HOW TO SPEND THEIR MAINTENANCE DOLLARS,  
THEY MUST DECIDE WHETHER TO FOLLOW THE INFO IN **PS**. BUT THEY'RE SMART IF  
THEY DO BECAUSE WE'VE GOT THE **LATEST AND GREATEST WORD** STRAIGHT FROM THE  
SOURCE. WE'RE ALSO ABLE TO GET UPDATES OUT MUCH **FASTER** THAN MOST TMS.

THERE **ARE** SKEPTICS WHO  
QUESTION OUR VALIDITY, USUALLY  
BECAUSE OF OUR COMIC-STYLE  
ART. AR 700-138, **ARMY LOGISTICS**  
**READINESS AND SUSTAINABILITY**  
(FEB 04), EXPLAINS OUR MISSION.

SECTION 5-13 ON PAGE  
69 STATES THAT **PS** IS AN  
**OFFICIAL TECHNICAL BULLETIN**  
AND READING IT SHOULD  
BE A **REGULAR PART** OF  
MAINTAINING UNIT READINESS.

### 5-13. The Preventive Maintenance Monthly

This is an official technical bulletin published monthly by DA and distributed throughout the Army. It is intended to enhance materiel readiness by identifying and emphasizing proper maintenance and supply procedures. Review of PS magazine should be a regular part of unit readiness initiatives.

-AR 700-138





# COSIS Inspections Vital to Readiness

MASTER SERGEANT HALF-MAST, I WAS TOLD I NEED TO DO COSIS ON MY SUPPLIES IN STORAGE. SO WHERE CAN I BUY SOME COSIS?

SORRY, PRIVATE—YOU CAN'T BUY COSIS.

COSIS STANDS FOR CARE OF SUPPLIES IN STORAGE, WHICH IS A CUSTODIAL RESPONSIBILITY.

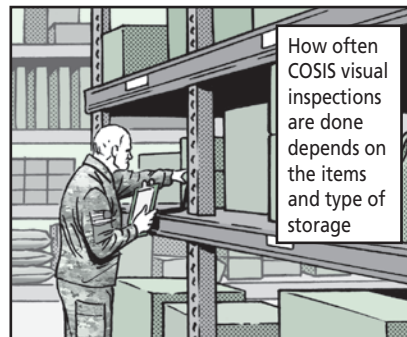


COSIS IS COVERED IN VOLUME 5 OF DOD MANUAL 4140.01, DOD SUPPLY CHAIN MATERIEL MANAGEMENT PROCEDURES: DELIVERY OF MATERIEL.

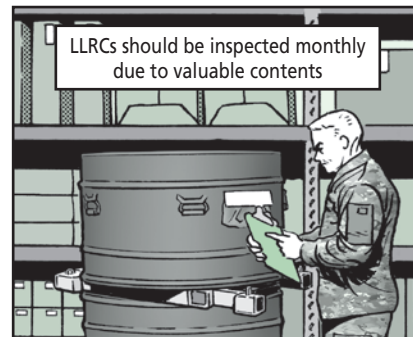
COSIS INSPECTIONS ARE NECESSARY TO ENSURE ARMY MATERIEL IS READY-FOR-USE OR ISSUE.

DONE RIGHT, COSIS INSPECTIONS ARE A FAST, INEXPENSIVE AND EFFECTIVE WAY TO IDENTIFY PROBLEMS WITH ARMY ITEMS AND ASSETS BEFORE THEY DETERIORATE DUE TO LACK OF PROPER CARE.

THINK OF COSIS LIKE PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) FOR SUPPLIES IN STORAGE!



How often COSIS visual inspections are done depends on the items and type of storage



LLRCs should be inspected monthly due to valuable contents



HOW DO I DO A COSIS INSPECTION?

OUR UNIT HAS SO MUCH STUFF IN OUR WAREHOUSE AND IN OUTSIDE STORAGE, I DON'T KNOW WHERE TO BEGIN.



DON'T SWEAT IT, SOLDIER. LET'S LOOK AT THE BASICS FIRST.



A COSIS INSPECTION MEANS THAT YOU'LL NEED TO...

1. Check storage areas for insect infestation, rodents or other pests that can damage stocks.
2. Check storage areas for water leaks that may cause fungi, mildew or spoilage.
3. Inspect items for any water that may have pooled on packages, drums or long-life reusable containers (LLRCs).
4. Identify and properly label items with military markings per MIL-STD 129, Military Marking for Shipment and Storage. Make sure all markings are legible!

PS MORE

5.

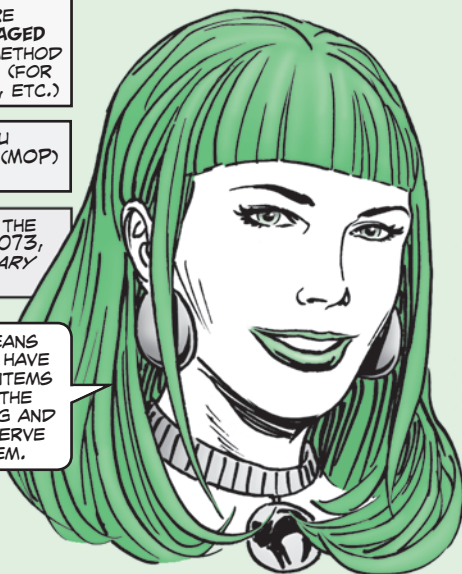
MAKE SURE STORED ITEMS ARE **PROPERLY PRESERVED AND PACKAGED** USING A MILITARY PRESERVATION METHOD AND DATE OF UNIT PRESERVATION (FOR EXAMPLE, "M41-4/02" METHOD 41, ETC.)

PACKAGE MARKINGS TELL YOU **WHICH** METHOD OF PRESERVATION (MOP) WAS USED ON THE ITEM.

THE PACKAGING SHOULD MATCH THE MOP AS DEFINED IN MIL-STD-2073, **STANDARD PRACTICE FOR MILITARY PACKAGING.**

IF ITEMS ARE **INCORRECTLY** PRESERVED AND PACKAGED, YOU MAY NEED TO **RE-PRESERVE AND REPACKAGE** THEM TO **AVOID** DETERIORATION.

THAT MEANS YOU MAY HAVE TO **OPEN** ITEMS TO **FIX** THE PACKAGING AND **RE-PRESERVE** THE ITEM.



6. Check humidity indicators on LLRCs and change desiccants as needed. For a detailed article on humidity indicators, see Pages 19-21 in PS 752:

<https://www.logsa.army.mil/psmag/archives/PS2015/752/752-19-21.pdf>

7. Inspect shelf-life (SL) items and assign condition codes by properly identifying, managing and using SL items on first-in first-out basis. This avoids costly waste. Never open an SL item before use, since that makes it deteriorate faster. You'll find more shelf-life pointers on Pages 50-51 in PS 710:

<https://www.logsa.army.mil/psmag/archives/PS2012/710/710-50-51.pdf>

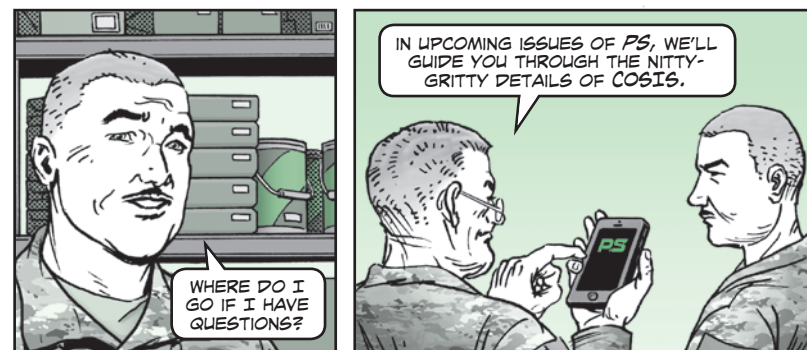
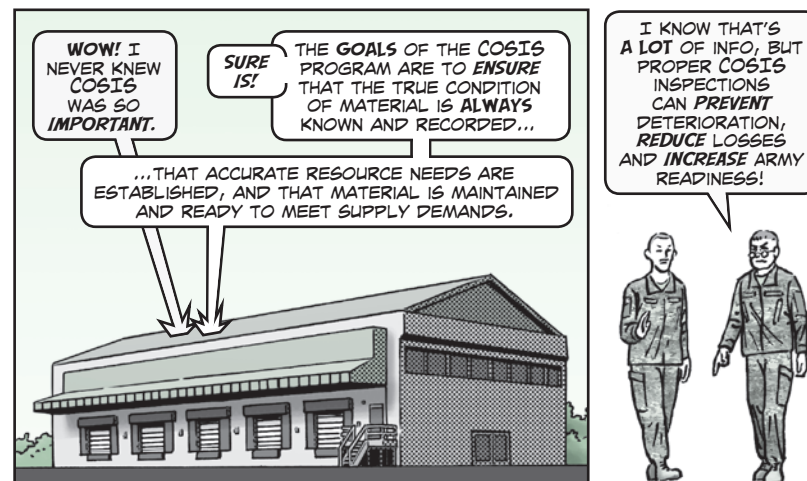
8. If you have stored items that are subject to electrostatic discharge (ESD), make sure they are clearly marked and handled with an ESD field service kit when not in their protective packaging. Also ensure that the packaging isn't perforated, stapled or opened. ESD items are extremely sensitive and might fail if damaged by improper handling or packaging. To learn how proper packaging protects repair parts, see Pages 40-41 in PS 752:

<https://www.logsa.army.mil/psmag/archives/PS2015/752/752-40-41.pdf>

9. Store supplies in the proper environment, not exposed to unnecessary elements. Find out what type of storage your item requires by looking at the "Army Packaging" tab in FED LOG. Check the Type of Storage (TOS) code. The TOS tells you how and where to store items to keep them safe. Learn more about protecting components in storage on Pages 52-57 in PS 740:

<https://www.logsa.army.mil/psmag/archives/PS2014/740/740-52-57.pdf>

10. Last, once you determine an item's condition, record it in GCSS-Army. That way, when the item is needed, it can be requested quickly through the supply system.



IN THE MEANTIME, FOR COSIS GUIDANCE, CALL THE LOGISTICS SUPPORT ACTIVITY'S PACKAGING, STORAGE AND CONTAINERIZATION CENTER AT DSN 795-5319, (570) 615-5319, OR EMAIL: [usarmy.tyad.usamc.mbx.pt@mail.mil](mailto:usarmy.tyad.usamc.mbx.pt@mail.mil)

**PS** END

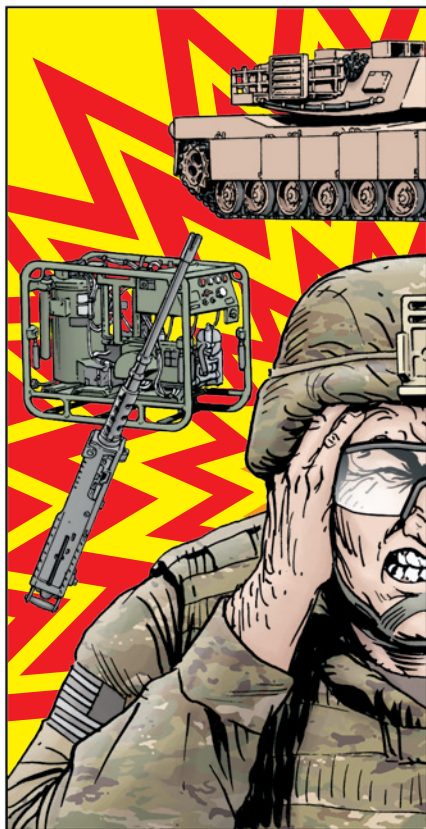
DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for the TB 43-PS-Series.

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



# LOUD NOISE

## HARMS YOUR HEARING!



# WEAR HEARING PROTECTION!