

Kit!



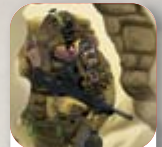
AVP



CMP



OSP



SSP



TSSP

Land Equipment Programmes

LE Teams page 16,17



CHAIN GUN L94A1

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Welcome to KiT! 84 Summer 2013

KiT On-Line - On the 'new' Defence Intranet. KiT can now be found on DE&S home page and Land Equipment home page. The address is:

<http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/DES/Organisations/Orgs/COMLand/LandEqpt/Pages/KiTMagazine.aspx>

(For future use, this link will work on the pdf version on-line, to add to your favorites)

However a simple search on the Intranet of 'KiT magazine' will provide the link.

All queries regarding Distribution, Subscription, Back Copies etc. The contacts are opposite. Please note the change of email address.

As usual, if you have something that may be of interest to the wide tri-service readership then please get in touch.

You can call on the work mobile: [REDACTED] or [REDACTED]. You can email too on MOD network to [REDACTED]. The external address is [REDACTED].

New address is:
DE&S LE KIT,
Elm 3b, #4330, Abbey Wood, Bristol. BS34 8JH

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Distribution If you wish to be added to the KiT! distribution list or wish to amend the quantities that you already receive, ring **Bicester on**

Email: [REDACTED]

Recent copies of KiT! can only be obtained from Bicester, request by Issue number at the address above. All issues of KiT! may be accessed at Defence Intranet.

Poster reproductions of KiT pages are available in various sizes (A3, A2 & A1). Contact, Williams Lea with your requirements: **Tel:** [REDACTED] **email:** [REDACTED]



KiT! binders are back! - they are now available on the Banner Stationary Contract, order using P2P Product Code: 0202 600. Title: Kit Binder for filing KiT Magazine - Binder.

KiT! magazine is unclassified and should be distributed to reach the widest possible readership. KiT! may be accessed on the Defence Intranet by running a search on 'kit magazine.' Follow the link, all issues are available grouped by years. Recent copies are also available on ArmyNet. (AKX & CESO).

KiT! magazine is published quarterly on behalf of D Land Equipment. There are no restrictions on the reproduction of articles for Service use; however, if articles are incorporated into other publications, copies of each should be forwarded to the KiT! Editor.



Technical information in this magazine is for guidance only. Always refer to the relevant AESP, EMER or other authoritative technical document when working on equipment.



Made from 100% recycled material



ROAD SAFETY

HOME SAFE - AT ANY COST
DON'T LET YOUR JOURNEY HOME
BECOME YOUR FINAL DESTINATION



Being Dead embarrassed, is better than being Dead. Since December 2011, Eight Service Personnel have been Killed while walking back to barracks after a night out.

TAKE A TAXI LIVE TO FIGHT
ANOTHER DAY

Temporary Loans for Transport can be made through your Duty Officer at the Gate.

SURVEILLANCE SYSTEM AND RANGE FINDER

SSARF - NSN: 5855-99-134-8975

There have been instances of failure with the SSARF Tripod NSN 6650-99-401-5112 The pins that secure the Tripod legs (1) have become loose and have fallen into the Tripod body.



SSARF Tripod



The Tripod continues to be an L class item but instances of pin failure are to be reported to:

DES LE SSP-Del-STA-SCM-CATOE

ACOG/LDS AND MUNS

Lens pens for the ACOG/LDS and MUNS are no longer part of the CES and cannot be demanded. Users are requested to use 5855-99-967-7941 (LENS CLEANING CLOTH) as a viable lens cleaning replacement.



Lens Pen

FIST LDS

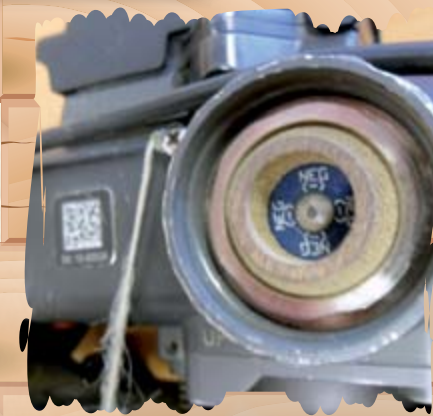
1240-99-839-6503

A number of FIST LDS have been returned with damage to the Graticule Illuminating / Battery Housing.



Common issues:

- Damage due to strikes/knocks
- Over tightening of the battery cap
- Cross threading of battery cap allowing ingress of moisture/debris
- Corrosion of battery terminal resulting in intermittent illumination faults.



Users are asked to:

- Take care when placing the weapon in stowage or on hard surfaces
- Inspect the battery seal/gasket NSN: 5330-20-006-6103 for signs of perishing and replace if necessary
- Remove any debris from the battery cap threads before replacing battery cap to prevent cross threading.

SOLDIER SYSTEM PROGRAMMES (SSP) EQUIPMENT ON MJDI

Soldier System Programmes now has sight of unit holdings/demands on MJDI.

Units are requested not to over demand and stockpile spares unnecessarily.

REPLENISHMENT OF P CLASS ITEMS

The "Replenishment" button on MJDI should be disabled by the unit MJDI administrators for all P Class items.

STOP IT!



challenger chat

Starting Procedure

The CV12 engine fitted to CR2 has two starter motors, necessary due to the high cranking loads especially at low ambient temperatures.

It is essential that the DUAL START switch on the DIP is in the central position so that both starter motors engage when the engine is started.

Selection of either A or B bank starter will overload the selected motor and will cause premature failure. The VICs will not signal the rack in the FIP to move to a fuelling position until the engine is turning over at 60 rpm - **a single starter motor is unable to achieve this cranking speed at low temperatures so the engine will not start.**

AESP 2350-P-102-201 Chapter 1-11 states: DUAL START switch - A gated three-position toggle switch.

In the central position both ME starter motors are operated when the RUN/START switch is set to START. If a fault occurs in one starter motor, the defective motor can be isolated by moving the switch to either the 'A' or 'B' position, thus enabling the serviceable motor to be operated independently.

Failure of either starter motor will not be apparent to the driver as the engine will turn over on the functioning starter with the dual start switch in the central position. Starting the engine with one starter motor should only be attempted in an emergency. It is essential that correct operation of the starter motors is checked IAW AESP 2350-P-102-601 Table 5 Serial 6.5 which states:



Check operation of A and B bank starter motors individually at normal working temperature.

Failure of either starter motor should be reported immediately so as to not overload the serviceable starter.

It is also a REME responsibility to check that both starter motors are working correctly.

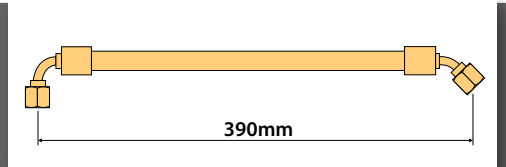
AESP 2350-P-102-532 Schedule 7 (Preparation for road test) states:

- 1.9 With the MAIN ENGINE DUAL STARTER switch on the DIP in the A position carry out correct starting up procedure. Ensure that the fuel pump, air cleaner DEF and solenoids in the DSCB are heard energising and that the engine starts.
- 1.10 Stop MAIN ENGINE
- 1.11 With the MAIN ENGINE DUAL STARTER switch on the DIP in the B position carry out correct starting up procedure. Ensure that the fuel pump, air cleaner DEF and solenoids in the DSCB are heard energising and that the engine starts.



TN54E brake hose

The addition of electric fans to CR2 and CRARRV raised the possibility of a foul occurring between the Electric Fan Control Box (EFCB) and the hose that connects the TN54E brake slave cylinder to the fixed hydrostatic brake line (see KIT82 page 14). It is normal practice to unbolt the slave cylinder from the transmission rather than disconnecting the hose - to save having to bleed the brakes after power pack replacement. This means that the hose is not inspected as part of TN54E level 4



Modified hose with 45° angle at one end, 4CR2A 4720-99-725-9545

repair - **Unit inspectors are responsible for ensuring that the hose is serviceable.**

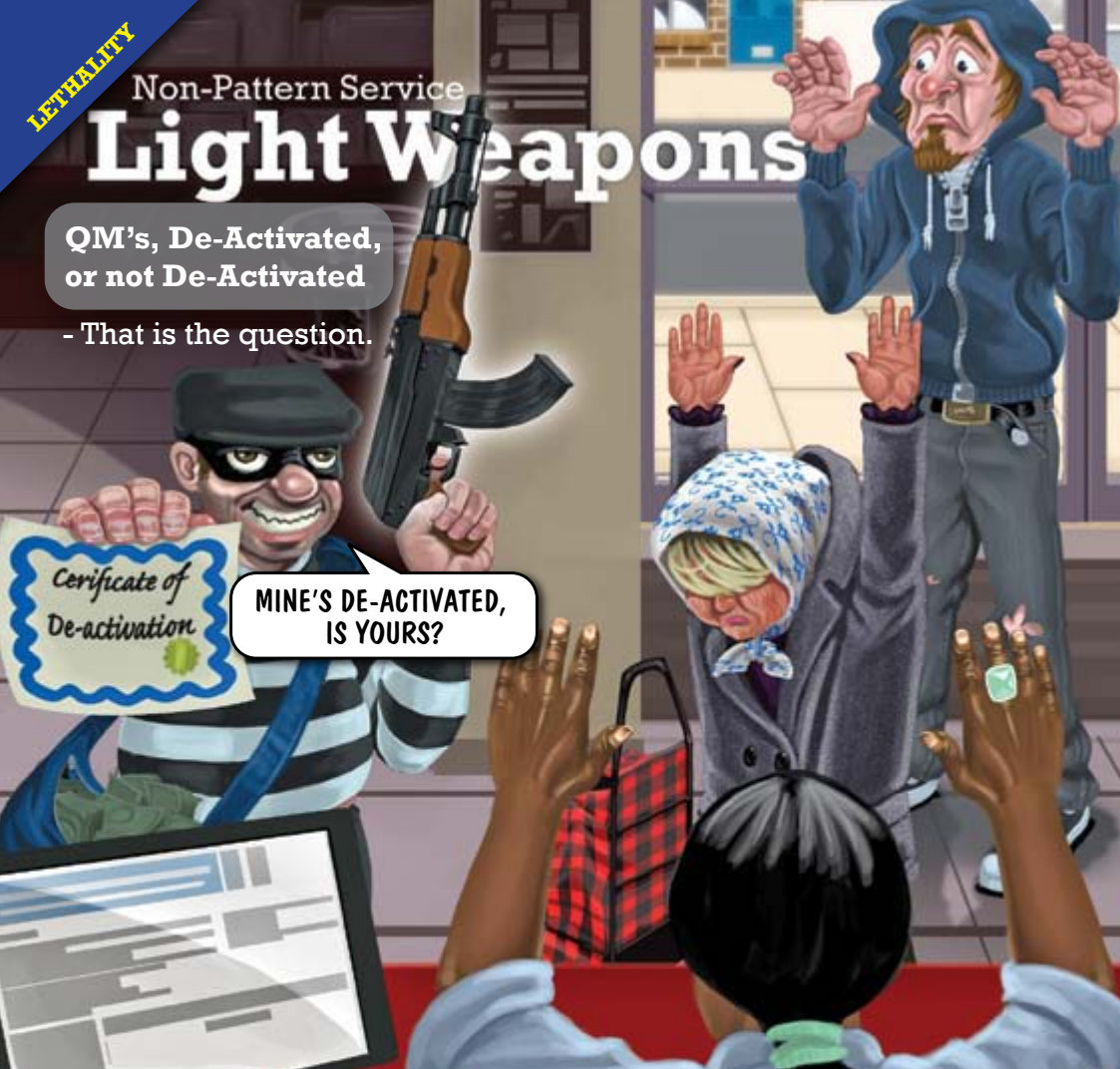
Units are advised that the hose should be inspected as part of the MEI and should conform to the latest pattern; this latest hose has a 45° bend at one end to allow the hose to be routed away from the EFCB.



Non-Pattern Service Light Weapons

QM's, De-Activated,
or not De-Activated

- That is the question.



MINE'S DE-ACTIVATED,
IS YOURS?

Certificate of
De-activation

It is a Legal Requirement that the MOD maintains a Central Register of NPSLW & MO and ensures that all De-Activations are carried out to present Home Office Guidelines.

QMS and Service Arms Equivalents as holders of Unit Registers you play crucial role in ensuring that records are complete and up to date.

- Are yours DE-ACTIVATED CORRECTLY
- Do they have PROOF MARKS
- Have they been issued with a PROOF HOUSE CERTIFICATE

As well as it being a legal requirement, the application of the correct engineering standard prevents potentially dangerous situations from arising.

Do you know where they are? De-ac's are accountable items for very good reason.

AESP 1000-A-003-013 Ch 7 & 8 on the management of NSW's refers to AGAls VOL 4 Ch 132 of note is 132.039 and states that "Copies of Unit Registers are to be forwarded to ES42c on a yearly basis".

This system needs to be reinvigorated so let us do it together or "suffer the slings and arrows of a security inspection". The registers now need to be forwarded to [redacted]

As I hold, the Master Lists of OM and NPSLW's the Unit Registers will allow me to update the Master Register. Before these weapons are, Asset managed on JAMES.

Joint Asset Management and Engineering Solutions

JAMES

The JAMES Safety Case has evolved with the project and aims to set out the "terms and conditions" for the safe use of the JAMES system. It is often said that software can't be responsible for the death or harm to its users, but there is a remote possibility that errors within the system could play its part in a potential accident.

The Project Safety Panel has conducted analysis and a user specific extract of actual Hazards has been produced. All users of the JAMES system are being asked to review the safety brochure, which will be distributed shortly within their specific User Groups.



JAMES Safety
Case Brochure

Coming To A User
Group Near You!

The JAMES project has a responsibility to ensure that the Safety Case remains valid throughout all phases of the project. The User's responsibility is to operate JAMES within its safety boundaries or to highlight issues to the Business Resolver Group when it is not.

If, as a user, you are using JAMES in a way, which has not been considered by the Project (and therefore not covered by the Safety Case) then you should bring the details to the attention of the JAMES Project Team, via the Business Resolver Group, for further consideration by the JAMES Safety Panel.

JAMES
Business Resolver Group (BRG)

Email: [redacted]





Alignment of Recuperator and Buffer Assemblies After Replacement

To enable the correct functioning of the Recuperator and Buffer assemblies while also maintaining the serviceability of spares it is important that the correct alignment procedures are carried out after the replacement or repair of the two recoiling assemblies.

Units are reminded that there are laid down testing and adjustments procedures that should be carried out as a matter of course during these procedures.

AESP References;

- 1015-K-100-522 Repair Instructions
- 1015-K-100-523 Repair Instructions

Illegal Modifications

Users are reminded that all modifications can be located in section 811 of the relevant equipment AESP.

Under no circumstances are units to illegally modify equipment in their charge without obtaining the proper authorisation from the Light Gun Project Team.

A submitted GEMS application is not authorisation until accepted by the Project Team.

GEMS Email Address;

Lever Breech Mechanism (LBM) Swap Over

Users are reminded that the LBM is an integral and specially fitted part of the 105 mm Light Gun breech mechanism.

Swapping of the LBM between Guns is not permitted in any circumstances.

Failure to comply with this direction could lead to misfires, breeches opening during recoil or the early condemnation of the breech blocks.

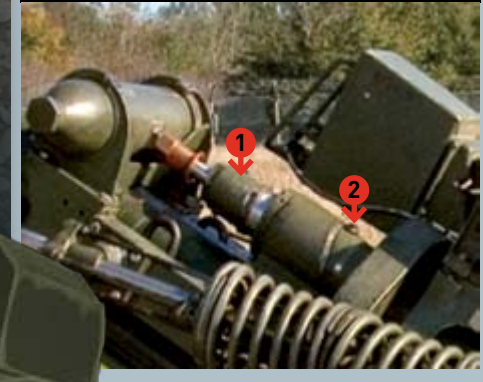


Recuperator Dowty Washer Issues

The following Recuperator Dowty washer NSNs have been superseded:

- (1) 5330-99-942-8452 (Stuffing Box)
Changed to: 5330-99-789-6756
- (2) 5330-99-942-8453 (Recuperator filling Plug)
Changed to: 5330-99-753-0393

AESP References;
1015-K-100-711
(Chap 2-1-4, Pages 6/7, Items 18/20)



CONTRIBUTED BY:

Arty Sys Team, DE&S Abbey Wood

T2 TORQUE

Trojan Brake Bleeding

There have been two reported incidents of a loss of braking performance on Trojan. The first incident, SEFIT report stated that: ...the main brake hydrostatic line was bled. Bubbles in the hydraulic oil indicated that there was air in the system. The vehicle was then subjected to further functional testing as per the 512.

At higher speeds the vehicle brakes operated as designed however at lower speeds and when stationary the brakes failed to hold the vehicle.

The poor low speed braking performance was also identified and investigated at RETDU.

It revealed:

- There was air trapped in the supply line to the brake master cylinder from the brake fluid reservoir
- There was degradation of the hose connecting the reservoir to the master cylinder.



Fig 1 - Brake pedal assembly and brake fluid reservoir

The design authority issued MAPM 141; this instruction detailed an additional procedure to bleed the supply line to the brake master cylinder - The relative positions of the fluid reservoir and master cylinder and the attitude of the master cylinder make it difficult for trapped air to rise into the reservoir.

MAPM 141 has been incorporated into AESP 2350-F-101-522 Chapter 9-3 dated April 2010.

Units are advised that the supply line should be bled if poor low speed braking performance is experienced.



Trojan Top Roller Failure

The double top rollers fitted to CR2 and T2 are prone to failure - **Current usage is 88 per year.**

There have been 4 main failure modes reported:

- The bolts securing the mounting bracket to the hull work loose
- The bolts securing the mounting bracket to the hull shear
- The top roller axle shears - Fig 1
- The top roller axle weld fails - Fig 2



Fig 1 - Sheared shaft



Fig 2 - Weld failure

It is likely that the high failure rate is due to the track tension that can be achieved on CR2 and T2, the HTT rams operating at a pressure of 80 bar - generates a force of 14.4 tonnes acting on the idler wheel. The sheared and loose bolts can be identified by visual inspection, the failures of the shaft and welds are apparent only if the top roller is disassembled and crack detection techniques used.

It is essential that:

The track tension is maintained in accordance with the operating information (Cat 201) so that the track is maintained at the correct tension as the suspension units warm up.

The running gear is maintained in accordance with the platform 601 - it is vital that sheared/loose top roller bracket mounting bolts are identified as soon as possible to prevent excessive loading on the remaining bolts and shock loadings to the assembly

Trojan and Titan Tow Ropes

The current tow rope stowage position - Fig 1, attached to the rear louvers, causes damage to the tow ropes due to the tight radius that the tow rope has to be bent round to clip it into the brackets. Fig 2 shows the effect of this bending stress, the core of the rope is clearly visible.

This rope should not be used as it has been placed under a strain outside of the design parameters and may fail catastrophically. The opening up of the strands also allows dirt to penetrate into the rope, which will cause abrasive wear.



Fig 1



Fig 2

An alternative stowage position, along the side of the vehicle - similar to CR2 - is being assessed at Bovington by the Babcock Defence and Security T2 team and will be adopted if no issues are identified.

CONTRIBUTED BY:

SEFIT 13-0004

CTG, Systems Team, DE&S Abbey Wood.

WARRIOR ! WARNINGS

SUSPENSION LOCKOUTS

The Warrior suspension lockouts are designed to provide a stable platform whilst using the crane to remove and replace assemblies.

The lockouts are extended before using the crane and then retracted after the crane has been stowed and before the vehicle is moved.



Failure to retract the lockouts before moving off causes catastrophic damage to the ram, which cannot be repaired.

Drivers and operators are reminded that the lockouts must be disengaged once the crane has been stowed and before moving the vehicle.

AESP 2350-T-204-201 Chapter 3-9 contains the following warning:

SAFETY HAZARD. The crane must not be operated until the Stabilizer is lowered into position and the suspension lock-outs Engaged.

When the vehicle is required to manoeuvre around a casualty with a load attached to the crane, ensure the stabilizer leg is fully retracted and the lock-out left engaged.

The vehicle speed must not exceed 3k/h (1.8 m/h) over a maximum distance of 25m (82 ft).

Once manoeuvring is complete redeploy the stabilizer leg.

CATASTROPHIC BRAKE FAILURE

The connection between the hull mounted brake linkage, operated by the brake pedal and the pack mounted brake components is a Quick Release Coupling (QRC) - Fig 1. A spring loaded locking sleeve prevents the QRC from disconnecting whilst in use (Fig 2). The locking sleeve should slide easily over the QRC and must be replaced if the spring is weak or it is difficult to move.

Both halves of the QRC should be replaced if they do not fit together correctly.

A recent catastrophic brake failure may have been caused by a seized QRC. It is possible that the central pivot pin in Fig 1 was removed to allow the pack to be lifted. The pivot pin is retained by a split pin, which may not have been replaced allowing the pivot pin to disengage during use.

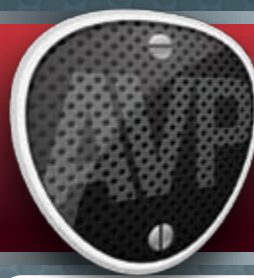
Units are reminded that correct repair techniques IAW the AESPs should always be followed whenever possible.



Fig1



Fig2



ARMOURED
VEHICLES
PROGRAMMES

CHAIN GUN L94A1

The ownership of Chain Gun (CG) has been transferred to:

Armoured Vehicles Programmes, Turret Systems (AVP TS) with effect from April 2013.



As well as the day-to-day support of the CG the AVP TS will also be responsible for a "Get well package" with the Design Authority, the ultimate aim of this package will be to improve the build standard of the equipment.

AVP encourages a 100% Equipment Failure Reporting (EFR) on the CG to allow the team to build a picture of common failures in the system and identify trends, this information will then form a good basis for the start of the "Get well package". EFRs should be raised on any issue that affects the serviceability and safety of the weapon system.

Included on the reports should be as much information as possible regarding a failure and how the diagnosis was reached, even for a basic failure please take the time to submit an EFR (See EFR section).

A revised AESP 1005-N-500 for the CG from H&K is going through its final review. AVP-ISP hope to have the new publication available in the next six months. As soon as this AESP becomes available AVP encourages users to review and if necessary complete a Form 10 if any information is incorrect.

FORM 10

Email to: [Redacted]

EFR

The quality of EFR submissions has become poor; most EFRs do not include the required details that allow the team to act on the failures. EFR reporting is an important process within the through life management of the equipment and no improvements can be made to the equipments without evidence to justify the work to be undertaken.

The following points are common areas of concern when EFRs are raised:

- 1. Lack of serial numbers to end items.** If the item is a repairable, we cannot track the item through the repair process and ascertain the root cause of a failure.
- 2. Lack of details regarding the failure.** Just stating that an item is broken does not supply evidence of a failure. More detail of the diagnosis is required stating the AESP has been followed. If the item is made up of various components, stating that the top-level item was replaced does not isolate the end item that has failed.

JSP 886 Volume 5 Part 2 - Land Equipment Support, Chapter 3 Version 1.8 dated 23 Oct 12 details the process for Equipment Failure Reporting and should be read before submitting EFRs.

JAMES component reports should contain all the details of the EFR and this is also explained within the same chapter of JSP 886.

New Contact Details

With the recent merger of Systems Team and Platforms Team, CTG, Turret and Weapons is now: Armoured Vehicles Programmes, Turret Systems.

This has resulted in the following changes of contact details:

TS SME/Chain Gun ESM



TS Repair/Supply

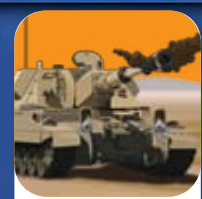


Chain Gun Get well package



Land Equipment Programmes

New and Noteworthy Top Five >



AVP



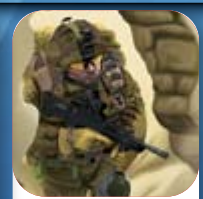
CMP



OSP



TSSP



SSP

★★★★☆

New	Previous
 In-Service Platform Programme (ISP) [Redacted] Artillery Systems (AS) [Redacted] Scout SV (SSV) [Redacted]	Platform & Systems Team (P&ST) Arty Sys (AS) SV

AVP
(Previously CTG)

Armoured Vehicles Programme

★★★★☆

New	Previous
 Protected Mobility Programme (PMT) [Redacted] Manoeuvre Support Programme (MST) [Redacted] C-IED Programme (CIED) [Redacted]	Protected Mobility (PM) Manoeuvre Support (MS) ISTAR

CMP
(Previously CWG)


Combat Mobility Programmes

★★★★☆

New	Previous
 OSP (Previously GSG)	Operational Support Vehicle Programme (OSVP) [Redacted] Operational Infrastructure Programme (OIP) [Redacted]


Operational Support Programmes

★★★★☆

New	Previous
 TSSP (Previously JBTSE)	Training & Simulation Systems Programme (TSSP) [Redacted]

Training and Simulation Systems Programmes

★★★★☆

New	Previous
 SSP (Previously ICG)	Dismounted Close Combat Programme (DCC) [Redacted] Special Projects, Search and Counter Measures Programme (SPSCM) [Redacted] SF Programme (SF) [Redacted]

Soldier System Programmes



ENGINEER'S CORNER THE PRINCIPAL ENGINEER FOR LAND EQUIPMENT

HOME **UPDATES** OTHER QUERIES HELP CONTACT

THE PRINCIPAL ENGINEER FOR LAND EQUIPMENT'S REGULAR UPDATE ON VARIOUS ITEMS OF INTEREST RELATING TO EQUIPMENT, SUPPORT, SAFETY AND ENGINEERING.

CE MARKING OF LIFTING & RECOVERY EQUIPMENT

CE stands for 'Conformité Européene' which translates as 'European Conformity'. The CE mark is required for all new products, which are subject to one or more of the European product safety Directives. It is a visible sign that the manufacturer of the product is declaring conformity with all of the Directives relating to that product. A number of recent Equipment Care Inspections have highlighted that some of our lifting and recovery equipment does not have CE markings in apparent contravention of:



AESP 2590-E-100-013; 'The Management of Lifting and Recovery Equipment' and AESP 0200-A-090-013 'Land Equipment Engineering Standards'.

Given that a fair bit of our kit is purchased from outside of the EU, we have done some digging to clarify the CE marking policy on chains, ropes and webbing used for lifting and recovery.

FOR RECOVERY EQUIPMENT

There is no specific requirement for chains, ropes and webbing used for recovery to carry a CE mark.



FOR LIFTING EQUIPMENT

- If an item was made before 1995 then the requirement for CE marking **does not** retrospectively apply and the item can continue to be used, as long as it is in satisfactory condition and in date with regards to inspection and other safety controls.
- If a bulk reel was made, cut into lengths and/or made up into a sling outside of the EU, then sold to MOD, this **would** require a CE mark.
- If a bulk reel was made inside the EU, but not placed on the market and the manufacturer of the reel then cut this into lengths/slings for sale to MOD, this **would also** require a CE mark.
- If a bulk reel was manufactured outside the EU and then imported in bulk, this would have had a CE marking applied at that stage. The individual lengths cut from the reel **would not** require a CE mark as the item was made from a source already marked within the EU.

CONFUSED? The bottom line is that a CE mark is not always required. The absence of a CE marking is not in itself a sufficient reason to fail a piece of equipment during its thorough examination.

Our Programme teams are investigating whether we need to retrospectively CE mark some of our lifting equipment. Action is also in hand to update our Lifting Equipment AESPs to ensure that ECIs are conducted appropriately in the future. In the meantime an interim policy that reflects this guidance has been distributed through the chain of command.

SEAT BELTS

I hope that there is no longer anyone in the Military who still believes the myth that someone occupying a vehicle seat can be 'thrown clear' from a road traffic accident or an IED/mine strike if they are not wearing their seat belt.

Your seat belt will help keep you alive - FACT. Page 21 in this issue you will see some good advice from the Protected Mobility Programme on the critical importance of good husbandry of seat belt harnesses.

HARD AND SOFT COPIES OF ARMY EQUIPMENT SUPPORT PUBLICATIONS

A Staff Sergeant from a REME Light Aid Detachment contacted us to ask about the use and distribution of hard copy versus electronic copy AESPs and their amendments.

Tech Docs On-Line (TDOL) on Dii is the main source for the most up to date versions of all AESPs. The only exception is for the small number of projects that use Interactive Electronic Technical Publications (e.g. Terrier).



However, there is an ongoing requirement for hard copy AESPs, for example when a unit deploys on Mission Specific Training in preparation for Ops and has no access to DII.

Hard copy AESPs can be obtained from DE&S Logistic Services Forms & Publications at Bicester by using the MILLIE Online Portal.



VEHICLE SAFETY - ALWAYS GUARD AGAINST COMPLACENCY

There has been a worrying and continuing series of incidents in which Users have caused uncontrolled movement of a vehicle by reaching in through the door to switch on or operate the vehicle controls. There have also been a number of recent incidents caused by careless or untrained drivers.

Over recent years we have seen fatal incidents, serious injuries, equipment damage and a number of near misses.

- Vehicles must only be operated by Trained Drivers or Commanders.
- Users must always be in the driving seat and in full control of the vehicle before attempting to switch on or start the engine.
- Always be alert and cautious when operating vehicles in close proximity to people, other vehicles or obstacles.

All Publication Sponsors are required to inform Bicester of all updates, amendments and new releases for any publication ordered via the MILLIE Portal or distributed via the central print process. Unfortunately the human element in this process means that Bicester are not always informed of updates in a timely fashion and printing and distribution of updated hard copies can lag behind the electronic version.

We are taking steps to sharpen up our internal processes, but in the meantime:

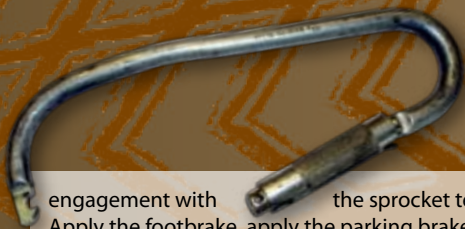
Users are advised to regularly check their hard copy AESPs and ensure they match the versions held in TDOL.

Best practice is to:

- Mark all hard copy AESPs with their date of production.
- Check hard copies for validity against TDOL within 28 days of their production.
- Valid hard copies may be used for a further 28 days before being checked again.
- AESPs which are no longer valid, must be destroyed.



Combat Track Group



Track Rope Karabiner Failure

Further investigations into track rope karabiner failure, (highlighted in KIT 79), have identified that the most likely failure mode occurs if the karabiner is not disconnected from the track once the leading links have engaged with the sprocket teeth. The karabiner is then pulled into contact with the sprocket carrier where it will twist so that lies flat against the surface of the carrier.

This twisting moment will snap, distort or weaken the gate hinge pin.

AESP 2350-P-102-201 Chapter 1-9-3 states:

Apply the steering lever on the side of the vehicle on which the track is being refitted, maintain the pull on the track rope and draw the track onto the sprocket until two or three links are in

engagement with the sprocket teeth. Apply the footbrake, apply the parking brake, release the footbrake, select neutral and switch off the ME.

Remove the track rope from the track and sprocket ring carrier, restart the ME and select emergency reverse gear.

Apply the steering lever on the side of the vehicle on which the track is being refitted. Release the brakes. Gather all the slack in the track behind the sprocket until the top run of the track is taut and there are two links remaining on the ground behind the rear road wheel.

Any karabiners that have been distorted through contact with the sprocket carrier should be destroyed to prevent them being re-used.

The Armour Centre AFV D & M School have identified an alternative method of removing and replacing the track which will be communicated to all units once the procedure has been sanctioned by the design authority.

Hydrogas Residual Pressure

The suspension units used on CR2, CRARRV and T2 contain nitrogen under high pressure (140 -160 bar) when fitted to the vehicles.

Failed suspension units are returned through the normal stores system in Level J packaging to JSSC Donnington prior to repair.

The high gas pressure constitutes a potential transport and storage hazard and all nitrogen must be removed from the bottle ends and sumps before the failed units are packed.

The AESPs for the above vehicles (522 Chapter 8-1) contain instructions to discharge the nitrogen pressure from failed suspension units.

It is now necessary to provide certification with each suspension unit, which states that all pressure has been discharged from the bottle end and sump.

The Special Packaging Instructions (SPIs) are being amended to include the following notes:

An A4 size certificate to be attached securely to the outside of the packaging in a waterproof sleeve, adjacent to the identity plate - the certificate to state:

THE SUSPENSION UNIT CONTAINED IN THIS PACKAGING IS FREE FROM GAS (ALL NITROGEN HAS BEEN RELEASED FROM THE BOTTLE END AND SUMP)

Signed

Name:

Rank:

Unit:

Serial No. of assy:

Date:

A formal instruction will be issued from HQ Army directing units to comply with the amended SPIs



Protected Mobility Team

Take care of your Seat Belts!

They could Save Your Life

Loose and Missing Buckle Levers

From September 2011 SECURON identified with PMT the **buckle lever retaining screw was loosening** due to knocks and vibration. SECURON modified new buckles to facilitate the introduction of Loctite to the locating screw threads.

Regular inspection of the harness should check to see if the lever locating screw is loose, indicated by it protruding through the decal, or by checking for tightness should the decal be missing.



On such occasions the screw should be removed, cleaned and Loctite 243 or TL70 applied and the screw refitted and tightened tighten to 0.6Nm.

5th hole - Crutch Strap Connection



SECURON have now introduced a blanking plug, permanently fitted with the 'dropped' pin to eliminate this risk.

3 versions of buckle now exist which the User needs to be aware of.

All are still serviceable unless a fault is found which renders them U/S.

Users are to continue using existing stock, which will be systematically replaced with the fully revised buckle when stocks are replenished.

On very early buckles it is possible to input any strap tongue into the 5th hole. (Crutch Strap aperture).

To prevent incorrect harness fitment and repeated inadvertent misalignment of harness straps, SECURON 'dropped' the locating pin on this particular connection to prevent engagement by any tongue, thus eliminating the risk of incorrect harness fitment.

Following this change a number of unserviceable harnesses were found where a tongue was **forced** into this aperture, resulting in the harness and buckle being jammed and needing replacement.

GOOD PRACTICE

- Seat belt harnesses are to be worn at all times
- When not in use, all straps should be connected to the buckle to prevent damage through impact during travel
- All elements of the harness should be regularly cleaned and checked for security

Remember

Harnesses are safety items and like tyres they are subject to everyday wear & tear and abuse. They need to be checked regularly and those 'not in good condition' must be replaced.

CTG, Systems Team, DE&S Abbey Wood.

CONTRIBUTED BY:

CONTRIBUTED BY:

CMG, PMT, DE&S Abbey Wood.



Bowman

Incident Reporting (IRs) MOD Form 683

When backloading unserviceable BCIP items, all users and maintainers must ensure that items which are on the 100% IR reporting list must be returned accompanied by a detailed Incident Report (MOD Form 683).

Neither EFRs or JAMES CRs are to be used when backloading BCIP items or to report item or software faults, an IR (MOD Form 683) is to be used. BATCIS are aware of a unit which raised 100 plus non-required IRs - Reading the IR Policy document prior to raising an IR could save you a lot of wasted time and effort.

Bowman Demand Enquiries

All Bowman demand queries are to be addressed to the BATCIS Designated Officer at the following email address [redacted] or on extension [redacted].

Level 3 Maintainer Bowman Repair CES

Attention all Level 3 maintainers, the Level 3 Repair tools CES has been updated. BRD 2013.029 can be found on the **BUCK under the Support Tab**.

BATCIS Product Catalogue

The BATCIS Delivery Team Illustrated Product Catalogue for both Core and UOR equipment has now been published onto the **BUCK under the Publications Tab**.

This catalogue has been developed for the benefit of DE&S personnel, the TacCIS user community and supply chain/unit staffs to facilitate an understanding of the equipment (what it looks like), assist with basic accounting/supply information and above all the ability to clearly identify each asset.

The catalogue does not yet cover the full range of TacCIS equipment, although this is a future aspiration.

YEH THAT'S THE ONE!

BUDT CD ROM

There are still instances where BUDTs have been returned for repair with the CD/DVD-ROM drive missing. All units are reminded that the CD/DVD-ROM drive is to be left in a BUDT when returning the BUDT for repair.

BCIP 5.5 is Coming Your Way!

BCIP 5.5 contains software updates (UDTs, LDTs, TNG and ECW) and fielding commenced in April 2013. Radios are not affected by this update.

BRD 2013.008 contains an overview of the release and affected items. The BCIP 5.5 Fielding plan can be found under the Fielding tab of the BUCK.

IETP

The current issue of the IETP is Issue 31 released on 15th April 2013 (See BRD 2013.033). Please ensure your terminals are up to date.



BATCIS Contacts

All Bowman Technical Support queries should be raised with the 15 Sig Regt (IS) helpdesk in the first instance. They can be contacted on [redacted].

If you need to contact BATCIS for any reason, here are the following key contacts for advice:

Role	Email	Tel
ILS, Technical Support 1	[redacted]	[redacted]
ILS, Technical Support 2	[redacted]	[redacted]
ILS, Technical Support 3	[redacted]	[redacted]
ILS, Technical Support 4	[redacted]	[redacted]
ASM	[redacted]	[redacted]
Level 3 Repair Manager	[redacted]	[redacted]
Incident Manager	[redacted]	[redacted]

BACMS

BACMS is now in a drawdown phase and all equipment is to be returned to Bicester Trg Wing immediately.

All units with BACMS terminals are to contact [redacted] or [redacted] to either

- Request instructions on back loading their terminals to Bicester;
- Justify retaining the kit (IETP etc)

Over the coming months all data held on the BUCK relating to BACMS will be gradually withdrawn and deleted. On the front page of the BUCK users can apply for level 2 access and two of the community areas are BACMS HQ User and BACMS Unit User. These are going to be withdrawn but in the meantime users will receive a rejection for these two community areas.

Incident Reporting

Version 8 of the 100% Incident Reportable list is now live and can be found on the **BUCK under the Support Tab**.

Marine Multi Radio Waterproof Rucksack (MMRWC)

This product is for Royal Marine use only and can only be requested through Fleet N6. The point of contact is NAVY IS-LLM COMMS YOS [redacted].



Protected Plant

Modifications

The following modifications / improvements will soon be rolled out for the Protected Plant. Modifications will need to be annotated on JAMES once complete.

434E (P) - Combat Lock Access Plates

Improved combat lock mechanism covers to be fitted. The modified plate can rotate on the mounting hardware rather than having to be completely removed, also the addition of a hex head in the centre of the plate, will assist in rotating the plate if it has adhered to the cab body.



938G (P) - TMI Display Blackout Plate

Blackout cover plates fitted to the TMI Display in the cab. The hinged cover will reduce the glare of the lights and can be closed when operating in blackout mode or when using Night Vision Goggles.



434E (P) & 938G (P) - Door Slings

Slings assemblies are installed to each cab door, so that if equipment has rolled over, mechanical assistance (i.e. crane, winch or vehicle) can assist with opening the heavy armoured door.



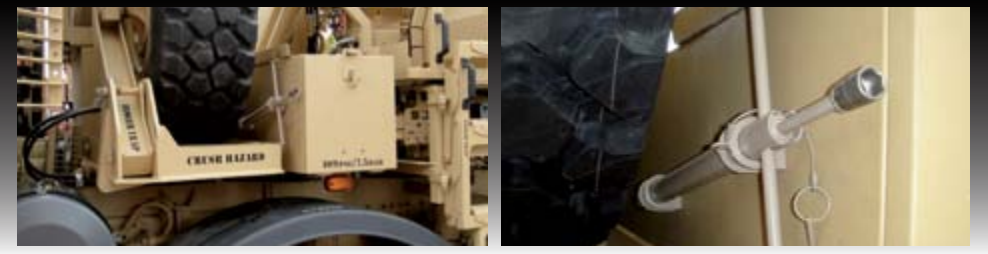
Iveco SLDT (P) - Inclinator

The installation of an Inclinator in the Drivers Station, to provide feedback on the vehicle position, it includes a decal to inform the operator of the safe working angle limit.



434E (P), 938G (P) & Iveco SLDT (P) - Combat Lock Release Tool

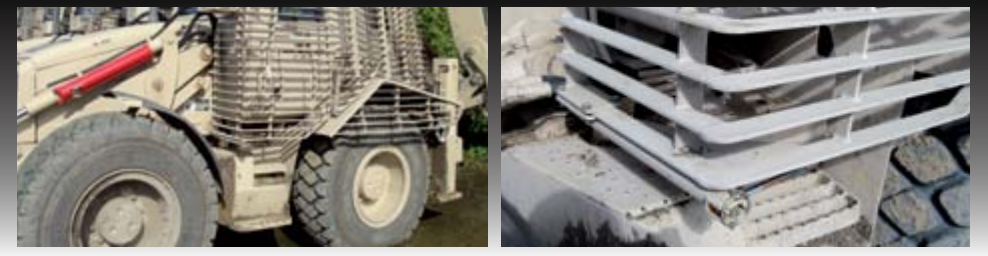
SLDT (P) - The introduction of a combat lock release tool (two per equipment), easily accessible on either side of the vehicle.



938 (P) - The introduction of a second tool and a change in location to improve access.



434E (P) - An improved tool, which will access and operate the combat release lock without engaging on the bar armour. The tools will be mounted in easily accessible locations on either side of the vehicle.



938G (P) - 4 Point Harness

This is to replace the current lap belt on the operator's seat with a 4-point harness. Improving operator safety in the case of an incident.

Publications

UOR Protected Plant users are reminded of the cross-reference (MPNs to NSNs) list contained at the rear of the AESP.

The Finning CLS contract team are working with the Project Team to Review, Update and improve all AESPs. Any support required for Protected Plant, see new contact details.

Email Changes

Project Team Email is: _____

Finning DII/F Email is: _____

Finning Email is: _____

Contact Numbers

Finning 24hr Helpdesk _____

Project Team _____

This Issue's Special Offer

Complete Front Mudguard Assemblies!

Is your gun looking a bit crumpled or generally aged on the front corner area? Smarten it up with a nice set of brand new fenders*.

NSN	Item
2510-99-564-8543	RH Front Fender Assy
2510-99-660-2170	LH Front Fender Assy

NEW sprocket/hub offered in the last issue!

* Sorry, only available in nicely colour coded green, don't request chrome ones, they're no longer available. 22 sets only, when they are gone - they're gone!

Report faults on these bits!

Cat 111 of the AESP is not a regular read for most people, but it does have one table that all AS90 maintainers should be aware of - the critical items EFR list.

AS90 is on reduced reporting of failures, but there are some items for which we really need EFRs and/or Component Reports (via JAMES), so that we can trend the failures and hopefully, make cost effective improvements.

The following shows which items are on the list - so don't waste time reporting on items not on the list but please make sure that you are reporting on the items which are on it!

Here are the things you should be reporting on for AS90 - have a read through, some of them might surprise you!

It's at Chapter 1 Annex A. Here's a sneak preview but don't forget to look at the real thing soon as we update it regularly.

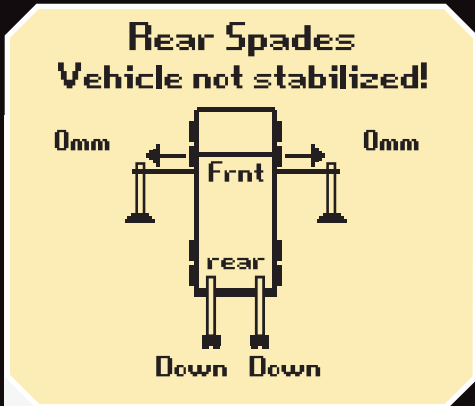
If the item has a serial number it is vitally important that you include it in your report, so that we can match the symptoms you have described to the repair agent's report of what he finds when he eventually takes it to bits back at the factory!

Ser	Description	NSN
1	Transmission Gearbox ZF LSG 2000	2520-01-343-4587
2	Transmission Gearbox ZF LSG 2000 EEP	2520-99-573-1716
3	Engine Assembly VTA-903T-660	2815-01-345-8287
4	Starter Main Engine	2920-01-338-4815
5	Engine Lube Oil Cooler	2930-01-343-4872
6	Radiator	4520-01-342-6967
7	Radiator Fan Motor	2930-99-422-7903
8	Air Filter Pre-Cleaning	2940-01-338-4872
9	Regulator, Temp/Pressure	4820-01-343-4659
10	Generator Main Engine	6115-01-338-4793
11	APU Assembly	6115-99-588-0025
12	APU Engine	2815-99-983-0332
13	APU Generator	6115-99-660-4201
14	Starter APU	2920-99-269-1126
15	APU Control Unit	2990-99-562-2817
16	APU Heater	2540-99-004-0702
17	APU Assembly EEP	2815-99-898-0485
18	Final Drive Gearbox (LH)	2520-99-445-4114
19	Final Drive Gearbox (RH)	2520-99-917-0866
20	Traverse Gearbox	1025-99-839-9801
21	Elevation Gearbox	1025-99-839-9802
22	Direct Fire Sight	1240-99-477-4166
23	Turret Gearbox Assy	2520-99-560-4088
24	Barrel Clamp	2590-99-973-5817
25	Barrel Clamp Motor	6105-01-423-4212
26	Commanders Wiper Motor / Gearbox	2540-99-564-2515
27	Barrel Bellows	5340-99-126-2326
28	Commanders Day Sight periscope	6650-99-075-4050
29	Bolt Vent Axial	1025-99-419-9334
30	Turret Control Computer (TCC)	1220-99-170-5395
31	Turret Control Unit (Bowman)	1220-99-785-5489
32	Clamp Actuator Assembly	2530-99-730-2340
33	Dynamic Reference Unit (DRU)	2350-99-902-3287
34	Drivers Console	2510-99-720-6384
35	Chassis Isolator Unit	2510-99-753-9572
36	Turret Data Coupler (TDC)	2590-99-338-8230
37	Balance Cylinder Assembly	3040-99-306-2558
38	Amplifier Power Supply	5895-99-227-2808
39	Chassis Data Coupler (CDC)	5975-99-133-8740
40	Chassis Distribution Unit (CDU)	6110-99-401-1062
41	Drivers Day Sight	6650-99-803-1122
42	Layer's Display unit (LDU)	7025-99-133-9076
43	New Side Door Torsion Bar	3040-99-226-0815
44	Obturator Deleted at next amendment	1320-99-145-6507
45	Brake Pump Motor, 24v, 14 winding	6105-99-813-1795
46	Assembly, Obturator, (Asbestos Free)	1320-99-488-8427
47	Brake Pump Motor, 24v, 12 Winding	6105-99-462-6472
48	Buffer, Recoil System	1025-99-392-8964
49	Assembly, Recouperator	1025-99-902-0170
50	Assembly, Cylinder, (Balance System)	3040-99-306-2558

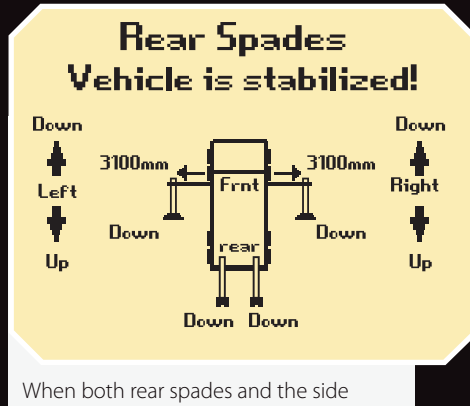


SUPPORT VEHICLE TOP HAMPER SOFTWARE UPGRADE

An upgrade to the SV(R) software is being deployed that will provide additional information on the MFC when the user is stabilizing the platform for crane operation.



Until the vehicle is fully stable the user will see the following message 'Vehicle not stabilized'.

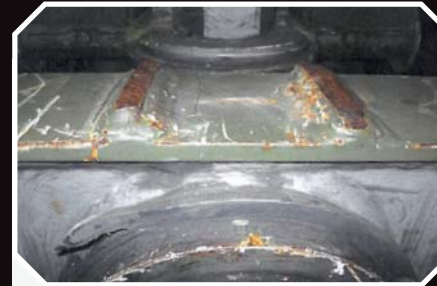


When both rear spades and the side stabilizer legs are deployed and pressurised the user will see the following screen to confirm that the expected crane capability is available.



UNAUTHORISED MAIN WINCH STOWAGE MOD

Vehicles have been presented for repair with the stowage bracket for the Main Winch Rope removed.



This is an unauthorised Modification and should not be carried out without formal approval.

CAM NET STOWAGE BIN

Users are reminded that the stowage bin behind the cab is for the camnet and should not be used for transporting heaving objects such as anchor pins.

EPLS (UOR) TOP HAMPER WARRANTY

It has been brought to OSVP attention that the User community are unaware of the warranty constraints across all variants of MAN SV EPLS platforms.

OSVP would like to direct the user community to check:

AESP 2320-W-100-601 Page 3 Para 14.6.2, 14.6.2.1 and 14.6.2.2

Before any warranty claims are submitted to confirm the DIS of the equipment on JAMES.

CONTACT EMAILS FOR SUPPORT VEHICLES HAVE CHANGED

For all technical assistance and enquiries regarding MAN Support Vehicles, please use the updated contact details below;

Support Vehicles (Cargo, UST)



Support Vehicle (Recovery)



SV EPLS



KIT! BITZ

PLANT equipment

Safety Case 721 / CXT /MWT

There has been an incident where a Case 721 CXT MWT has caught fire and completely burnt out.

ALC / MOD are required to complete the safety check as per the SAFETY INSPECTION BULLETIN.

Plant Equipment that Requires Inspection

39KM04, 39KM07, 39KM08, UF78AA, UG34AA.



For further information, Contact: [Redacted]

SEFIT



Serious Equipment Failure Investigation Team

Contact Details:

SEFIT (UK)
Abbey Wood Mil: [Redacted]

Duty Investigator: [Redacted]
Group Email: [Redacted]

SEFIT (Germany)
Bielefeld [Redacted]

Duty Investigator: [Redacted]
Group Email: [Redacted]



Misuse of Handheld BCF Fire Extinguishers

NSN 4210-99-881-4724

Under the Montreal Protocol, there is a requirement to phase out the existing single-strike green BCF extinguishers (NSN 4210-99-881-4724), which contain Halon, to a more environmentally acceptable option.

Until the replacement is in place, Units must ensure that current stocks are preserved as they are quickly running out, threatening capability of the fleet.

Units are reminded Failure to comply with the correct procedure is directly in breach of the Environmental Protection Act.

These extinguishers, must only be discharged in the event of an actual fire...

If an extinguisher is misused or discharged accidentally, a Damage Report must be completed.

These extinguishers will now be subject to tightening supply controls, and Units must ensure these guidelines are followed with immediate effect.



Introduction of New Fire Suppression Newsletter

FireSnow

News of the latest regulations surrounding the use of gases in Fire Extinguishers on Tank platforms and further afield, as well as any advances in Fire Fighting technologies can be found in the new Quarterly Bite-size newsletter **FireSnow**.

Covering subjects from the Montreal Protocol to affects of suppressants on Humans, **FireSnow** will be created by Armoured Vehicles Programmes for the benefit of the wider Defence community.

Currently available from the FDSS Gatekeeper, [Redacted]

Soon to be accessible on the Intranet.



FORM 10 - from YOU by email

FORM 10 CONTACTS
Email: [Redacted]
Mil: [Redacted]
Post: [Redacted]

Well done - keep them coming



ARMED FORCES DAY
SHOW YOUR SUPPORT



Saturday 29 JUNE 2013

armedforcesday.org.uk



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