# TECHNICAL INSTRUCTIONS FOR STORAGE OF EQUIPMENT UNDER CONTROLLED HUMIDITY ENVIRONMENTS

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**CONTROLLED HUMIDITY ENVIRONMENT (CHE)**

Chapter

## PREFACE

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### INTRODUCTION

1 Any comments by service users on this publication must be forwarded through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it must be photocopied and used for forwarding comments on this AESP, if unable to send electronically.

2 AESPs are issued under UK MOD authority and where AESPs specify action is to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Instructions and Notices (DINs), Standard Operating Procedures (SOPs) or by local regulations. When any such instruction, Order or Regulation contradicts any portion of this publication it is to be taken as the overriding authority.

### RELATED AND ASSOCIATED PUBLICATIONS

#### Related publications

4 There are not related publications for this publication.

#### Associated publications

5 This publication is sanctioned as up-to-date by the publications authority, any doubt of the associated publications validity must in the first instance be directed to the Equipment specific sponsor and a Form 10 raised.

6

| Reference | Title |
|---|---|
| JSP 375 | Management of Health and Safety. |
| JSP 800 | Defence Movements and Transportation Regulations. |
| JSP 886 | Defence Logistics Support Chain Manual. |
| AESPs | Equipment specific. |
| 2350-P-102-601 | Tank, Combat, 120-mm Gun, Challenger 2. |
| JDP 4.00 | Logistics, Chapter 5: Generating Logistic Force Elements. |

## DEFINITIONS AND ABBREVIATIONS

### Definitions

7 For the purpose of interpretation and clarity, the following definitions are applicable to this publication only:

| Term | Definition |
|---|---|
| The Authority | Army Eqpt-Ops-FM-SO1. |
| Appropriate | As stated in equipment-specific AESP. |
| Caution | Precautionary statement alerting of a potential hazard to equipment. |
| Warning | A statement telling of or an indication of impending danger to personnel. |
| Losing unit staff | Unit/Formation/Divisional staff that have offered equipment for CHE storage. |
| Storage facility staff | Repair agency staff responsible for the receipt, storage and reactivation of equipment into/out of CHE storage. |
| Gaining unit staff | Unit/Formation/Divisional staff that will take ownership, upon reactivation, of equipment in CHE storage. |
| Controlled Humidity Environment (CHE) | Where the air within a given environment has had its moisture content reduced by dehumidification, to a predetermined level. This moisture content is referred to as the Relative Humidity (RH) and is given as a percentage. |
| Active fleet | Equipments that are regularly used and/or retained in unit lines. |
| Stored fleet | Equipments that are held in CHE storage. |
| Open CHE storage | Dehumidified fresh air is delivered directly to the internal compartments within equipment, regardless of the environmental status outside. When equipment is stored in this environment, only the areas where the dehumidified air is delivered to will benefit. Exposed areas of the equipment will therefore be subject to the normal levels of moisture induced corrosion. The dehumidified air will eventually be lost into the external atmosphere. This system is also referred to as a 'Total Loss' system. Its use will be primarily for those fleets that are active, or where vehicles are retained in unit lines that are not suitable or practical for Closed CHE. |
| Closed CHE storage | Air being dehumidified is recirculated from within a closed environment such as a building, a vacuum-sealed bag, or weather proofed tent. This is ideal for CHE storage. |
| Relative Humidity (RH) | The level of humidity expressed as a percentage (%), relative to the saturation or dew point of a given volume of air at a given temperature. It is a comparison between the amount of moisture in the air and the amount of moisture that the air is able to hold. |

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**Definitions** (continued)

| Term | Definition |
|---|---|
| JAMES equipment states | A reflection of the equipment and all its faults (anything that is reported against an equipment will ultimately be recorded as a fault) therefore any faults listed against an equipment will produce the overall equipment state. The highest level fault setting gives overall state of the equipment. The Joint Asset Management and Engineering Solutions (JAMES) equipment states are as follows: |
| Fully fit | Equipment may or may not have faults recorded against it. This is the lowest fault state. It will be used against a fault that has no impact on the functionality or role capability of the equipment. If only faults of this state are recorded against the equipment, the equipment's overall state will remain fully fit. |
| Limited role | Equipment has faults recorded against it that do have effect on the Role Capability of the equipment (could include when routine maintenance has slipped). |
| Non-task worthy | Equipment cannot be used for a task. There are faults on the equipment that effect the legal requirement, safety requirement or severely affect its operational capability (Includes when servicing and/or maintenance periods are exceeded). |

**Abbreviations**

8 The following abbreviations are applicable in this publication.

| Abbreviation | Definition |
|---|---|
| AESP | Army Equipment Support Publications. |
| BCIP | BOWMAN Combat Infrastructure and Platform. |
| BES | BOWMAN Equipment Schedule. |
| BFCV | Bulk Fuel Carrying Vehicles. |
| BMS | Battery Management System. |
| BUCK | Bowman User Community Knowledge. |
| CCA | Cold Cranking Amps. |
| CES | Complete Equipment Schedule. |
| Chap | Chapter. |
| CHE | Controlled Humidity Environment. |
| DIN | Defence Instruction Notice. |
| DR | Discrepancy Report. |
| ECI | Equipment Care Inspection. |
| EFR | Equipment Failure Report. |
| EMER | Electrical Mechanical Engineering Regulation. |
| HET | Heavy Equipment Transport. |
| JAMES | Joint Asset Management and Engineering Solutions. |
| JCR | JAMES Component Report. |
| JDP | Joint Doctrine Publication. |
| JFF | JAMES Fully Fit. |
| JSP | Joint Service Publication. |

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**Abbreviations (continued)**

| Abbreviation | Definition |
|---|---|
| LATF | Lead Armoured Task Force. |
| LET | Light Equipment Transport. |
| LOLER | Lifting Operations and Lifting Equipment Regulations. |
| LRU | Line Replaceable Unit. |
| LSI | Logistic Support Inspection. |
| LSTI | Logistic Support Technical Inspection. |
| MEI | Mandatory Equipment Inspection. |
| MG | Mounting Group. |
| MIS | Management Information System. |
| MJDI | Management of Joint Deployed Inventory. |
| MoD | Ministry of Defence. |
| MTBF | Mean Time Before Failures. |
| NATO | North Atlantic Treaty Organisation. |
| NFF | No Fault Found. |
| OOPM | Out Of Phase Maintenance. |
| PT | Project Team. |
| REME | Royal Electrical and Mechanical Engineers. |
| RH | Relative Humidity. |
| RLS | Real Life Support. |
| SOP | Standard Operating Procedure. |
| STTE | Special Tools and Test Equipment. |
| SQEP | Suitably Qualified & Experienced Person |
| VIK | Vehicle Installation Kit. |
| VSOF | Vanguard Stored Operational Fleet. |
| WFM | Whole Fleet Management. |

## WARNINGS AND CAUTIONS

9 There are no warnings and cautions within this publication, however if any tasks are to be carried out whilst in the storage facility, then the warnings and cautions to be adhered to will be in accordance with equipment specific AESPs and the storage facility SOPs.

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## CHAPTER 1

## RECEIPT INTO STORAGE

### CONTENTS

Para



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**CONTENTS** (continued)

**POLICY**

1 This document mandates the implementation of the Controlled Humidity Environment (CHE) in the preservation of MoD assets and equipment when requested by the Authority Fleet Manager.

**PURPOSE**

2 The purpose of CHE or dehumidification is to mitigate the effects of the surrounding environment moisture on the material state of equipment when stored or out of use. In principle the Relative Humidity (RH) of the air surrounding equipment is reduced to a controlled level in order to prevent material degradation.

**SUMMARY AND OVERVIEW OF CHE**

3 Although CHE is most commonly used to reduce the incidence of corrosion of metals it is also effective in reducing the degradation of non-metallic material including composites and high-energy materials.

4 CHE is also used to protect electronic systems, especially avionics, which benefit from a highly significant reduction in 'no fault found' incidents and therefore an increase in the Mean Time Between Failures (MTBF). The introduction of CHE can often be justified purely on the basis of the reduction in 'No Fault Found' (NFF) electrical system incidents. The corresponding decrease in materiel degradation related faults of the system such as corrosion is then considered as an additional benefit.

5 It must not be assumed that the lower the RH the better the preservation. Below a humidity threshold no further materiel degradation would otherwise occur and additional reductions in humidity are a wasted resource. In addition very low levels of humidity may adversely affect some components such as engine or gearbox seals, which would very likely dry out. In the case of electrical systems they may become susceptible to a build-up of static electricity. It is therefore necessary to specify a minimum as well as a maximum humidity level. Generally this is between 40% min to 50% max RH. However for aviation equipment, especially avionics, this may be down to a min of 20% RH.

6 Conceptually, once equipment enters CHE the maintenance clock stops. However a management-in-storage regime is required to ensure that equipment remains JAMES Fully Fit (JFF). This management-in-storage regime covers inspections, battery management, lifed item management, modifications, fleet rotation, and any maintenance requirements emerging from this activity.

7 There are two methods of storing equipment in CHE:

7.1 Open Order storage: Equipment is stored in a car park layout, either in a herring bone formation for large equipments or a standard car park layout for small equipments. Due to the additional in-storage management requirements for higher readiness equipment between R3 and R5, these will be stored in open order storage, such that each individual equipment in open order storage can be moved in or out of the shed without disturbing any other equipment.

7.2 Close Order storage: This is the default storage layout for all equipment. Equipment is stored in columns, with 1.07 m gap around each vehicle. This allows access without equipment movement for visual inspections, management of a ground mounted Battery Management System (BMS), simple modifications and minor maintenance. For equipments in close order storage, the design of shed doors in relation to parking layout will allow any equipment to be moved out of a shed without disturbing more than half a column of equipments.

**PROCESS STAGES**

8 Storage of equipment in CHE storage will be in four stages:

| | | |
|---|---|---|
| **Stage 1** | Activities by the losing unit staff<br>All the procedures to be followed to ensure that the equipment is presented to the storage unit in the required condition (see Annex A Appendix 1-5). | Chap 1 |
| **Stage 2** | Activities by the storage unit staff<br>Actions that will be undertaken at the storage unit to ensure that equipment entering CHE storage is in the required condition. | |
| **Stage 3** | Activities during CHE storage by the storage unit staff<br>Monitoring, inspection, modification and maintenance requirements necessary to ensure that equipment in CHE storage remains in an appropriate condition to minimise reactivation time. | Chap 2 |
| **Stage 4** | Activities on reactivation by storage unit staff and gaining unit staff<br>Actions that will be undertaken at the storage unit/gaining unit lines that ensure equipment is fit for issue after the storage period. | Chap 3 |

**GENERAL**

9 This chapter describes the procedures to be followed by units offering equipment to a storage unit for storage in CHE. The aim is to place equipment into CHE storage in an 'agreed state' that ensures that it is readily available for issue at short notice with minimal maintenance requirements during storage and reactivation.

10 It is essential that the following actions are carried out prior to entry into storage. Adherence to the 'agreed state' will minimise the risk of deterioration during storage and reduce/obviate the need for routine maintenance immediately after reactivation. The key tenet to this AESP is the requirement to ensure that equipment stored in CHE is stored at a high level of readiness.

**PRESENTATION STANDARD – 'AGREED STATE'**

11 Equipment offered for CHE storage is to be offered in accordance with the requirements detailed in this chapter. It is a losing unit's responsibility to ensure that equipment, offered to the CHE storage facility, meets the 'agreed state' requirements assured by Formation ES/ES Chain. Equipment that does not meet the 'agreed state' requirements will not be accepted by the storage unit staff. Unless authority has been granted by Army Eqpt-Ops-FM-SO1 (the Authority).

**JAMES Fully Fit**

12 Equipment must be classified 'fully fit' in accordance with JAMES Equipment States, i.e. JAMES Fully Fit (JFF). To be classified as JFF, equipment must have the correct:

12.1 Modification state: JAMES Modification State 1.

12.2 Maintenance tasks completed.

12.3 Up-to-date certification.

12.4 Completed Equipment Breakdown Structure.

12.5 No carried faults that effect safety, role or functionality.

13 The criteria for JFF are specified on JAMES and in SOPs, any concessions to the JFF standard must be sanctioned by the Authority.

## ACTIVITIES BY LOSING UNIT STAFF

### INSPECTION

14 CHE maintains the condition of equipment in storage but does not improve it. For equipment to be fit on issue from store it must be fit on entry. It is the responsibility of the issuing organisation to ensure equipment enters CHE at JFF standard. Prior to entry into CHE, at Unit lines (in barracks) or point of dispatch (out of barracks) units are to conduct a monitor inspection on the equipment. The monitor inspection provides the chain of command and the CHE storage facility with conformation that as a minimum the following has been done before arrival, to ensure it is at the correct standard for entry. The monitor inspection must be completed by unit Suitably Qualified & Experienced Person(SQEP) unit personnel who are not signatories on any of the equipment documentation, as a minimum confirm the following:

14.1 100% JAMES and documentation inspection.

14.2 100% modification and general instruction inspection.

14.3 JAMES/inspection report comparison check.

14.4 Equipment condition check.

14.5 CES check.

14.6 BOWMAN (BES) check.

15 At the conclusion of the monitor inspection, the losing organisation team leader is to complete Appendix 5 to Annex A. Completed monitor inspection reports (Annex A Appendixes 1-5) are to be faxed to the receiving storage facility.

NOTE

Units are to be aware that only the acceptance by the CHE SQEP is the equipment to be delivered to the storage facility. This mitigates against loosing organisations having to deploy staff to complete activities that could have been carried out in unit lines or additional work through delayed entry into CHE storage facility.

16 Upon arrival at the storage facility, the equipment will be subject to an assurance check by the CHE repair agency and receipting staff to confirm that the equipment delivery meets the entry standards. Non-compliant equipment will require rectification by the losing organisation before acceptance into the storage facility.

17 A Mandatory Equipment Inspection (MEI), in accordance with the equipment specific AESP/EMER, must be completed prior to transfer and at the point of transfer have 9 months remaining. All repairs identified by the MEI must be completed prior to transfer.

17.1 Equipment is to undergo its next major scheduled service, And any Out Of Phase Maintenance (OOPM) due during the periodicity of the next major service. This is to include changes of lubricants and filters as mitigation against the risk of deterioration caused by potentially contaminated lubricants. Equipment fitted with health usage and monitoring systems must also have oils and lubricants changed. When servicing equipment prior to storage, use normal lubricants as detailed in equipment specific AESPs.

17.2 Items with an out of service date of less than 3 months will not be considered for entry into CHE.

17.3 Main Armament weapon systems are to be offered complete and with associated CES items.

**MODIFICATIONS**

18 All Immediate modifications are to be completed by losing unit staff. Unless concession is given by the Authority

19 Losing unit staff are to embody any Routine modifications where modifications kits have been demanded and received in the unit. Any outstanding Routine modification kits demanded by the losing unit, not yet received, are to be transferred to the receiving storage facility. And when available the Authority will dictate who will carry out the embodiment.

19.1 Occasionally the Authority will determine that a Routine modification is embodied. In these situations, embodiment of the modifications will conform to the requirements of JSP 886. Direction is to be provided by the Authority, as to who is responsible for the embodiment of the modifications.

**DEMANDING OF SPARES**

20 Occasionally equipment may be required to move into CHE storage awaiting spares; aligned to authorised concessions. These transactions must be sanctioned by the Authority. In these situations, losing unit staff are to transfer all outstanding demands and forward all associated spares to the receiving storage facility, and record the known state and deficiencies on JAMES. This documentation must accompany the equipment. Where no demand has been placed authority is to be provided to the receiving storage facility to support a fresh demand. All repairable carcases or proof of return are to accompany the equipment.

**PREPARATION OF EQUIPMENT**

21 If relevant to the equipment, checks must be made to ensure that the following criteria are satisfied prior to submitting the equipment for CHE:

**Complete Equipment Schedule**

22 Equipment is to be offered complete with all Complete Equipment Schedule (CES) items. CES details are available in the relevant equipment specific AESP. The appropriate CES for each equipment identified for transfer, must be brought up to a fit condition for transfer with the main equipment, with by exception, any deficiencies recorded on JAMES and declared on transfer. Where required all mandated certifications are to accompany CES items. Where CES deficiencies are identified by losing unit staff they are required to make good those deficiencies. Where the losing unit identifies CES deficiencies and a demanded replacement is not available within 60 days the demand will be transferred to the receiving storage facility. All deficiencies are to be recorded on an ABF 6530 and forwarded to the receiving storage facility with any supporting documentation

**Fuel tanks**

23 Equipment that runs on diesel is to be stored with fuel tanks full. Equipment is to be filled prior to delivery to the storage unit and will be topped up by storage unit staff (if necessary) on arrival. Equipment that runs on petrol is to be delivered with minimum fuel in the tanks.

**Radios/Installation kits**

24 Vehicles fitted with BOWMAN are to be offered with all the necessary BOWMAN VIK, to ensure full BOWMAN capability. BOWMAN radio VIK must not be removed by the losing unit staff. BOWMAN fitted items are not to be retained by losing units. The losing unit is to conduct a functional test of the communications suite, endorsed by the unit Regimental Signals Officer (RSO), thus ensuring full functionality prior to CHE storage. The losing unit is to check all Bowman against TacSys (Bowman) mandated BUCK and request a supporting ABF6530 for all deficiencies

**Electronic Counter Measures (ECM)**

25 Losing units are to clarify the retention and return policy for VIK and loose ECM equipment. Loose ECM is not to be stored in CHE storage facilities.

**Ancillary Equipment**

26 Ancillary Equipment forms part of the vehicle and is to be offered complete with the vehicle.

**Cleaning**

27 Cleaning of equipment must be conducted in accordance with procedures detailed in equipment specific AESPs/EMERs. As a general rule, the following general procedures must be adopted when cleaning equipment in preparation for CHE storage:

27.1 Equipment cleaning: Exterior and interior surfaces are to be free of dirt, grease and other contamination. Contaminants are to be removed by any method that will not damage the equipment. Ensure that all mud, dirt and debris is removed from suspension, wheels, wheel arches and tracks, equipment storage bins etc.

27.2 Corrosion: It is essential that all loose rust is removed and bare metal is covered with paint specific to the equipment (refer to relevant equipment specific AESP for paint details).

27.3 Cleaning optical equipment: In the first instance reference must be made to the relevant AESP for cleaning of optical equipment. External optical surfaces must be free from dirt, grease and fingerprints. Cleaning must be carried out with methylated spirits (absolute) or lens cleaning tissue. Do not scratch the lenses. Eyepieces must be disinfected. Metal surfaces must be cleaned with methylated spirits.

27.4 Hydraulics: Equipments fitted with hydraulics are to be free from leaks and where untreated surfaces (hydraulic rams, including crane and shafts) are to be cleaned with a lint free cloth. See equipment AESPs for further details.

27.5 Preservatives: There is no need to use any preservatives in a CHE storage medium.

**Bulk fuel tanks**

28 Bulk fuel tanks are to be chemically cleaned and issued with the correct certification prior to entry into long term CHE. ADR Certificates must be presented with equipment documentation.

29 It is essential that tanks are cleaned rather than just degassed (refer to equipment specific AESP).

**Tyres**

30 Ensure all moisture traps on compressors are serviceable in order to ensure that air used to inflate tyres is as dry as possible. Ensure tyres are inflated to the correct pressure and valve caps are fitted.

**Calibration/load testing**

31 Equipment is to be transferred with all calibration/load testing 'in date'. This will be confirmed via the MEl Certificates which must be presented with equipment documentation.

**EQUIPMENT DOCUMENTATION**

32 On transfer of equipment, documentation must be presented complete and up-to-date. Prior to presentation for transfer, units are to ensure that the following are actioned and updated on JAMES:

32.1 Vehicle documents correctly reflect the Equipment State including the Equipment Breakdown Structure (EBS).

32.2 Documents include the last inspection reports and certificates.

32.3 Modification record is up-to-date, including a copy of the AF B9928.

32.4 A current live job card is to accompany the documents. If there is no work present on the equipment then a note of "Nil Outstanding Tasks" is to be clearly written on the job card with accompanying name and signature.

32.5 The last two years of Vehicle Maintenance History must be correctly recorded in the vehicle documents and accompany the vehicle at the time of transfer. JAMES updates will show all vehicle maintenance history.

32.6 Bulk fuel carrier tank cleaning/load testing/calibration certificates are provided, where applicable.

32.7 Free From Explosive (FFE) certificates produced, authorised and presented to the receiving storage facility.

32.8 Lifting and recovery equipment birth certificates and test certification.

**INVENTORY ACCOUNTING AND MANAGEMENT INFORMATION**

33 The Authority will be operating a range of Management Information Systems (MIS) and inventory accounting systems. Management of the Joint Deployment Inventory (MJDI) will provide the inventory accounting system, whilst JAMES will provide the fleet MIS.

34 Losing unit staff are to transfer equipment and associated CES via a MJDI issue voucher and JAMES. The storage unit staff, after acceptance of equipment, will then complete the MJDI voucher and JAMES acceptance process. The transfer is considered a permanent change of ownership.

35 BOWMAN assets are to be transferred separately from the main equipment on MJDI as a Bulk Stock Transfer (BST). Registered items as mandated by TacSys are also to be transferred on JAMES.

**QUALITY ASSURANCE**

36 The respective Divisional ES Commander is ultimately responsible for assurance that equipment offered for CHE storage is presented as JFF unless concessions are sanctioned by the Authority. Logistic Support Inspection (LSI), Logistic Support Technical Inspection (LSTI) and Equipment Care Inspection (ECI) are HQ Army assurance checks on all LAND units. All LAND equipment will remain subject to LSI, LSTI and ECI requirements. All units are to ensure compliance with all extant inspection criteria. Further assurance activity will be completed by Formation/Army HQ through activities such as Ex TRACTABLE.

**TRANSPORT**

37 The issuing unit/organisation is responsible for arranging transport to the CHE facility, this could be via rail or road and could be self-drive, commercial hire via DSCOM or military transport such as Heavy Equipment Transport (HET) or Light Equipment Transport (LET), this is paid for from the unit transport budget.

37.1 Transport is only to be arranged on confirmation of acceptance by the receiving storage facility. This will be given when the forms at Annex A - (Appendixes 1-5) have been received. and checked by the receiving storage facility on JAMES.

## ACTIVITIES BY STORAGE UNIT STAFF

**GENERAL**

38 This section details the procedures to be followed by storage unit staff prior to equipment being placed in CHE storage. The aim is to place equipment into CHE storage in a condition that minimises the risk of deterioration during the storage period and maximises readiness prior to reactivation. The required presentation standard is described above. It is the losing unit's responsibility (Formation ES Commander) to bring the equipment up to this standard prior to delivery to the storage unit (refer to Paras 14 to 37).

39 Where it is necessary to deviate from the agreed standard detailed in Para 11, written authorisation must be obtained from the Authority.

40 Movement into store will generally take place as part of steady state pre-planned activity and will mostly be carried out by the on-site workforce. The main exception to this will be equipments returned to store following a breakout exercise, which will require support from a Deactivating Group from the exercising formation.

41 It is the responsibility of the Repair Agency to meet the arriving equipment and handle as required, i.e. drive the vehicle off the train, truck etc. to the appropriate location ensuring all H&S requirements are met.

42 BOWMAN and CES items will be removed from the equipment prior to entering CHE, stored and managed by Repair Agency personnel. For equipments R5 and above, items will be boxed and identified to that specific equipment by VRN, in order to streamline the breakout process. Boxes will be issued for fitting or alternative onward movement on breakout.

43 Electronic Counter Measures (ECM) equipment is centrally managed and stored in a different location to the CHE.

**SERVICING**

44 There is no requirement to service equipment whilst it is being stored in CHE storage providing the relative humidity remains lower than 50% for at least 95% of the period in storage. Documentary evidence of RH values is to be retained by the storage unit staff for auditing purposes.

**INSPECTION**

45 To ensure that equipment entering storage meets the JFF standard, storage unit staff are required to carry out a 100% documentation check along with a 100% CES check. Storage unit staff are also required to carry out a visual inspection (this will be a non-invasive inspection to check for cleanliness and obvious faults) for all equipment to ensure that it meets the requirements detailed above. The documentation accompanying the equipment must include all documentation detailed in Para 32.

46 A CHE storage handover/takeover check sheet is at Annex A to this chapter. The check list must be used to confirm all requirements mentioned above have been met by the losing unit staff. It is suggested that the Handover/Takeover process is conducted simultaneously to reduce manpower effort.

47 If relevant or where faults are identified that have not been recorded on Appendixes 1-5 the equipment is to undergo a full inspection in order to ensure only JFF equipment enters CHE.

**Drying of Equipment**

48 The equipment must be as dry as possible on entry to CHE. This will reduce the workload on the dehumidification units and result in more efficient drying throughout the storage facility. Subject to all other above-stated requirements being met, storage unit staff will still accept equipment if it has been raining on the day of the transaction.

**Brake Fluid**

49 Vehicles in CHE storage are to have their brake fluid changed at the 5 year point following the last recorded change. All brake fluid changes are to be recorded in the appropriate section of the vehicle documentation, and updated on JAMES.

**Equipment Fuel Tanks**

50 Diesel tanks are to be checked to confirm they are full. There may be a requirement to 'top' the tanks up to 'full'. Petrol tanks must be checked to confirm that they are, as near as practicable, empty.

**Bulk Fuel Carrier Tanks**

51 Once a tank has been cleaned and certified, it is sealed (lock wired) by the certifying company, if the seal is broken the vehicle is no longer deemed clean. The equipment AESP is to be referred to for full details.

**Batteries**

52 On entry to storage all batteries are to be analysed as part of the 62 point check (Annex A) and maintained/replaced as required. While in storage all batteries are to remain on the equipment and are to be maintained via a battery management system (BMS), capacity will be maintained through the BMS, which will provide battery charging and conditioning via a BMS charging trolley. All CHE storage facilities are to have this capability.

**Fire Extinguishers**

53 Fire extinguishers should be checked upon receipt and re-certified where possible. Fire extinguishers failing upon receipt should be subject to DR action and re demanded as necessary

**Vehicle Mounted Communications Equipment**

54 Storage unit staff are to confirm that the losing unit staff have conducted a communications functional test, endorsed by their Regimental Signals Officer. (Appendix 4 applies) Post functional testing all Communications equipment **must remain** fitted to vehicles, as applicable, and will be removed upon arrival at the CHE storage facility unless directed otherwise by the Authority.

**Optical Equipment**

55 All sights, where applicable, are to remain fitted to the vehicle. Spare sights are to be stored in their storage boxes, with lids or covers open. Optical sights must be checked to ensure that they have been cleaned and disinfected as detailed in Para 27.3.

**Night Vision Equipment**

56 Image Intensification (II) tubes degrade due to exposure to light and as a direct result of the chemical reaction created when in use. When placed in CHE, cover all night vision equipment to protect it from the light. Special instructions for night vision equipment may be contained in equipment AESPs.

**Fitted Weapon Systems**

57 Fitted weapon systems are to be stripped in accordance with the equipment's specific AESP.

**Hulls of Armoured/Tracked Vehicles**

58 All voids, spaces and hulls are to be drained of excess liquid prior to being placed in storage. Hull drain plugs must be removed and stored on the equipment (the plugs will already be attached to the hull via a chain) and drip trays placed under the drain hole. All hatches are to be secured open.

**Challenger 2**

59 Refer to AESP 2350-P-102-601 for specific measures for CHE storage and activation.

**WARRANTY REPAIRS AND MODIFICATIONS**

60 Whenever deemed necessary by staff/Storage Site Manager, warranty repairs and modifications can be carried out on stored equipment. All such work is to be documented. This work must be sanctioned by the Authority as to who will carry out the repairs and or modifications.

**PRESERVATIVES**

61 Preservatives are only to be used in accordance with equipment specific AESPs.

**CES**

62 CES for equipment is to be held by the storage unit staff. On initial receipt by storage unit staff, CES is recorded against the original equipment and, in the event of any deficiencies, the losing unit staff are to be provided with the opportunity to make good the deficiencies before JSP 886 discrepancy accounting action is taken (Discrepancy Reporting (DR) action). Thereafter, once the CES has been brought up to standard and is complete to scale the storage, unit staff are to store the CES in CHE where possible.

**PLACEMENT INTO STORAGE**

63 The equipment is to be placed in the appropriate storage facility and the MIS administration (e.g. JAMES and MJDI) updated.

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## CHAPTER 1 ANNEX A

### CHE EQUIPMENT HANDOVER/TAKEOVER CHECK SHEET (STORAGE FACILITY TO COMPLETE)

Unit …… ERM ……Asset Code ……..

Designation ……Chassis No ……..…

Speedo/Hrs Run (at MEI) ……Speedo/Hrs Run (on receipt) …….

MEI Date[1]..…… Receipt Date[1]……..Maintenance Date[2]…….

CES Location ……

| SER | FUNCTIONAL CHECK | IN | OUT | SER | FUNCTIONAL CHECK | IN | OUT |
|---|---|---|---|---|---|---|---|
| | **Body** | | | | **Driver Compartment/Cab** | | |
| **01** | Exterior Cleanliness | | | **32** | Visual Damage | | |
| **02** | Visual Damage | | | **33** | Cleanliness | | |
| **03** | Paintwork | | | **34** | Seats/Belts/Harness | | |
| **04** | Vehicle Bins/Cages | | | **35** | Cupola Cover | | |
| **05** | Doors (incl isolator/restraints) | | | **36** | Windows | | |
| **06** | Superstructure/Canopy | | | **37** | Hatch Locks | | |
| **07** | Reflectors/Mirrors | | | **38** | Turret Lock(ed) | | |
| **08** | Hull Plates Removed/Replaced | | | | **Electrics & Lights** | | |
| | **Attachments** | | | **39** | Headlights (Low/High Beam) | | |
| **09** | Gun Clamp(ed) | | | **40** | Sidelights | | |
| **10** | Towing Pintle (front/rear) | | | **41** | Indicators/Hazards | | |
| **11** | Electrical/Airline Covers | | | **42** | Brake lights | | |
| **12** | Mud Guards/Flaps | | | **43** | Fog Light | | |
| | **Tyres/Wheels/Tracks** | | | **44** | Reversing Light | | |
| **13** | Tyre Pressures | | | **45** | Convoy Light | | |
| **14** | Condition | | | **46** | Interior Light(s) | | |
| **15** | Spare | | | **47** | Working Light(s) | | |
| **16** | Dust Caps | | | **48** | Warning Light(s) | | |
| **17** | Wheel Nuts | | | **49** | Gauges | | |
| **18** | Track Links/Pins/Pads | | | **50** | Horn | | |
| | Track Tension | | | **51** | Wipers | | |
| | **Fluid Levels** | | | **52** | Washers | | |
| **19** | Fuel Diesel/Petrol: Full/Empty | | | | **Ancillaries** | | |
| **20** | Main Engine | | | **53** | Safety Restraints/Clamps | | |
| **21** | GUE | | | **54** | | | |
| **22** | Gear Box | | | **55** | | | |
| **23** | Transmission | | | **56** | | | |
| **24** | Hydraulic | | | | **Others** | | |
| **25** | Power Steering | | | **57** | | | |
| **26** | Brake Reservoir | | | **58** | | | |
| **27** | Clutch Reservoir | | | | **Start Engine** | | |
| **28** | Hub levels | | | **59** | Check for Leaks | | |
| **29** | Final Drives | | | **60** | Check Handbrake | | |
| **30** | Coolant Reading | | | **61** | Check Foot Brake | | |
| **31** | Washer Bottle | | | **62** | Checking Steering | | |

NOTES

(1) Equipment Receipt date must not exceed 90 days from the last MEI 'Fully Fit' date.

(2) Equipment must have undergone its next scheduled service prior to receipt into long term CHE. (continued)

**BATTERIES**

| **Automotive Correct CCA ……** | | | | | **Radio/NBC Correct CCA ……** | | | | | **Turret/Other Correct CCA ……..** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ser** | **Volts** | **CCA** | **In** | **Out** | **Ser** | **Volts** | **CCA** | **In** | **Out** | **Ser** | **Volts** | **CCA** | **In** | **Out** |
| **1** | | | | | **1** | | | | | **1** | | | | |
| **2** | | | | | **2** | | | | | **2** | | | | |
| **3** | | | | | **3** | | | | | **3** | | | | |
| **4** | | | | | **4** | | | | | **4** | | | | |

**I certify that I have checked all the above items and all observations/damage/faults are recorded as follows:**

| **Ser*** | **Vehicle/Equipment Observation/Damage/Fault** | **Action/Remarks** | **Faults Completed (for CHE use only)** |
|---|---|---|---|
| **1** | | | Date:<br>Name: |
| **2** | | | Date:<br>Name: |
| **3** | | | Date:<br>Name: |
| **4** | | | Date:<br>Name: |
| **5** | | | Date:<br>Name: |
| **6** | | | Date:<br>Name: |

* Functional Check Serial No. e.g. 40 (Sidelights)

NOTE

All checks are to be carried out in accordance with equipment specific AESPs.

**RECEIPT**

**Unit Rep**

Number: ……

Rank: ……

Name: ……

Signature: ……..

**CHE Rep**

Number: ……

Rank: ……

Name: ……

Signature: ……..

**ISSUE**

**Unit Rep**

Number: ……

Rank: ……

Name: ……

Signature: ……..

**CHE Rep**

Number: ……

Rank: ……

Name: ……

Signature: ……..

## CHAPTER 1 ANNEX A APPENDIX 1

## EQUIPMENT STATUS SHEET 1 – DOCUMENTS

| UNIT | ERN / SER NO | EQUIPMENT DESIGNATION | ASSET CODE | SPEEDO / HRS |
|---|---|---|---|---|
| | | | | |

### INSPECTION AND SERVICING DETAILS

<table>
<tr><th>MEI DATE</th><th colspan="2">DOES ALL OOP HAVE 9 MONTHS REMAINING?</th><th>LAST SERVICING DATE</th><th>LAST SERVICING TYPE<br>(12/24/36 Monthly)</th></tr>
<tr><td rowspan="3"></td><td rowspan="3">YES</td><td rowspan="3">NO</td><td>Service Tasks:</td><td>Service Task:</td></tr>
<tr><td>VM Tasks:</td><td>VM Tasks:</td></tr>
<tr><td colspan="2">Date of Last Brake Fluid Change:</td></tr>
</table>

### ADR CERTIFICATION DETAILS

| ADR/GGVS INSPECTION DATE | ADR/GGVS INSPECTION CERT IN DOCS | TANK TEST DATE | TANK TEST CERT IN DOCS (Y/N) | DEGASSING DATE | DEGASSING CERT IN DOCS (Y/N) |
|---|---|---|---|---|---|
| | | | | | |

**SPECIAL TO ROLE CERTIFICATION** (Winches, Cranes, Forks, Spades, Air Receivers)

| TEST TYPE 1 | DATE OF CERTIFICATION | TEST TYPE 2 | DATE OF CERTIFICATION | TEST TYPE 3 | DATE OF CERTIFICATION |
|---|---|---|---|---|---|
| | | | | | |

**INSPECTOR'S NAME**……..**DATE**……**UNIT**……..
Liaison Notes:

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## CHAPTER 1 ANNEX A APPENDIX 2

## EQUIPMENT STATUS SHEET 2 - OUTSTANDING MODIFICATIONS

ERM: ……..

This is not a Modification Record Sheet; it is only to be used to highlight outstanding modifications. A copy of the equipment modification sheet (as per Army Form B 9927 Modification Record Sheet) is to be attached to this appendix. Continuation sheets are to be produced as required.

| SER | MOD NO | PRI (I/R) | LEVEL (U/F/B) | MODIFICATION SUBJECT | STATUS A/L, A/S, A/F | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | |
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INSPECTOR'S NAME…….....DATE……UNIT……..
Liaison Notes:

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## CHAPTER 1 ANNEX A APPENDIX 3

## EQUIPMENT STATUS SHEET 3 - OUTSTANDING TASKS

ERM: ……

Continuation sheets are to be produced as required.

| SER | DESCRIPTION OF TASK | EQUIP STATUS | TASK STATUS (A/L, A/S, A/F) | DEMAND NO | DEMAND DATE | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | |
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**INSPECTOR'S NAME**……..**DATE**……**UNIT**……...

Liaison Notes:

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## CHAPTER 1 ANNEX A APPENDIX 4

## EQUIPMENT STATUS SHEET 4 – BOWMAN

Unit: ……..

This is to certify that:

A Communication Functional Test has been completed on this platform just prior to the equipments movement to the storage facility.

A 100% check of the BOWMAN platform has been carried out against the latest BOWMAN Platform Schedule (BPS).

All Cryptographic storage devices have been purged and debriefed in accordance with BOWMAN SOPs.

The BACMs Deployment File has been exported to the CDRS in accordance with the BACMs Handbook to facilitate the receipt transaction.

| **Platform** | | **VRN** | | **Date of communications function test** | |
|---|---|---|---|---|---|

The following items were found to be faulty during the communication function test:

| **Ser** | **Equipment** | **Ser No** | **Fault** |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

**Unit RSWO (or equiv)**

| **Name:** | | **Appt:** | | **Unit:** | | **Signature:** | | **Date:** | |
|---|---|---|---|---|---|---|---|---|---|

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## CHAPTER 1 ANNEX A APPENDIX 5

## EQUIPMENT STATUS SHEET 5 – SUMMARY

Unit: ……

Continuation sheets are to be produced as required.

Final JAMES reconciliation check.[1] Name……Unit……Rank……Signature……..Date……..

[1] By signing, the Monitor Inspector is confirming that all tasks identified, completed or outstanding following the monitor inspection process have been correctly entered onto JAMES.

| SER | ERN | EQUIPMENT DESIGNATION | ASSET CODE | ACCEPTABLE | TASKS OUTSTANDING | UNACCEPTABLE |
|---|---|---|---|---|---|---|
| | | | | | | |
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## CHAPTER 2

## INSPECTION AND MAINTENANCE DURING STORAGE

## CONTENTS



### GENERAL

1 The procedures laid down in this chapter have been designed to minimise the risk of equipment deteriorating during the storage period.

2 As a general rule, all equipment must be left alone as much as possible during the storage term. Modifications will be embodied at the direction of Army HQ and PTs. Due to the technical implications of disturbing equipment that has been prepared for storage, it is essential that all work on 'in-store' equipment is authorised via Army HQ and PTs. Storage unit staff are responsible for ensuring that equipment is maintained at the required levels of readiness, as dictated by Army HQ. The responsibility for requirements detailed in this chapter lie with the storage unit staff.

### INITIAL MONITORING

3 An initial check is to be made for any obvious signs of oil/coolant leaks, flat tyres etc. approximately 4 weeks after entry into CHE storage. These checks must be recorded under storage unit local arrangements. Safety Inspections requirements must be endorsed by Army HQ and the applicable PT ESM.

### EXERCISING OF EQUIPMENT

4 There is no requirement to exercise equipment during CHE storage.

### MODIFICATIONS/GENERAL INSTRUCTIONS

5 Modification states of stored equipment must be kept up-to-date on JAMES and entered into vehicle documentation. All Immediate modifications are to be embodied whilst equipment is stored in CHE. There will be instances when it will be necessary/beneficial to complete urgent/routine modifications whilst the equipment is still in CHE storage; such instances MUST be sanctioned by the Authority and the applicable PT Equipment Support Manager, storage unit maintenance provider and/or applicable contractor. The following actions are to take place whenever a modification is undertaken on equipment in storage:

5.1 Where feasible, work must be undertaken in the CHE storage facility environment by in house personnel / contractors. If this is not possible (e.g. if out-inspecting would involve running the equipment engine), storage facility staff are to ensure that all such work is inspected prior to reactivation. Work must be accurately documented, and where possible 'out-inspected' as soon as it is completed. This remains a storage facility staff responsibility (see Para 7).

5.2 Where Modification/General Instruction kits are demanded but not fitted, the kits will be stored on the equipment until the next maintenance period. Local documented procedures are to be established to ensure that all such outstanding work is recorded to prevent it being overlooked during any maintenance period/reactivation phase.

**WARRANTY WORK**

6 It is essential that Army HQ, PT Equipment Support Managers, storage unit staff, storage unit maintenance provider and/or applicable contractor are consulted prior to any decision to undertake such work on stored equipment. Where possible all such activity should be undertaken in the storage facility.

**EQUIPMENT IDENTIFIED AS 'HIGH READINESS EQUIPMENT'**

7 Army HQ may specify equipment as 'High Readiness Equipment' for example equipment designated for the Vanguard Stored Operational Fleet (VSOF). Any equipment designated as 'High Readiness Equipment' may require additional maintenance and inspection requirements. Storage facility staff, the storage facility maintenance provider and/or applicable contractors may require access to these vehicles for any directed tasks. Direction will be provided by Army HQ.

**MAINTENANCE PROCEDURES**

8 The following procedures are required during storage:

8.1 6 Monthly Inspections: The storage facility is responsible for completing a visual inspection on every equipment in CHE every 6 months. This consists of a visual walk around to ensure there is no obvious degradation to vehicle components such as corrosion or flat spotting of tyres as well as ensuring that no fluids are leaking from the equipment such as fuel or oils, additionally, batteries must be tested where practical. A JAMES triage is to be conducted to asses' outstanding work from receipt and any modifications work emerging since receipt. Any faults found must be recorded on JAMES and reported to the FM C2 cell and then remediation work will be completed. The storage facility must produce trend analysis data on faults as part of continuous improvement and brief this data to Army HQ on a monthly basis.

8.2 MEI: Equipment designated as VSOF in CHE is to be subject to a MEI/Legislative certification programme so that they are always kept in date, the Repair Agency is responsible for completing this. This will take place in the vehicle inspection facility on-site. Wheeled vehicles allocated to VSOF will receive a MEI by Repair Agency personnel when issued for routine business, for an operational or exercise breakout scenario, the MEI could be carried out by Repair Agency personnel in situ or Mounting Group/Army personnel at a nominated location.

8.3 Battery Management: While equipment is in CHE it will be connected to a Battery Management System (BMS) to maintain the integrity of equipment batteries. Provision will be required to ensure all equipment batteries (e.g. automotive, turret, MIS) can be connected in the most efficient manner. See Para 42 where access and platform suitably allows equipment may not be rotated through BMS dependent upon availability

8.4 Lifed Item Management: Any items of equipment that have a shelf life or certification requirement such as fire extinguishers, first aid kits, torque wrenches and Lifting Operations and Lifting Equipment Regulations (LOLER) lifting equipment will be removed from the equipment with the rest of the CES, BOWMAN Equipment Schedule (BES) items will be subject to regular maintenance and AB2029 inspection regime. Lifed items that are integral to the equipments, such as elastomeric items, will be managed on JAMES and replaced at the next suitable service/inspection point, not necessarily the day it goes out of life.

8.5 Modifications: Modifications to fleets will be managed by the Authority and appropriate DE&S PTs taking 8.2 above into account for VSOF equipments. Where possible, these will take place while the equipment is in CHE hangars. More major modifications may require equipment to be removed from CHE to allow the modification to take place in the workshops.

8.6 Fleet Rotation: To maintain proportional equipment usage across the fleets, it is planned that 10% of the equipment within CHE will be rotated on an annual basis. This may rise to 20% for some complex armoured vehicles.

8.7 Maintenance: Although the planned maintenance clock stops for equipment in CHE storage, a maintenance requirement may emerge from any of the receipt, management in storage or issues activities. Where possible this maintenance will be carried out on site, either in CHE, or in the co-located workshop. It is assumed that the majority of work on site will be at Level 1 and 2, but some activity may require more time or Specialist Tools and Test Equipment (STTE) that would make it Level 3. E.g. 5 yearly brake fluid changes.

8.8 Fleet Rotation: As part of Fleet Management, it is estimated that 10% of the vehicles in CHE will be rotated on an annual basis. The Repair Agency will be responsible for actioning the process of fleet rotation on the direction of the FM C2 cell.

**ASSURANCE**

9 There are two main types of assurance required during storage:

9.1 Assurance that the CHE is performing correctly. The Repair Agency is responsible for monitoring the environmental readings of the CHE to ensure that conditions remain between 40-50% humidity.

9.2 Assurance that the equipments are being inspected and kept at the correct readiness will be provided by scheduled quality assurance visits to CHE locations by Army HQ Chief Engineer staff and REME personnel from Vanguard units. The use of personnel from Vanguard forces will have a secondary advantage of providing user confidence in CHE.

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# CHAPTER 3

# ISSUE POST STORAGE

## CONTENTS



## GENERAL

1 The reactivation phase will involve concurrent activity between storage unit staff and gaining unit staff. It is essential that early liaison between all parties is carried out, in order to ensure that all activation activities are carried out in an efficient and expedient manner. For reactivation of greater than a sub unit's worth of equipment, direction will be given via the Authority. This direction will include specific responsibilities of the storage unit staff, gaining unit staff, storage unit maintenance provider, reactivation party and any contractor support requirements.

2 Issue from storage can be categorized into two main types:

2.1 Routine steady state activity.

2.2 Operational breakout or readiness test exercises.

### Routine Steady State Activity

3 Routine steady state activity is generally pre-planned, involves low numbers of equipments per transaction (up to 20) and will be carried out by the on-site workforce.

4 The issue activity post CHE storage will be:

4.1 Before Use Maintenance: Prior to being removed from CHE, the storage facility is responsible for removing the BMS and re-connecting batteries as required. They will then complete a first parade/before use inspection.

4.2 Removal from CHE: The storage facility is responsible for physically driving the equipment out of the CHE to the next step in the issue process.Pre start up activity as defined in the equipment AESP must be adhered to.

4.3 Issue CES: The storage facility is responsible for the re-issue and confirming the state and certification of all CES, and for fitting it to the equipment.

4.4 Issue BES: The storage facility is responsible for the re-issue of the equipment BES. The JAT is to clearly identify the duel issue process. the -issue of the equipment BES and for fitting it to the equipment as required.

4.5 MEI: If a MEI is required, the storage facility is responsible for completing it in situ at the vehicle inspection facility.

4.6 Emerging MRO 1-3 Activity: If any emerging maintenance work is required on the equipment to bring it up to a JAMES Fully Fit standard, then this will take place in the Level 3 maintenance facility by the Storage facility.

4.7 Equipment Handling: The Storage facility is responsible for the physical loading of the equipment to the specified mode of transport; this could be train or truck etc ensuring that all H&S requirements are met. The shipping paperwork will be raised by the Storage facility.

4.8 Administration: The Storage facility is responsible for ensuring that all MIS such as JAMES state being updated and MJDI inventory transfers are updated to reflect the latest information. Equipment paperwork and associated keys are to be transferred with the equipment.

**Operational Breakout or Readiness Test Exercises**

5 Operational breakout will be at short notice, involve large numbers of equipments (up to 3,000) and will require a Mounting Group to reinforce the on-site workforce. Readiness test exercises will follow a similar pattern to operational breakout, but are likely to involve a representative sample of equipments and may not complete the full break out process.

5.1 The Mounting Group (MG) is a mixture of vehicle crews, ES personnel and Real Life Support (RLS) provided by the co-ordinating authority that will physically break the vehicles out of CHE.

6 Issue activity post CHE storage will be:

6.1 Before Use Maintenance: Prior to being removed from CHE, storage facility or MG personnel are responsible for removing the BMS and re-connecting batteries as required. Either the Storage facility or the Mounting Group will then complete a first parade/before use inspection.

6.2 Removal from CHE: MG is responsible for physically driving the equipment out of the CHE to the next step in the issue process.

6.3 Issue CES: The storage facility is responsible for the re-issue of the equipment CES. The MG is responsible for fitting it to the equipment.

6.4 Issue BES: The Storage facility is responsible for the re-issue of the equipment BES, the MG are responsible for fitting it to the equipment as required.

6.5 MEI: If a MEI is required, the Storage facility or the MG is responsible for completing it in situ at the vehicle inspection facility. If it is to take place at a location different to where the CHE is located, the MEI will be conducted by Army personnel.

6.6 Emerging MRO 1-3 Activity: If any emerging maintenance work is required on the equipment to bring it up to a JAMES Fully Fit standard, then this will take place in the Level 3 maintenance facility by the MG or Storage facility. If this does not fit the breakout timeline then an alternative vehicle will be sourced where available.

6.7 Administration: The Storage facility is responsible for ensuring that all MIS such as JAMES state being updated and MJDI inventory transfers are updated to reflect the latest information. Equipment paperwork and associated keys are to be transferred with the equipment.

6.8 For an operational breakout or readiness test exercise, the on-site work force act primarily as an enabling organisation, supporting the military Mounting Group who will be responsible for the majority of the activity.

**BULK FUEL TANKS**

7 The following functions are to be carried out by unit storage staff/gaining unit staff and any reactivation party staff that have been nominated by the Authority

7.1 Remove any BMS battery charging cables and ensure batteries are secured and fit for purpose. Re-install batteries if removed for storage.

7.2 Equipment will have been serviced prior to entry into CHE storage and therefore will not require servicing on reactivation. However, it is vital that all inspections and certifications required by road going vehicles are carried out prior to issue to ensure compliance with UK and German legislative requirements. (Details are included in individual equipment specific AESPs).

7.3 Carry out full functional test of equipment, ensuring that all systems reach normal operating temperatures/pressures.

7.4 Full Mandatory Equipment Inspection (MEI) if date expired and rectification of faults found to bring the equipment back to the JFF standard.

7.5 Complete any applicable Urgent/Routine Modifications and General Instructions. This may include climate specific requirements (desertification etc.).

7.6 Carry out load tests or re-certify where applicable.

7.7 Calibrate or re-certify equipment where required.

**FIRST AID KITS**

8 Ensure all items are serviceable and in date for use.

**VEHICLE MOUNTED COMMUNICATIONS EQUIPMENT**

9 Conduct communications systems checks including any 'Plug Up' requirements. 'Plug Up' requirements must be completed by gaining unit staff. Gaining units must pay particular attention to the configuration of Bowman assets issued from equipment File, XML File and BCIP, versions will be provided separately under direction of the deploying formation. Depending on the task, gaining units must also allow time to load geographical data and staff work prior to deployment. Further advice must be sought from the local Bowman System Manager. These factors will need to be considered during any reactivation planning.

**OPTICAL AND SIGHTING SYSTEMS**

10 Check all components for signs of degradation and repair/replace where necessary. If necessary, refill all sight washer bottles in accordance with the relevant AESP. Carry out functional tests as directed by the relevant AESP within the constraints of the storage site real estate. Sight alignment tests must be carried out by the gaining unit staff.

**FITTED WEAPON SYSTEMS**

11 Check all components for signs of degradation and repair/replace where necessary. Assemble the weapon system in accordance with the equipment specific AESP. Carry out functional tests as directed by the relevant AESP. Sight alignment tests must be carried out by the gaining unit staff.

**HULLS OF ARMOURED/TRACKED VEHICLES**

12 Refit all hull drain plugs.

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# ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) - FORM 10

| *AESP/EMER NUMBER: | | *IS THIS SAFETY RELATED? | Yes | ☐ | No | ☐ |
|---|---|---|---|---|---|---|

| Send Form 10 via the Email or Post address. However email is preferred. | Tel | 030 679 71141 or 9679 71141 |
|---|---|---|
| Email: DESLE-Form10@mod.uk<br>(Save a copy of the form and email to the above address. If the link fails, copy address and paste into email client) | Post to | Form 10 Cell<br>Land Equipment<br>Elm 3b **#4330**<br>MOD Abbey Wood<br>Bristol<br>BS34 8JH |

## ORIGINATORS DETAILS

| *Address | | *Name | |
|---|---|---|---|
| | | Rank / Grade | |
| | | *Phone | |
| | | *Senders Reference | |
| | | *Date Raised | |
| * E-Mail | | Eqpt Asset Code (if applicable) | |

## AESP/EMER DETAILS

| *Full Title of AESP/EMER (Not the AESP/EMER Number) | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Edition | *Amendment | *Chapter | *Page | *Paragraph | Figure | Instruction | Other |
| | | | | | | | |

*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.

## FORM 10 CELL USE

| *Date Received | | *Form 10 Reference | |
|---|---|---|---|
| *Date Sent to PT / SME | | Problem Report | |

## PROJECT TEAM / SME RESPONSE TO COMMENTS:

| Project Team (PT) / SME | | *Sponsors Name | |
|---|---|---|---|
| *Phone | | Rank / Grade | |
| *Email | | *Date Received | |

| *The following action is to be carried out: | Mark: | | Mark: |
|---|---|---|---|
| Issue a revised/amended AESP/EMER: | | Under investigation: | |
| Incorporate comment(s) in future amendments: | | No action required: | |

**Remarks:**

| SPONSOR/PT FINAL CLOSURE STEPS | Mark: | Form 10 Cell notified of Date action taken | Date: |
|---|---|---|---|
| Form 10 Originator notified of the action taken: | | | |



* Mandatory Fields for Originator

* Mandatory Fields for Sponsor.

# ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) - FORM 10

Form 10 Guidance

Form 10 can be found within the AESP or, as a template, from the JAMES Portal (Hot Topic – Forms) & TDOL (FORM10).

**Originator responsibility** is to enter the following details marked *:

- In the **AESP/EMER Number:** cell enter the full document number e.g. AESP 1256-I-400-711.
- Is this **Safety Related**? – select Yes or No as appropriate.
- Originator Details:
  - Full address Inc Post Code or BFPO NO.
  - Originator email address
  - Senders Reference – that must be unique.
- AESP Details shall enter the following details:
  - The Full Title of AESP/EMER should not include the AESP/EMER Number
  - Enter details in all other mandatory fields marked **.
  - Additional information relating to the Comments (AESP copies, additional text details or photographs) should be attached to the Email at the same time.
- Originator makes up the Form 10 & Sends to Form 10 cell via
  - Email: Save a copy of the form and send to DESLE-Form10@mod.uk Copy the address and paste it into your email client
  - Post to Form 10 Cell Form 10 Cell, Land Equipment, Elm 3b #4330, MOD Abbey Wood, Bristol, BS34 8JH.
  - **Any AESP that holds a Security marking higher than 'Restricted' should be securely circulated.**

**FORM 10 CELL responsibilities**:

The Form 10 Cell enters:

- Date Received
- Form 10 Reference
- Date sent to Sponsor
- Register all Form 10 details in the MOSS Form 10 Tracker.

**Sponsor Responsibility**

The Sponsor will:

- Enter their name, email address & phone contact details.
- Enter Date Received
- Enter Details in the non-mandatory field as & when required.
- Acknowledge receipt of Form 10, within 5 working days, by email to Form 10 Cell.
- Assess the contents of comments and details received.
- Mark the relevant Action box and fill out the Remarks field.
- Enter date when the Form 10 is returned to Form 10 Cell.
- Email copy of completed Form 10, within 6 weeks, to the Form 10 Cell and Originator.

**Form 10 Cell on receipt will:**

- Record final stage of the Form 10 into the MOSS Form 10 Tracker.
- Close off the Form 10 and archive.



* Mandatory Fields for Originator

** Mandatory Fields for Sponsor.