

► This RA has been substantially re-written; for clarity no change marks are presented – please read the RA in its entirety ◀

## RA 4963 - Modifications and Repairs - MRP Part M Subpart C

### Rationale

*Air System Modification and Repair instructions will be developed in accordance with (iaw) the RA 5000 Series (Type Airworthiness Engineering) Regulations. If Modifications and Repairs are not conducted according to these instructions the Airworthiness of the Air System will be compromised. Additionally, the operational situation may require deferral of a Modification or Repair which could compromise Airworthiness if not correctly managed. Oversight by the Military Continuing Airworthiness Management Organization (Mil CAMO) is critical to ensure Air Systems remain airworthy after undergoing Modifications or Repairs or when deferral of these activities is required.*

### Contents

#### 4963(1): Modifications and Repairs

### Regulation 4963(1)

#### Modifications and Repairs

4963(1) The Military Continuing Airworthiness Manager (Mil CAM) **shall** ensure all Modifications and Repairs on Air Systems identified in their Continuing Airworthiness Management Exposition (CAME) are correctly embodied in compliance with the instructions issued by the Type Airworthiness Authority<sup>1</sup> (TAA).

### Acceptable Means of Compliance 4963(1)

#### Modifications and Repairs

1. The Mil CAM **should** maintain oversight of individual Air System Airworthiness and trends across all similar Air Systems identified in their CAME. The Mil CAM **should** coordinate the scheduling of Modifications and Repairs and manage their approvals where suitable data is not available. This **should** be achieved by:

- a. All requests for Approved Data / Repair schemes being made to the TAA through the Mil CAMO.
- b. Performing the function of fleet manager / controller.
- c. Consulting with the Maintenance organizations conducting Modifications and Repairs to determine priorities.
- d. Deciding where Modifications and Repairs are carried out and managing the tasking and transfer process where appropriate.
- e. Managing all Cannibalizations.
- f. Authorizing Cannibalizations from Category 3<sup>2</sup> and 4<sup>3</sup> Air Systems undergoing Repair.

#### Modifications

2. For all planned Airworthiness and non-Airworthiness Modifications the Mil CAM **should**:
  - a. Assess the impact of the Modification.

<sup>1</sup> Where the Air System is not UK MOD-owned, Type Airworthiness (TAw) management regulatory responsibility by either the TAA or Type Airworthiness Manager (TAM) needs to be agreed within the Sponsor's approved model; refer to RA 1162 – Air Safety Governance Arrangements for Civilian Operated (Development) and (In-Service) Air Systems, or refer to RA 1163 – Air Safety Governance Arrangements for Special Case Flying Air Systems. Dependent on the agreed delegation of TAw responsibilities TAM may be read in place of TAA as appropriate throughout this RA.

<sup>2</sup> The Air System is repairable, but the work is considered beyond the Air System custodian's Maintenance organization's capability. The repair **should** be carried out on site or by a Depth Maintenance organization.

<sup>3</sup> The Air System is repairable, but it is considered to need special facilities or equipment not available on site. The repair **should** be carried out by a specialist Repair Organization at an MOD facility or a contractor's works.

**Acceptable  
Means of  
Compliance  
4963(1)**

- b. Consider the implications of the Modification for the Delivery Duty Holder (DDH) / Accountable Manager (Military Flying) (AM(MF)), including the impact of non-Airworthiness Modifications and the scheduling of embodiment where applicable<sup>4</sup>.
  - c. Develop an implementation strategy in consultation with the TAA and the Maintenance organization embodying the Modification.
3. The Mil CAM **should** schedule Modifications and then manage Modification embodiment in support of the TAA's Regulatory requirements<sup>5</sup>:
- a. For Modifications with an Airworthiness impact, the Mil CAM **should** ensure that the embodiment is completed within the TAA's recommended timescales for the platform.
  - b. The Mil CAM **should** monitor progress throughout the embodiment process.
  - c. The Mil CAM **should** ensure configuration control of the Modification and that the overall Modification state and Airworthiness condition of the Air System is documented.
  - d. Maintain oversight of the assembly, storage and issue of Modification kits.

**Repairs**

4. The Mil CAM **should**:
- a. Ensure all known and suspected Faults are assessed to confirm if they require a Repair.
  - b. Report Serious Faults to the TAA<sup>6, 7</sup>.
  - c. Schedule the Repair and then manage its embodiment in conjunction with the organization conducting the Repair.
  - d. Request an appropriate Repair scheme or Concession for damage outside Approved Data from the TAA or appropriately approved Design Organization.
  - e. Monitor the use of Repair schemes and Concessions and report issues to the DDH / AM(MF) and inform the TAA of any additional requirements.
5. The Mil CAM **should** ensure all Repair deferrals and limitations are assessed by a suitably Competent individual and are correctly recorded. The procedure for managing this **should** be detailed in the CAME.

**Guidance  
Material  
4963(1)**

**Modifications and Repairs**

6. The Mil CAMO is not responsible for identifying the requirement for capability Modifications.
7. There are a number of reasons for modifying an Air System, including Airworthiness, reliability, efficiency, survivability and capability.
8. The Mil CAMO may need to consider issues associated with embodiment of Modifications and Repairs, taking into account DDH / AM(MF) fleet capability / availability requirements to meet operational and training commitments.
9. For Air Systems not operating in the Service Environment<sup>8</sup> it is accepted that the TAA may not publish all Air System Maintenance requirements and TI. In such circumstances the Sponsor of the Air System conducts Assurance to confirm that appropriate Air Safety arrangements are in place<sup>8</sup> and where necessary the TAA ensure that the operator receives all relevant TI<sup>8</sup>.

<sup>4</sup> The Mil CAM **should** support the TAA as described in RA 5305 – In service Design Changes.

<sup>5</sup> Refer to RA 5301 – 5320 Series – Control of Design and Design Records, for further details.

<sup>6</sup> Refer to RA 5825 – Fault Reporting and Investigation.

<sup>7</sup> In addition to the general reporting requirements in RA 1410 – Occurrence Reporting and Management.

<sup>8</sup> Refer to RA 1163 – Air Safety Governance Arrangements for Special Case Flying Air Systems.