|  |  |
| --- | --- |
| **CAAi Job Ref:** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Organization:** |  | **Organization Ref:** | **UK.MAA.DAOS.** |
| **Address:** |  |
|  |
|  |
| **Site Visited:** |  |
| **Contact Name:** |  | **Tel No:** |  |
| **Audit Team Leader** |  |
| **Audit Team Member:** |  |
| **Support Specialists:** |  |  |  |
| **Exposition Title:** |  | **Exposition Ref and Issue:** |  |

|  |  |  |
| --- | --- | --- |
| **Compiled By:** | **Signed:** | **Date:** |

**Additional Information:**

Auditor Notes:

1. Once completed the checklist is to be passed to the Audit Team Lead (TL) to assist in preparation of the Audit Report. Checklists will be held on file until the next visit to assist in reviewing evidence gathered during the visit and to resolve any queries. The Checklist is considered an aide-memoire/working document and does not constitute an official record.
2. Prior to raising a CAR against a specific requirement of the MRP/Defence Standards, care should be exercised to ensure no derogation to the standard has been agreed in writing by a Delivery Team (DT) Leader. If this is the case a CAR should not be raised but the details (to include MAA AAMC, Waiver or Exemption reference or Contract Reference and Delivery Team) recorded in the Audit Report for consideration by the MAA if any further action is required.

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart J - Exposition** |  |  |  |  |
| Has a Design Organization Exposition (DOE) been submitted to address the requirements of RA5850?Has the DOE been validated to ensure that it addresses the requirements of RA5850 and the supporting information in the MAA DAOS Exposition Template?Does the DOE reference the basic working documents of the organization?Does the DOE identify what design activity is undertaken on-site and what is subcontracted?Are major subcontractors essential to the scope of activity identified within the DOE or by reference to a separate document? Does the facility list include equipment/rigs for type approval and qualification testing and whether these are in-house or contracted?Is it stated that the DO determines all designs/repairs/changes comply with applicable airworthiness requirements and have no feature that may lead to an unsafe condition?Does the DOE specify that statements will be provided to the Type Airwothiness Authority (TAA) or Commodity Chief Engineer (CE) confirming compliance (except where approved under privilege)?Does the DOE specify how information required under RAs 5805 (MRP 21 SubpartA), 5810, 5850, is provided to the TAA or Commodity CE? | RA 5850 (1)  |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Maintenance of DAOS Approval** |  |  |  |  |
| Since the last DAOS Assessment, has the Organization maintained a documented Quality Management System in accordance with the requirements of AS/EN9100 or ISO 9001?*Obtain copies of Certificates. Is the Certification Body UKAS accredited?* | RA 5850 (2) |  |  |  |
| Has the organization ensured that application for changes to Terms of Approval have been made via provision of MOD Form 82 to the MAA? | RA 5850 (2) |  |  |  |
| Has the organization ensured that changes significant to the showing of compliance are identified and application for approval made via provision of MOD Form 82 to the MAA: * Organization,
* Responsibilities,
* Procedures,
* Resources.
 | RA 5850 (6) |  |  |  |
| Is the DOE maintained as an accurate reflection of the organization? | RA 5850 (4) |  |  |  |
| If the organization holds Civil Part 21 DOA, has the EASA or CAA Handbook and the supplementary Exposition addressing the RA 5850 deltas been maintained? | RA 5850 (4)  |  |  |  |
| Does the DO make the necessary arrangements to allow investigations and inspections, including at partners, suppliers and subcontractors? | RA 5850 (7) |  |  |  |
| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| **DO/CDO Responsibilities** |  |  |  |  |
| Has the Organization been defined as a DO or Co-ordinating Design Organization (CDO) in the contract? | RA 5850 (1) RA 1014 (1) |  |  |  |
| Has the Organization established procedures to fulfil the responsibilities of RA1014 for DOs in support of the TAA or Commoditiy CE, specifically: -1. Demonstrating that the design is complys with contract specification and that independent airworthiness scrutiny of the design has been undertaken?
2. Preparation and custody of specifications, drawings and instructions for maintaining the design and other supporting data?
3. Preparation of information for the Air System Document Set (ADS), including Release to Service Recommendations and Aircrew Publications and Technical Information?
4. Arrangements to report failures, malfunctions and defects that may result in an unsafe condition?
5. Investigation of design occurrences and recovery action?
6. Preparation of modifications and repairs. Is the organization seeking privileges for classification and approval for design changes/repairs?
7. Contributing to the equipment element of the safety assessment in support of TAA or Commodity CE?
8. Ensuring that a competent sub-contracted organization is consulted where DAOS scope does not cover a specific system?
9. Providing sub-system/interface data for those aspects designed by another DO?
 | RA 1014 (1)RA 1014 (1) |  |  |  |
| Where the DO has been appointed as CDO, has it established procedures for these additional responsibilities (i.e. co-ordinating the interfaces between other participating DOs)? | RA 1014 (1) |  |  |  |
| Where the DO has been appointed as overall Air Systems CDO, has it established procedures to fulfil these additional responsibilities, specifically:* Through-life configuration management of the Air System?
* Support to the TAA in Structural, Propulsion and Systems Integrity Working Groups, lifing reviews and triennial review of Statement of Operating Intent and Usage?
 | RA 1014 (2) RA5700 Series |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Interface with TAA** |  |  |  |  |
| Where contracted, has the Organization established procedures to support the TAA with the following specific responsibilities:1. Airworthiness Management during development.
2. Compilation of certification evidence to support Type Certification / Release To Service (RTS).
3. Completeness/accuracy of Approved data, including the ADS.
4. Development of an Air Safety Management System (ASMS) (See RA 1200 below).
5. Response to Airworthiness Issues, including issue of Technical Instructions.
6. Collection, investigation and analysis of reports of failures, malfunction & defects.
7. Advising Type DOs, operators and MAA of outcomes of investigations.
8. RA 5700 Series Structural, Propulsion and Systems Integrity Working Groups, review of in-service experience against design assumptions.
9. Co-ordination between design and production.
10. Retention/access of all design data.
11. Update and changes to ADS.
 | RA 1015 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Air Safety Management System** |  |  |  |  |
| Has the Organization established an auditable ASMS in accordance with RA 1200? | RA 1200 (1) |  |  |  |
| Does the ASMS address:1. Safety Policy and Objectives,
2. Safety Risk Management,
3. Safety Assurance,
4. Safety Promotion.
 | RA 1200 (1) |  |  |  |
| Is the DO aware of the Manual of Air Safety? | RA 1200 (1) |  |  |  |
| Has the DO established it’s Project Safety Management Plan (SMP) in co-ordination with the TAA or Commodity CE covering it’s activities? | RA 1220 (2) |  |  |  |
| Is the DO Project SMP integrated into and co-ordinated with the TAA or Commodity CE Project SMP? | RA 1220 (2) |  |  |  |
| Is the DO aware of the agreed Design Safety Targets as flowed down from the Delivery Team? | RA 1230 (1) |  |  |  |
| Does the DO understand and embed in written procedures the need to ensure that all risks are identified to the Air System Safety Case owner, to allow the duty holder to reasonably determine that Risks to Life associated with an Air System are reduced to levels at least Tolerable and As Low As Reasonably Practical (ALARP)? | RA 1205 (1) |  |  |  |
| **Air Safety Management System** |  |  |  |  |
| Does the ASMS specifically ensure that any decision, activity or change in circumstances with the potential to introduce new or increased Risk to Life or which changes previous determination of risks identified as Tolerable and ALARP are identified and reported? | RA 1200 |  |  |  |
| Does the Organization use the standardised approach to Risk (Risk Register, Hazard Risk Matrix and Referral/Escalation processes), if not, what alternate means have been agreed with the TAA or Commodity CE? | Def Stan 00-056 |  |  |  |
| Has the TAA or Commodity CE specified compliance with Def Stan 00-056 as part of the contracted requirements, if not, what other safety management requirements have been agreed with the TAA or Commodity CE and specified in the Project SMP. | Def Stan 00-056 Part 1 |  |  |  |
| Where Def Stan 00-056 has been specified, has the Organization provided a compliance matrix demonstrating which procedures are established to meet the specification requirements?Is there evidence that a tailored approach has been used consistent with the Air System minimum requirements (Appendix 2 to Annex B) | Def Stan 00-056 Part 2 |  |  |  |
| **Air Safety Management System** |  |  |  |  |
| Where there is no other Safety Committee, has the Organization worked with the MOD to establish a Safety Committee to include relevant stakeholders. | Def Stan 00-056 Part 1  |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Def Stan 00-056** |  |  |  |  |
| Has the Organization defined its approach to managing safety-related activity and documented via a Project SMP?Has the Organization implemented a Hazard Log and managed it as part of the SMS? Is the Hazard Log updated through the life of the contract to ensure that it accurately reflects risk management activities?Where a hazard is identified that is outside the scope of the Contractor’s control, has this been recorded as such in the Hazard Log and notification to the Duty Holder?*Note: Any such hazard shall only be closed when the Duty Holder, or the owner of the hazard, confirms that the risk has been reduced to a level that is ALARP and broadly acceptable or tolerable.* Where another party notifies the Contractor of a relevant credible hazard, is this incorporated into the Hazard Log? | Def Stan 00-056 Part 1 |  |  |  |
| Are all credible hazards and accidents identified, associated accident sequences defined, and risks associated with them systematically determined?Is the Hazard Identification and Hazard Analysis reviewed and revised (with the agreement of the Duty Holder) through the life of the contract as the system changes or as relevant information becomes available that has a bearing on safety? | Def Stan 00-056 Part 1 |  |  |  |
| Are all identified safety risks reduced to levels that are ALARP and broadly acceptable or, when this is not possible, tolerable and ALARP, unless legislation, regulations or MOD Policy imposes a more stringent standard. | Def Stan 00-056 Part 1 |  |  |  |
| Where a risk is assessed not to be broadly acceptable and ALARP or tolerable and ALARP as defined by the Tolerability Criteria, are risks reduced by identifying and implementing mitigation strategies until the Tolerability Criteria are met, enabling Risk Acceptance to take place.If, after a risk has been reduced to a level that is ALARP, it is still unacceptable, has the Organization notified the Duty Holder. | Def Stan 00-056 Part 1 |  |  |  |
| Are interfaces between Safety Management Systems, Safety Cases, systems and organizations identified and effectively managed.Are any dependencies on other organizations recorded in the Safety Case/Safety Assessment | Def Stan 00-056 Part 1 |  |  |  |
| Where work is to be sub-contracted, has the Organization put measures in place to ensure that the requirements of Def Stan 00-056 continue to be met. | Def Stan 00-056 Part 1 |  |  |  |
| Are changes to the operational, technological, legislative and regulatory environment and any other changes that may have an impact on safety monitored and managed. | Def Stan 00-056 Part 1 |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Design Management System** |  |  |  |  |
| Has the organization established and maintained a Design Management System for the control and supervision of the design and any changes? | RA 5850 (3) |  |  |  |
| Does the Design Management System address:1. Ensuring that the design, change or repair complies with applicable requirements and that extent of compliance is established via Inspection, Demonstration, Analysis and Test?
2. Ensuring compliance with applicable RA 5000 and RA 5800 series provisions?
3. Generation of Certificates of Design?
4. Compliance with Defence Air Safety Management?
5. Configuration Management?
 | RA 5850 (3)RA 5000RA 5800RA 5103 (1)RA 1200RA 5301(1) |  |  |  |
| Has the Organization established processes and procedures for the Configuration Management requirements of Def Stan 05-057 where contracted – Configuration Management Plan (CMP), support for Local Technical Committee/Configuration Control Booard meetings, preparation of Draft Modification Leaflets (ML) etc. | Def Stan 05-057RA 5305 |  |  |  |
| Are there arrangements for independent monitoring of compliance and adequacy of the procedures of the Design Management System.  | RA 5850 (3) |  |  |  |
| Does this include feedback to persons with responsibility to ensure corrective action. | RA 5850 (3) |  |  |  |
| Does the Design Management System address:1. Regular design reviews to validate design proposals?
2. Independent checking function of showings of compliance forming the basis of Certificate of Design (CofD) or other documentation submission to the TAA or Commodity CE?
3. How acceptability of designs or tasks provided by partners or subcontractors is specified and documented?
4. Where a Sub-Contractor is not a Design Approved organization under RA 5850, does the contracting DO either:
* Incorporate the design of the sub-contracted items into its own drawings (other than standard parts)?
* Ensure that the sub-contractor follows the relevant procedures of RA 5800?
* How is this ensured?
* How is it determined that the sub-contractor has the necessary competence and capacity to undertake the specified design work?
* Is the design function involved in the assessment process?
 | RA 5850 (3) |  |  |  |
| 1. How system monitoring is carried out if the DO is part of a larger organization and this is undertaken as part of the existing Quality Assurance system.
 | RA 5850 (3) |  |  |  |
| 1. How the independent checking function is undertaken by Compliance Verification Engineers (CVEs) as detailed in RA 5850 Annex A.
 |  |  |  |
| Are the structure, responsibilities, procedures and resources available to ensure proper functions of the DO.Are planned and systematic actions established to provide confidence that the organization can:1. Design Products, Parts & Appliances (PP&A) in accordance with applicable Certification Specifications (CS)?
2. Show and verify compliance with those CS?
3. Demonstrate compliance to MAA for DAOS and to TAA or Commodity CE?
4. Undertaking continuing evaluation of factors that affect the adequacy of design?
5. Demonstrate that the design complies, and will continue to comply after any change?
6. How the planned and systematic actions are defined and implemented?
7. How actions are regularly evaluated, and corrective actions defined as necessary?
 | RA 5850  |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Independent Checking System** |  |  |  |  |
| Does the Design Managment System ensure: 1. That independent checking and verification is undertaken by persons not creating the compliance data (*can work in conjunction with individuals but may not ‘mark own homework’*).
2. That there is sufficient CVE coverage for the scope of approval?
3. There is a procedure addressing non-availability of nominated persons and their replacement where necessary?
 | RA 5850 (3)MAA/RN/2020/17 |  |  |  |
| Does the Independent Checking Function ensure:1. Conformity of materials and processes to specification?
2. Conformity of parts to drawings?
3. Conformity of manufacturing processes, construction and assembly?
4. Test and measuring equipment is adequate and calibrated?
 | RA 5850 (3) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Compliance Verification** |  |  |  |  |
| Has the DO: -* Nominated staff as CVEs responsible for approving compliance documents?
* Established procedures for selection, training and establishing competency of CVEs?
* Nominated CVEs in accordance with specific disciplines (structures, avionics, flight dynamics etc)?
* Established procedures for verification (*by signing*) of all compliance documents (including test programmes and data) needed to demonstrate compliance to the design requirements?
 | RA 5850 (5) |  |  |  |
| **Chief Exec/Head of Design Organization** |  |  |  |  |
| Has the DO established processes and procedures to ensure: * That the Chief Executive (may be Head of DO) provides necessary resources?
* That the Head of Design (HDO) signs the CofD?
* That the signature confirms that the procedures as specified in the DOE have been followed?
* How is this confirmed to the Chief Exectutive/HDO (see Office of Airworthiness below)?
 | RA 5850 (5)RA 5103 |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Office of Airworthiness Function** |  |  |  |  |
| Has the DO established processes and procedures for the following Office of Airworthiness responsibilities:* Liaison with TAA or Commodity CE on Design Investigation?
* Update of DOE?
* Co-operation with MAA in developing Certification Procedures?
* Issue of guidance for demonstrating compliance?
* Issue procedures for preparation of manuals?
* Procurement of Standards?
* Liaison with TAA or Commodity CE to propose cert basis?
* Interpreting CS, requesting TAA or Commodity CE decision?
* Communication to all Design Departments?
* Preparation of Design Investigation Programme?
* Regular reporting to TAA or Commodity CE – test dates etc?
* Preparation of Test Programmes?
* Preparation of Certification Compliance Checklist?
* Checking all compliance documents are prepared, complete and signed for release?
* Checking the required type design definition documents in RA 5810; ensuring that they are provided to TAA or Commodity CE for approval as required?
* Preparing a draft Type Certificate Data Sheet (TCDS) and/or modification if necessary?
* Verifying to HDO that all activities for CofD have been properly completed?
* Monitoring significant events on other aeronautical products?
* Ensuring co-operation in preparing SBs & MLs (with special attention given to the manner in which the contents affect CS for subsequent approval by the TAA or Commodity CE)?
* Initiating actions in response to failures and providing information to the TAA OR Commodity CE in case of airworthiness impairment?
* Advise TAA OR Commodity CE on Airworthiness Directives based on Service Bulletins?
* Ensure that manuals to be approved by the TAA or Commodity CE are checked for compliance prior to submitting to the TAA or Commodity CE for approval?
* Approving classification of changes and approving minor changes (where DO Privilege allows)?
 | RA 5850Annex A RA 5820 (1) |  |  |  |
|  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| Privileges |  |  |  |  |
| Has the TAA or Commodity CE invoked (or advised intent to invoke) privileges from the DO?If so, has the DO established procedures and nominated personnel for the following as required:* Classification of changes to Type Design and Repairs as Major or Minor?
* Approval of Minor Changes and Minor Repairs?
* Issue of information or instructions with the technical content approval statement?
* Approval of Flight Conditions?
* Issue of a Military Permit to Fly (MPTF) for an Air System it has designed or modified?
 | RA 5850 (11) |  |  |  |
| Has the DO developed its internal procedures for privileges using Annex C:* Identification?
* Classification of Changes/Repairs
	+ Justification.
	+ Authorised Signatories.
	+ Subcontractors.
* Approval of Changes/Repairs
	+ Compliance Documentation.
	+ Approval under privilege.
	+ Authorised Signatories.
	+ Subcontractor
 |  |  |  |
| How does the DO assure the TAA that any changes approved under privilege are done so accurately  | RA 5850 Annex C |  |  |  |
| How does the DO assure the TAA that there is a robust mechanism for configuration control for any changes under privilege |  |  |  |
| In the case of preparation of technical data, has the DO documented a process for design, production and inspection to support this privilege.  |  |  |  |
| Where applicable, has the DO developed its internal procedures for privileges relating to Flight Conditions using Annex C:* Decision to Use.
* Configuration Management.
* Conditions for Safe Flight.
* Documentation of Substantiations.
* Approval under privilege.
* Flights needing TAA approval.
* Authorised Signatories.
* Subcontractors.
* RTS Deviations.
* Calculations and Analyses.
* Maintenance Instructions.
* Independent Technical Verification.
* No Unsafe Feature statement by Office of Airworthiness.
 |  |  |  |
| Where applicable, has the DO developed its internal procedures for privileges relating to Issue of MPTF:* Process.
* Authorised Signatories.
* Interface with TAA for the flight.
 | RA 5850 Annex C |  |  |  |

| **Government Furnished Equipment (GFE)** |  |  |  |  |
| --- | --- | --- | --- | --- |
| Does the DO obtain MOD authority prior to altering the design of MOD sponsored GFE?Does the DO advise the MOD at the earliest opportunity if it has any doubt regarding the GFE design’s suitability or proposals for change?Can the DO demonstrate that the design of installations using GFE is in accordance with the specific installation, functional and interface definitions (collectively may be referred to as Interface Control Documentation or ICD)? | RA 5850 (12) |  |  |  |
| **Record Keeping** |  |  |  |  |
| Does the DO ensure that it holds all relevant design information, drawings and tests including inspection records?Is information necessary to ensure type airworthiness retained for a minimum of 5 years beyond Out of Service Date (OSD)?Is appropriate co-ordination in place for international programmes? | RA 5850 (13)RA 5810 (18) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Instructions for Sustaining Type Airworthiness (ISTA)** |  |  |  |  |
| Does the DO provide complete ISTA (content in AMC) including descriptive data and accomplishment instructions to the TAA.Has the DO provided a programme to the TAA showing how changes will be distributed.Note: - ISTA availability can be delayed beyond service entry but needs to be provided before PP&A reach age/hours/cycles.  | RA 5850 (3)RA 5815 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart A – Failures, Malfunctions and Defects** |  |  |  |  |
| Has the DO established a system for collecting, investigating and analysing reports of failures, malfunctions and defects or other occurrences of which it is aware which might cause an unsafe condition?How are these reports made available to the TAA or Commodity CE? | RA 5850 (8)RA 5825 (1) |  |  |  |
| **MRP 21 Subpart A – Co-ordination between Design and Production** |  |  |  |  |
| Has the TAA or Commodity CE ensured collaboration between the DO and PO?Is the collaboration agreed by TAA or Commodity CE?Has the minimum information to be transferred been provided? | RA 5835 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart B – Military Type Certificate** |  |  |  |  |
| Has the DO established a system to support certification in the Service Environment to the current MRP RAs prior to RTS?Has the DO established a Certification Approach with the TAA in accordance with the Military Air Systems Certification Process (MACP)?(Note: for RPAS see RA1600)Has the DO, in co-ordination with the TAA: -Maintained or applied for Organization Approval?Established and agreed theType Certification (TC) Basis?Agreed the Certification Programme?Demonstrated compliance to the TC Basis?Provided Certification Evidence for MAA review?Provided support for Post-Certification Activity?Is it ensured that the system is brought Under Ministry Control (UMC) per RA 5301 and Def Stan 05-057 prior to issue of the MTC? | RA 5810 (1) |  |  |  |
| Has the DO established procedures to ensure the CS to which compliance is to be demonstrated is selected in accordance with Annex A Phase 2 - (Def Stan 00-970 as default)? | RA 5810 (6) |  |  |  |
| Has the DO established procedures for documentation of Special Conditions for agreement by the MAA? | RA 5810 (6) |  |  |  |
| For civil-derived aircraft, is there evidence that the Certification Programme has considered military differences (such as equipment with no civil certification requirements or where the usage spectrum differs from civil assumptions)? | RA 5810 (3) |  |  |  |
| Has the DO established procedures for proposal of the Type Certification Basis in accordance with Annex A Phase 2 for agreement by the TAA? | RA 5810 (6) |  |  |  |
| Has the DO established procedures for proposal of the Certification Programme in accordance with Annex A Phase 3 for agreement by the TAA? | RA 5810 (7) |  |  |  |
| Do the procedures for Design Change (RA 5820) ensure that where a proposed change is so extensive that a substantially complete investigation is required, then the need for application for a new MTC will be advised to the TAA? | RA 5810 (8) |  |  |  |
| Has the DO established procedures to support the TAA with the demonstration of compliance to the TCB and identification of Means of Compliance in accordance with Annex A Phase 4? | RA 5810 (9) |  |  |  |
| Has the DO established procedures to support the TAA with contractual arrangements and access to design information, including that configuration has been managed in accordance with RA 5301 and moved to UMC under Def Stan 05-57 to allow the issue of the MTC in accordance with Annex A Phase 5? | RA 5810 (10) |  |  |  |
| Where the evidence is insufficient to support an unrestricted MTC, has the DO established procedures to support the TAA with adequate evidence, including how configuration changes are managed while Uunder Contractor Control to not increase risk? | RA 5810 (11) |  |  |  |
| **MRP 21 Subpart B – Type Design** |  |  |  |  |
| Has the DO ensured the Type Design is defined by drawings, specifications, manufacturing processes and airworthiness limitations to support the TAA? | RA 5810 (12) |  |  |  |
| Does the Type Design define the:* Drawings and Specifications (and a listing of them) needed to define configuration.
* Information on materials and processes and on methods of manufacture.
* Approved Airworthiness Limitations section of the ISTA.
* Any other data needed to show by comparison, determination of airworthiness of later configurations of the same type?
 | RA 5810 (12) |  |  |  |
| **MRP 21 Subpart B – Investigations and Tests** |  |  |  |  |
| Has the DO ensured TAA or Commodity CE right of access to any report, test or to witness any test needed to demostrate compliance with the TCB?Does the DO have procedures to define and agree the required testing with the TAA and the Test Organization and the level of involvementin reviewing reports or overseeing activity? | RA 5810 (13) |  |  |  |
| **MRP 21 Subpart B – Flight Tests** |  |  |  |  |
| Does the DO have procedures to define and ensure that the flight testing necessary to support the MTC or RMTC is undertaken under conditions agreed by TAA and conducted iaw RA 5880?Are arrangements in place to support the TAA in ensuring that the required tests to show compliance to MTC or RMTC used for civil certification also satisfy the intended MOD usage? | RA 5810 (14) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart D – Changes in Type Design** |  |  |  |  |
| Has the DO established a system for classification and (if privileged) approval of changes?For DO under minor privilege, does the procedure specify that reasons for the classification decision are recorded on MAA Form 30 and presented to the TAA for configuration control?Does the classification procedure reference the criteria for ‘appreciable effect’:* Adjustment of TC basis?
* New Interpretation?
* New methods of compliance?
* Extent of new and substantiation data?
* Effect on Airworthiness or Operating Limitations?
* Effect on functions where failure effect is classified as catastrophic or critical?
* Mark number change or suffix?
* Multiple systems/areas (Mid Life Upgrade etc)?
* Effect on All Up Weight, manoeuvre limits or life?
* Modification to weapon release/firing?
* Change affecting software criticality/levels?
* Cumulative effect?
* MAA Certification Assurance?
 | RA 5820 (1) |  |  |  |
| Minor Changes:Has the DO established a procedure to approve Minor Changes under privilege and has this procedure been agreed with MAA?How is the TAA advised to maintain configuration control?Have arrangements been made to ensure TAA access so that they can confirm the thoroughness of the evaluation process (in line with the MACP) for minor changes not assured by the MAA?Are minor changes only approved when it has been determined that a thorough evaluation process in line with the MACP has been completed? | RA 5820 (3)RA 5850 (11)RA 5820 (3) |  |  |  |
| Major Changes:Where the TAA has contracted a DO to provide substantiating/descriptive data in support of a Major Change, has the DO established procedures to ensure:* Demonstration that the major change complies with MACP and appropriate CS (Changed Product Rule)?
* TAA access so that they can confirm the thoroughness of the evaluation process (in line with the MACP) for major changes not assured by the MAA?
 | RA 5820 (4)RA 5820 (5) |  |  |  |
| **MRP 21 Subpart D – Changed Product Rule** |  |  |  |  |
| Designation of Applicable CS for AirworthinessHas the DO established a procedure to support the TAA with the determination that the change complies with applicable CS for airworthiness?Does the procedure comply with the process contained in Fig. 3 and the definition of ‘Significant’ in the GM material when determining whether an earlier certification standard can be applied including consideration of Special Conditions? | RA 5820 (5) |  |  |  |
| **MRP 21 Subpart D – Major Change Approval** |  |  |  |  |
| Has the DO established a procedure to ensure that information supporting the TAA with the substantiation of a major change ensures that:* The changed product meets applicable CS for airworthiness?
* Provisions not complied with, are compensated by factors providing equivalent levels of safety?
* There is no feature or characteristic that makes the product unsafe for the intended use?
* That the configuration management processes necessary to ensure the design is UMC have been completed?
 | RA 5820 (6)RA 5301 SeriesDef Stan 05-057 |  |  |  |
| **MRP 21 Subpart D – Record Keeping** |  |  |  |  |
| Has the DO established procedures to ensure TAA access to data needed for type airworthiness for a period of 5 years beyond OSD of the Air System? | RA 5810 (16) |  |  |  |
| **MRP 21 Subpart D – Instructions for Sustaining Type Airworthiness (ISTA)** |  |  |  |  |
| In the case of civil-derived MRCOA aircraft, is it ensured that ISTA relevant to all applicable Supplementary Type Certificates are up to date and provided to the applicable Mil CAM?Does the DO have procedures to support the TAA in ensuring that they are aware of any configuration changes and should approval them before application to the aircraft? | RA 5815 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart G – Production** |  |  |  |  |
| Has the DO established formal arrangements with the production organization(s) describing how to reliably use the applicable design data to manufacture the PP&A? | RA 5835 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart K – Parts and Appliances** |  |  |  |  |
| Does the DO adequately identify those parts included in the Type Design that are:* Within its own Type Certification processes under RA 5810/RA 5820?
* Supported by an external CofD under RA 5103?
* (E)TSO under RA 5875?
* Standard Parts?

Are Standard Parts supported by official standards published by a recognised body and specified by the DO for that equipment? | RA 5855 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart O – (E)TSO** |  |  |  |  |
| Where the DO includes (E)TSO items as part of a design, does it have procedures to ensure that the installation complies with the technical conditions under which the (E)TSO article was approved?Does the DO procedure ensure:* The (E)TSO Approval Certificate and supporting DDP are available to the TAA?
* That a Safety Assessment for the installation is produced where the conditions of use exceed the conditions under which the (E)TSO article was approved?
* That the functions of the article beyond that of the (E)TSO specification have also been assessed?
* That the effect on the aircraft TC basis is assessed in case of repair or replacement of (E)TSO articles and advised to the TAA?
 | RA 5875 (1)RA 1220 (3) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart Q – Part Marking** |  |  |  |  |
| Has the DO specified appropriate:* Part Marking (Name, Product Designation and if applicable Batch/Serial Numbering) for parts it has designed?
* Are the locations and established marking techniques are specified (non-critical surfaces for propellers, blades and hubs) and only changed by the DO or TAA or Commodity CE?
* Do the instructions call for each Part or Appliance to be marked, where marking is impractical due to size, does the release documentation or it’s container include the information?
* Are there specific additional requirements for Critical Parts?
* Does the DO have procedures to ensure that a list of all Identifiable Parts is included in the Design Records?
* Is this list agreed with TAA or Commodity CE and kept under review in case of service experience and changes to design?
* Does this list include Critical Parts and parts likely to affect airworthiness or operational effectiveness in case of a fault – Grade A Parts per Def Stan 00-970 Part 1 Section 2 and Part 7 Section 2?
 | RA 5885 (1)RA 5885 (3)RA 5885(4) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **Certification of Design** |  |  |  |  |
| GeneralDoes the proposed format of the CofD meet the requirements of RA 5103?Is a CofD issued to certify the extent to which the design satisfies the specification requirements issued by or on behalf of MOD?Is a CofD submitted to the Delivery Team Leader when compliance with the requirements of the specification have been demonstrably satisfied?Has documentation been provided (using the appropriate Appendices) identifying certification and required supporting documents?Are all CofDs signed by personnel listed on the DAOS Certificate of Approval? | RA 5103 (1)  |  |  |  |
| Requirements |  |  |  |  |
| Does the CofD contain:a. Unique reference number. b. Item description. c. Organization name. d. Design Approved Organization Scheme (DAOS) approval reference number. e. Applicable certification basis. f. Identification and brief description of the change or repair and the reason for the change or repair if applicable.:g. Applicable Certification requirements and methods of compliance. h. Change / repair classification. i. Compliance documents and independent checking function. j. Any exceptions or limitations. k. Structural Integrity artefacts in support of the integrity baseline if applicable. l. Configuration Status Record or equivalent. m. ALW Structural Design Record (if applicable). n. A Safety Assessment iaw Def Stan 00-056 to demonstrate that the design is tolerably safe for the intended purpose. o. A statement that the change or repair has been approved under privilege12 (if applicable). p. Date of approval. q. Approved DO design signature. r. HDO or their authorized representative signature (only required if not approved under privilege). This statement confirms that the applicable DO procedures as specified in the DOE have been followed.s. TAA /Commodity CE acceptance signature. | RA 5103 (2) |  |  |  |

***END OF CORE REQUIREMENTS***

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart M – Repairs** |  |  |  |  |
| **Demonstration of Capability** |  |  |  |  |
| Where contracted to provide support for repairs outside the extant ADS or to support TAA application for Major Repairs, does the DO hold an appropriate scope of DAOS approval? | RA 5865 (1) |  | Note: This question is not applicable to applicants seeking an initial DAOS approval with repair scope |  |
| **Repair DOApproval** |  |  |  |  |
| Has the TAA or Commodity CE determined the Repair DO to be a competent organization?Has the TAA or Commodity CE or Repair DO enabled direct interface between Repair DO and DO for the availability of design data and provision of advice?Are Repair DO schemes identified to distinguish from DO schemes?Does the Repair DO have appropriate design data and staff? | RA 5865 (2) |  |  |  |
| **Repair DO Repairs** |  |  |  |  |
| Do procedures exist to ensure that Repair DO repairs: -* Respect extant design limits, and:
* that TAA is notified where RTS limitation may be necessary?
* Respect limitations from Air System DO or Air System DT where structure (or for equipment and systems, structure, aerodynamics, weight, Centre of Gravity (CofG) and systems (including software)) are affected?
* Do not transgress such limitations without written technical agreement of the Air System DO?
 | RA 5865 (4) |  |  |  |
| Do procedures exist to ensure that: -* All Repair DO repairs affected by the above are passed to DO for provision of advice whether proposed repair transgresses limitations?
* Where the Air System DO advises limits will be transgressed, that the Repair DO seeks written approval from the TAA?
* For aircraft repairs, the Repair DO consults the DO where there is ‘no valid precedent, principle, DO Repair Instruction or sufficient evidence to prove restoration with TCB’?
* The list of repair schemes and changes to Air System build standard is forwarded to Air System DT for configuration management and maintenance of DO design records?
* There is consideration where application is sufficiently wide to be included in the ISTA?
* Are any changes to Mass/CofG from the repair installation advised to the TAA for recording in the ADS?
* .
 | RA 5865 (4) |  |  |  |
| **DO Repairs** |  |  |  |  |
| Has the DO established procedures for where repair design activity (not contained in ISTA) is received from the TAA or Commodity CE?Does this procedure arrange for a master list of DO approved repair schemes that have not been included in the ISTA to be retained as part of the Design Records? | RA 5865 (4) |  |  |  |
| **Substantiation Data** |  |  |  |  |
| Does the repair identify:* Damage identification and reporting source?
* Major Repair Design Approval Sheet showing applicable requirements and justification references?
* Drawings/instructions and scheme identifier?
* Correspondence with TAA, DO or (E)TSO Approval Holder?
* Structural justification (static strength, fatigue, damage tolerance, flutter etc) or references to such data?
* Effect on aircraft/engine/systems: performance, handling etc?
* Effect on Maintenance Programme?
* Effect on Airworthiness Limitations, Flight Manual and Operating Manual?
* Weight and Moment change?
* Special test requirements?
 | RA 5865 (4) |  |  |  |
| Is the justification for repair classification provided?Is there evidence of special consideration of:* Repairs imposing subsequent limitations (turbine repairs with a specific limit on number of applications, number of repaired blades allowed per set, oversized fastener holes etc)?
* Repairs to life limited and critical parts (is TAA involved when necessary)?
* Repairs to engine critical parts (normally only accepted with involvement of TAA)?
 | RA 5865 (3) |  |  |  |
| Repair Classification and Approval |  |  |  |  |
| Has the TAA or Commodity CE invoked (or advised intent to invoke) repair classification and approval privileges from the DO?If so, has the DO established procedures and nominated personnel addressing the classification criteria in RA 5820 (MRP Part 21 Subpart D) and the Subpart M GM below:   | RA 5865 (4) |  |  |  |
| Major: * appreciable effect on structural performance?
* extensive static, fatigue and damage tolerance strength justification and/or testing in its own right?
* methods, techniques, or practices that are unusual (i.e. unusual material selection, heat treatment, material processes, jigging diagrams etc)?
* re-assessment and re-evaluation of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements?
* Repairs with effects considered minor ‘and needing minimal or no assessment of original certification data’ are to be considered Minor.
 | RA 5865 (3) |  |  |  |
| Do the procedures address/reference the additional guidance regarding Structure, Weight and Balance, Systems, Operational and other characteristics? | RA 5865 (3) |  |  |  |
| Where not all of the data is available to personnel classifying repairs, do procedures exist for a qualitative judgement to be recorded for initial classification, with subsequent review of design (possibly leading to reclassification) where the original assumptions are found not to be valid? | RA 5865 (3) |  |  |  |
| Do the classification procedures take into consideration the examples of Major Repairs contained in the GM: -* Introduces permanent additional inspection to the approved maintenance programme needed to ensure Type Airworthiness?
* Notes: - Temporary repairs needing specific inspections pending permanent repair do not necessarily need to be classified major.
* Inspections and changes to frequencies not required as part of approval to ensure Type Airworthiness do not cause major classification.
* Repairs to life limited or critical parts.
* Repair introducing a change to the ADS.
 | RA 5865 (3) |  |  |  |
| Issue of Repair Design Approval |  |  |  |  |
| Where approved by a DO under privilege, does the repair release documentation specifically state that the privilege has been identified under DAOS approval? | RA 5865 (5) |  |  |  |
| Limitations |  |  |  |  |
| Does the DO ensure that any limitations for a repair design are provided to the TAA?Are repairs accompanied by a CofD (RA 5103) listing any limitations and with embodiment instructions? | RA 5865 (8) |  |  |  |
| Unrepaired Damage |  |  |  |  |
| Has the TAA or Commodity CE invoked (or advised intent to invoke) privilege to assess unrepaired damage from the DO?If so, has the DO established procedures for this activity and nominated personnel?Does the DO include the need to inform the TAA when doing so in its procedures? | RA 5865 (9) |  |  |  |
| Record Keeping |  |  |  |  |
| Does the DO have procedures to ensure that all relevant repair design information, test reports, instruction and limitations are held by the repair design holder at the disposal of the TAA and that information to ensure type airworthiness is provided? | RA 5865 (10) |  |  |  |
| Instruction for Sustaining Type Airworthiness (ISTA) |  |  |  |  |
| Does the DO have procedures to ensure that it complies with RA 5815?Has a programme been provided to the TAA showing how updates and changes will be submitted to the TAA and distributed? | RA 5815 (1) |  |  |  |

| **Activity Areas Audited** | **Standard Reference** | **QM/Procedure Reference** | **Comments** | **Result** |
| --- | --- | --- | --- | --- |
| **MRP 21 Subpart P – Permit to Fly** |  |  |  |  |
| Where the DO is tasked to provide substantiating documents to the TAA in support of the Declaration of Compliance for a MPTF (Development), does the DO have procedures to ensure that these reports are identified and issued under the control of the DAOS system?Where the DO has the privilege for Flight Conditions, has it established procedures addressing the following:* Itineraries, operating bases or airspace?
* Qualifications and Competence of Flight Crew and FTEs?
* Limits, procedures or technical conditions (including Airworthiness Limitations) to be met?
* Reference to the principles in applicable CS?
* Notification to TAA of any evidence requiring a restriction to existing limitations, including to operators of similar type Air Systems?

Do the procedures consider:* Safe flight?
* Required substantiations?
* Configuration Control for changes that do not invalidate conditions of MPTF – otherwise see RA 5880 (6)?
 | RA 5880 (2)RA 5880 (3) |  |  |  |
| Has the DO established procedures for the approval of Flight Conditions? | RA 5880 (4) |  |  |  |
| Has the DO established procedures for the issue of a MPTF? | RA 5880 (5) |  |  |  |
| Has the DO established procedures for changes to the MPTF (note need further authorisation to actually fly)? | RA 5880 (6) |  |  |  |
| Has the DO and TAA been provided with access to the aircraft concerned to permit inspections? | RA 5880 (8) |  |  |  |
| Does the DO have processes for renewal of the MPTF? | RA 5880 (10) |  |  |  |
| Has the DO established procedures to satisfy obligations of the holder of the MPTF:* Compliance with conditions and limitations
* Distribution of MPTF and any amendment to Air System Operators
 | RA 5880 (11) |  |  |  |
| Has the DO established procedures to ensure TAA access to all information used to document or justify flight conditions for a period of 5 years beyond Air System OSD? | RA 5880 (12) |  |  |  |