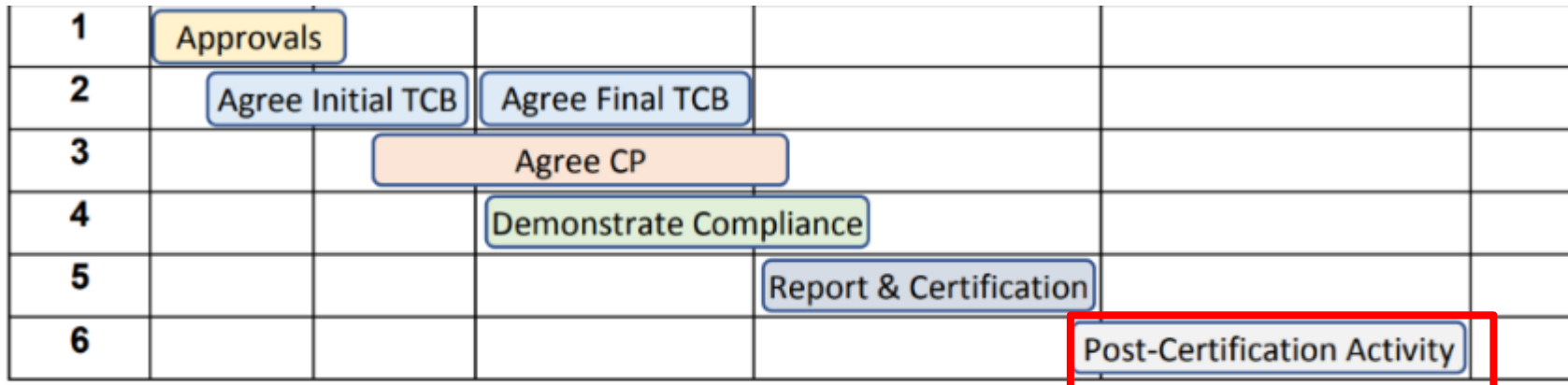


MACP Phase 6 – Post Certification Activities

The Military Air System Certification Process (MACP)



Military Air System Certification Process – Why?

- Certification is the foundation stone of:
 - Air System Airworthiness
 - the Equipment leg of the Type Airworthiness Safety Assessment
 - Continuing Airworthiness Management
 - through life Integrity Management
- The Type Design must be maintained throughout the life of the Air System, or, if changed, subject to further certification assessment.
- Certification underpins safety.



Post Certification Activities

Three Main groups of Post Certification Activities requiring MAA involvement:

- MACP Actions

E.g. Follow up of MAA recommendations from the Type Certification Report (TCR) and RTSR Audit Report may include MACP Actions relating to restrictions within the MTC or ADCC; completion will result in removal of the restrictions.

- Subsequent changes to the Type Design - New MACP cycle

- Modification e.g. addition of radar dome to Merlin;
- Change of use e.g. Marinization of Chinook.

- Sustaining Type Airworthiness through life.

[RA 5820 - Changes in Type Design \(MRP Part 21 Subpart D\)](#)

MACP Actions

- Remember any restrictions resulting from non-compliances identified during the MACP are detailed in the RMTC are addressed via limitations in the RTS.
- Non-compliances that result in MTC Restrictions will have associated MACP Actions that need clearing before the restriction can be removed.
- MACP actions are cleared by:
 - Obtaining additional compliance evidence or
 - Undertaking Design Changes to remove the non-compliance



Addressing MACP Actions

- The MAA may issue MACP Actions as part of the TCR
- DT agree with the MAA how and when MACP Actions are addressed
- Audit trail of actions taken and MAA agreements; e.g. via the MCRIs
- Actions cannot be closed without MAA agreement
- MACP Actions may remain open after Type Certificate issue or uplift likely resulting in:
 - Restrictions in the MTC or ADCC and
 - Associated Limitations in the RTS.



[Manual of Military Air System Certification \(MMAC\)](#)

Chapter 2: CERTIFICATION OF AIR SYSTEM TYPE DESIGNS AND THE MACP

Good Practice for Completing MACP Actions

- Agree priorities with the MAA
- Agree a course of action with the MAA to clear the issue
- Agree a timeline with the MAA
- Liaise regularly with the MAA to monitor progress
- MAA must agree closure of the action
- Keep an audit trail



Subsequent Changes to the Type Design

- Following initial certification, an Air System may have multiple design changes in various stages of maturity at any one time. Careful configuration management is essential.
- Each iteration of the MACP will amend the Air System Type Certification Basis
 - New or more recent applicable requirements may be added
- MACP artefacts will provide a wealth of information to support future Airworthiness Management.
- Good Information Management is essential to ensure that information is available to our successors.



[RA 1223 – Airworthiness Information Management](#)

[RA 5301 – Air System Config Management](#)

[RA 5820 - Changes in Type Design \(MRP Part 21 Subpart D\)](#)

AET Process 7:
Design Configuration Management

Sustaining Airworthiness

- The correct execution of Instructions for Sustaining Type Airworthiness (ISTA) (agreed at initial cert), managed through the Continuing Airworthiness Management Organisation (CAMO), will ensure the airworthiness of individual aircraft in-service.
- Maintain Air System Integrity.
 - Baseline established by initial certification.
 - Principles of Integrity Management covered by RA5726 and the Manual of Air System Integrity Management (MASIM)
- MACP artefacts will provide a wealth of information to support future Airworthiness Management.



[RA 4947 – Continuing Airworthiness Management \(MRP Part M Sub-Part G\)](#)

[RA 5726 – Integrity Management Manual of Air System Integrity Management](#)

Phase 6 Major Inputs and Outputs



Inputs:

- TCR MACP Actions
- RTSR Audit Report MACP Actions
- In service Design Changes
- Imperative to sustain Type airworthiness.

Outputs:

- Closure of MACP Actions
- Continued Airworthiness
- Maintenance of the Type Design

Phase 6 Post Certification Activities Refresher

The Awareness Course covered:

- Post Certification Activities
- The MACP Cycle
- Good Practice for Completing MACP Actions
- Integrity Management



Phase	C	A	D	M	I	D
1	Approvals					
2	Agree Initial TCB	Agree Final TCB				
3		Agree CP				
4			Demonstrate Compliance			
5				Report & Certification		
6					Post-Certification Activity	

Activity: Course Summary – Syndicate Exercise

The MACP

Summary Syndicate Exercise

Summary – The MACP

- Place each MACP activity shown on the padlets against the appropriate Phase in the MACP.

[Manual of Military Air System Certification \(MMAC\) \(publishing.service.gov.uk\)](http://publishing.service.gov.uk)



Phase 0 Plan	Phase 1 Authorisations	Phase 2 Type Certification Basis	Phase 3 Type Certification Programme	Phase 4 Type Certification Exposition	Phase 5 Type Certification Report	Phase 6 MACP Actions

End of Phase 6