

RA 5407 – Support Policy Statement

Rationale

An Air System Safety Case (ASSC) is critically reliant on a range of support requirements. The Support Policy Statement (SPS) is the executive document specifying all the support arrangements for an Air System and / or its associated equipment, when operated in the interest of the MOD¹. Failure to identify, provision for and articulate the range of support requirements is likely to compromise Air Safety. This RA describes the engineering and supporting administrative actions that are necessary to enable the safe and efficient operation of the Air System.

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Regulation 5407(1)

Support Policy Statement

5407(1) The Type Airworthiness Authority (TAA)² **shall** ensure that a SPS is produced, promulgated and maintained for their Air System.

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1. The SPS **should**:
 - a. Be promulgated as the first leaflet in the Topic 2(N/A/R)¹³ or equivalent, with specific support policy requirements identified in subsequent leaflets.
 - b. Detail the authorities and / or organizations with management responsibilities.
 - c. Define the on-Aircraft and equipment Maintenance philosophies (both Preventive and Corrective), and the methodology used to develop the relevant Maintenance schedule⁴.
 - d. Detail the Approved Data⁵ that enables delivery of the Support Policy, including the planned method for promulgating amendments.
 - e. Identify the equipment, Systems and commodity items which are included within the Safety Assessment but which are managed and supplied by other organizations, referencing any relevant individual SPS and necessary information from the relevant providers.
 - f. Identify the data to be gathered through life and how it will be managed to support the requirements for data exploitation⁶ and Fault trend analysis⁷.
 - g. Detail the utilization of Logistic Information Systems (LIS) that contribute to Air System operation⁸.
 - h. Define the approach to ensuring provision of sufficient spares to enable delivery of Instructions for Sustaining Type Airworthiness (ISTA)^{9, 10}.
 - i. Detail the arrangements for providing sufficient tools, test equipment and material to enable delivery of ISTA¹¹.
 - j. Detail the requirements and arrangements for appropriate training of ground-based personnel.

¹ Refer to RA 1160 – The Defence Air Environment Operating Framework. For Special Case Flying, the Type Airworthiness Manager (TAM) can choose to follow a similar approach within the construct of their own internal governance and procedures.

² Whilst the TAA holds the responsibility for producing the SPS, the information held within it may include aspects authored and approved by other key contributors.

³ Topic 2(N/A/R)¹ is a legacy military reference. Equivalent ISTA titles are acceptable.

⁴ Refer to RA 5320 – Air System Maintenance Schedule – Design and Validation.

⁵ Refer to RA 5815 – Instructions for Sustaining Type Airworthiness.

⁶ Refer to RA 1207 – Air Safety Data Management and Exploitation.

⁷ Refer to RA 5825 – Fault Reporting and Investigation.

⁸ Refer to RA 1223 – Airworthiness Information Management.

⁹ Refer to RA 4809 – Acceptance of Components (MRP 145.A.42).

¹⁰ Refer to RA 5855 – Parts and Appliances (MRP Part 21 Subpart K).

¹¹ Refer to RA 4808 – Equipment, Tools and Material (MRP 145.A.40).

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- k. Detail the requirements for support facilities and infrastructure, including Flight Simulation Training Devices¹² where applicable.
2. The SPS **should** be issued at initial authorization of the Release To Service (RTS) or the Military Permit to Fly (MPTF) (In-Service) and reissued at least every 5 years, or following significant change, to ensure continued alignment with ASSC requirements¹³. SPS requirements when an MPTF (Development) is generated **should** be defined by the TAA accordingly to be appropriate and proportionate for the phase of the project.
3. The TAA **should** ensure that a routine review of the SPS for continued accuracy is included within the Quality Management System.
4. Reviews of the SPS **should** be carried out in consultation with appropriate Military Continuing Airworthiness Manager and support organizations, including exploitation of all relevant data sources⁶.
5. Where equipment is provided by a Commodity Chief Engineer (CE)¹⁴, the TAA **should** ensure that sufficient information is either provided to support the Air System SPS, or produced in a standalone commodity SPS. The equivalent content of a commodity SPS **should** be proportionate to the complexity of the equipment, its support requirements and the Hazards it presents.

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6. The SPS will typically include the minimum requirements listed in Annex A.
7. The SPS describes the engineering and supporting administrative actions that are necessary to enable the safe and efficient operation of the Air System or Equipment and it forms an essential element of the ASSC, and Air System Document Set that underpins the RTS or the MPTF (In-Service) / MPTF (Development). A comprehensive SPS is also a key component of the Establish-Sustain-Validate-Recover-Exploit approach to Integrity Management¹⁵.
8. The Maintenance philosophy needs to address aspects such as the rationale for grouping of servicing operations, the anticipated location for their conduct (eg Forward or Depth), and relevant latitudes or periodicities.
9. The Approved Data will encompass ISTA⁵ provided by the appropriate Design Organization (DO). Approved Data may also include information (such as equipment bay servicing schedules) provided by Competent Organizations¹⁶ or from other Type Airworthiness (TAW) organizations, which is ultimately approved for use by the TAA¹⁷.
10. For off-board systems that contribute to Air System operation (such as Mission Planning tools and LIS), it is acceptable for support aspects to be addressed in their individual Safety Assessments rather than requiring a separate SPS. Each Safety Assessment will be referenced by the ASSC.
11. The individual equipment SPS referenced from the Air System SPS will include systems within the Air System Type Design (such as Avionics and Commodities), Air Launched Weapons and Role Equipment.
12. The TAA will need to ensure appropriate arrangements are in place with other TAW organizations responsible for delivering the required support according to the related SPS.

¹² Refer to RA 2375 – Qualification, Approval and Use of Flight Simulator Training Devices.

¹³ Refer to RA 1205 – Air System Safety Cases.

¹⁴ Refer to RA 5013 – Air Safety Management of Equipment and Commodity Items.

¹⁵ Refer to RA 5726 – Integrity Management.

¹⁶ Refer to RA 1005 – Contracting with Competent Organizations.

¹⁷ Refer to RA 1310 – Air System Document Set.

ANNEX A

AIR SYSTEM OR EQUIPMENT SUPPORT POLICY STATEMENT (SPS) MINIMUM REQUIREMENTS

Section	Description
Introduction	<p>The Introduction provides a brief description of the Air System / Equipment, its operational role, location of operating base(s) and the quantity of Air System / Equipment to be supported.</p> <p>The Introduction will also highlight any unusual features that are likely to influence support arrangements.</p>
Aim	<p>Detail the aim of the SPS in such a way to define the support arrangements necessary to maintain the Air System / Equipment type in the Defence Air Environment.</p>
Management Responsibilities	<p>Detail the authorities and / or organizations with management responsibilities. These will include the following:</p> <ul style="list-style-type: none"> • Co-ordinating DO (CDO) and significant DOs. • TAA and TAM (if applicable). • Release To Service Authority ▶◀. • ADH and / or AM(MF). • MOD Sponsor or Senior Responsible Owner. • Front Line Command. • Unit (Forward and Depth). • Military Maintenance Organizations and Approved Maintenance Organizations. • Continuing Airworthiness Management Organization.
Security Aspects	<p>Detail the security classification of the Air System / Equipment.</p>
Engineering Maintenance Philosophy	<p>Describe the Preventive and Corrective Maintenance philosophies (in Forward / Depth and Base / Line) applicable to the Air System / Equipment. This would include, but is not limited to:</p> <ul style="list-style-type: none"> • On-Aircraft Preventive Maintenance philosophy, covering: <ul style="list-style-type: none"> ○ Flight Servicing. ○ Preventive Maintenance. ○ Condition-based Maintenance. ○ Contingency-based Maintenance. ○ Anti-deterioration Maintenance. ○ De-contamination instructions and Maintenance. ○ Flight Testing. ○ Aircraft Displaying Abnormal Flying Characteristics. ○ Health Monitoring System. ○ Aircraft Weighing. ○ Equipment acceptance. ○ Maintenance of equipment in storage. ○ Calibration. ○ Flight Simulation Training Devices and Other Training Devices¹². ○ Dehumidification. • Limits for the deferral and, if required, anticipation of Preventive Maintenance. • Limits for the extension and, if required, anticipation of: <ul style="list-style-type: none"> ○ Explosives Maintenance lives (these also need to be detailed in the Joint Service Munitions Control Register). ○ Component scrap, reconditioning, bay Maintenance and textile scrap lives. • On-Aircraft Corrective Maintenance, covering: <ul style="list-style-type: none"> ○ Identification of Maintenance philosophy. ○ Allocation of on-Aircraft Corrective Maintenance. • Policy for the Air System's Electrical Wiring Interconnect System (EWIS), which will include:

	<ul style="list-style-type: none"> ○ A statement to ensure that pure polyimide wire is not introduced, as Aircraft Electrical Wire by Modification or Maintenance activity. ○ The conditions for the acceptable use of an environmentally sealed, in-line, crimped splice in the Air System's EWIS. ● Policy for the Air System's Fibre Optic systems including the foot printing requirements for Aircraft Data Bus systems. ● Equipment controlled by other TAW organizations – authorized equipment to be maintained in-phase with the Air System Maintenance cycle is to be detailed in the Topic 2(N/A/R)1 or equivalent. ● Component Maintenance – detail the arrangements for off-Aircraft Preventive and Corrective Maintenance of components. ● Surface finish ¹⁸ – detail the surface finish philosophy. ● Environmental Maintenance – due to the additional Risks associated with operations in an embarked maritime environment, desert environment or extreme cold weather environment, where necessary Risk Assessments will be completed to suit the environmental conditions. Specific cleaning and Maintenance procedures and routines are to be detailed in the Topic 2(N/A/R)1 or equivalent. ● Software support – describe the arrangements for software support. ● Safety and environment – detail how the Safety of the Air System / Equipment in its operating environment will be managed. In particular, identify the Safety Hazards to the equipment, in-use and during Maintenance. A non-exhaustive list of topics to be considered is: <ul style="list-style-type: none"> ○ Environmental: thunderstorm warnings, refuelling operations. ○ Contamination of the Air System / Equipment by body fluids. ○ Chemical Biological Radiological Nuclear procedures. ○ Radio frequency. ○ High voltages. ○ Hazardous materials. ○ Laser emissions. ○ Maintenance precautions, in particular handling Electro-Sensitive Semiconductor Devices. ○ Maintenance precautions, in particular working in Hardened Aircraft Shelters / Rubb Hangar.
Armed Air System	<p>Where appropriate, define the procedures in the Air System's Topic 2(N/A/R)1 and appropriate Topic 5 (or equivalent locations) for the following processes:</p> <ol style="list-style-type: none"> 1. Maintenance on armed Air Systems. 2. Maintenance on Air System armament systems. 3. Armed Air System safety precautions.
Independent Inspections	Detail a list of those systems that are subject to Independent Inspection in the appropriate system chapters of the ISTA.
Personnel and Training	Specify the trades and levels of skill / experience to be employed for ground-based personnel, ensuring that the levels set are the minimum required for the task, and identify the arrangements for appropriate training.
Test and Support Equipment	<p>Identify any of the following as required:</p> <ol style="list-style-type: none"> 1. General Purpose Test and Measurement Equipment. 2. Special-to-Type Test Equipment. 3. Ground Support Equipment (GSE). 4. Special-to-Type GSE. 5. Special-to-Type hand tools.
Technical Information (TI)	<p>Air Publications – identify the authorized Air Publications for the Air System / Equipment and the standard to which they are written.</p> <p>Maintenance Schedules – identify the authorized Maintenance schedules for the Air System / Equipment.</p> <p>Engineering Maintenance Documentation – detail the Maintenance documentation applicable to the Air System / Equipment.</p>

¹⁸ ▶ Refer to RA 4815(2): Procedures for Good Maintenance Practices (MRP 145.A.65(b)). ◀

	<p>Fault Report Procedures – detail the Fault reporting and Mandatory Fault Reporting Instruction procedures applicable to the Air System / Equipment.</p> <p>Special Instructions (Technical) (SI(T)) – detail the arrangements for issuing SI(T).</p> <p>Fatigue Data – state the arrangements for recording and handling fatigue data.</p> <p>Joint-Service Responsibilities – detail the procedures for obtaining support from, or providing support to, other Services.</p>
Facilities	<p>Air System Support – identify the resources required to support the Air System / Equipment, including any Contractor-run Maintenance organizations.</p> <p>Accommodation – identify the technical accommodation and any infrastructure requirements.</p> <p>Simulation Devices – specify where applicable Flight Simulation Training Devices and Other Training Devices are located.</p>
Information Technology (IT) Resources	<p>IT System – detail any IT systems that are provided exclusively to support the Air System / Equipment.</p> <p>LIS – detail the utilization of LIS for the Air System / Equipment.</p>
Supply Support Philosophy	<p>Detail the support arrangements for supply and logistics.</p>

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