

AEA Comparison Chart for Part 145 to Part 42-Subpart F CASA Notice of Proposed Rule Making

PROPOSED Part 145 RULE

Proposed Part 42 Subpart F Rule

Part 145 – Approved Maintenance Organisations	Part 42 – Continuing Airworthiness A SUBPART ‘F’ MAINTENANCE ORGANISATION
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<p>Part 145 – Approved Maintenance Organisations</p> <p>5.1 Overview of the Part</p> <p>5.1.1 Part 145 is similar to that published in the previous NPRM 0407MS and is divided into sections to easily locate specific areas of the Part. This Part should be read in conjunction with Part 42.</p> <p>5.1.2 This Part includes:</p> <ul style="list-style-type: none"> • Privileges and responsibilities of the maintenance organisation; • The requirement to authorise staff to perform and/or certify maintenance including special processes and tasks; • Public air transport operations using large aircraft must have maintenance performed by a Part 145 approved organisation; • Identification of facility requirements; • Identification of personnel requirements; • A process for preventative and corrective actions of maintenance errors; • A management system which is desirably integrated and will produce aviation safety and quality outcomes; 	
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<ul style="list-style-type: none"> • A maintenance organisation exposition containing elements on: <ul style="list-style-type: none"> - a management system including quality policy; - aviation safety policy; - maintenance procedures; - methods of certification for maintenance; - maintenance data to be held and controlled; and <ul style="list-style-type: none"> - equipment, tools and material control. • A staff training program; • Definition of the role of Category C licence holders who sign a Certificate of Release to Service after base maintenance; and • Alteration to the approval mechanism for specialised maintenance activities e.g. NDT and welding. 	
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5.2 The proposed policy	
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5.2.1 The proposed policy description outlined below is intended to give the reader an understanding of the main policy outcomes which this Part aims to achieve.	
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<p>5.2.2 Scope and terms of an approval</p> <ul style="list-style-type: none"> • Includes requirements to be met to qualify, or continue to qualify, to maintain aircraft and components, in accordance with the policy and procedures contained in the organisation’s exposition. 	<p>4.2.14 Scope</p> <ul style="list-style-type: none"> • A Subpart F maintenance organisation is generally a smaller or more specialised organisation that conducts maintenance which is not required to be covered by a Part 145 maintenance organisational approval. • Includes requirements to maintain aircraft and components other than large aircraft and their components in accordance with policy and procedures, contained in the organisation’s exposition. This Subpart includes the ability to approve the organisation. <p>Note: A Subpart F organisation may also seek approval to maintain aircraft used in public air transport that are not large or are not required to</p>
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	<p>use a Part 145 maintenance organisation. If the Subpart F organisation wishes the scope of its approval to cover this work, there will be some additional requirements it must meet. These are to ensure the relationship between it and the aircraft operator gives the outcome required to support public air transport operations. However, in this case the Acceptable Means of Compliance will provide guidance appropriate to the scope of the approved activities and the interconnection with the air operator.</p>
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<p>5.2.3 Applications</p> <ul style="list-style-type: none"> • Contains details on the initial application for an approval, or for the amendment of an existing approval, as a maintenance organisation. • Applications to be made by the Accountable Manager. • Applications should include: <ul style="list-style-type: none"> - a copy of the applicant’s exposition; and - detail the arrangements that the organisation has for access to facilities, equipment or data that the organisation does not own and proposes to use for the delivery of maintenance. 	<p>4.2.15 Application</p> <ul style="list-style-type: none"> • Organisational approvals will be issued and amended by CASA.
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<p>5.2.4 Facility requirements</p> <ul style="list-style-type: none"> • Organisations must provide facilities appropriate for all planned work having regard to environmental conditions. • Specialised workshops are to be segregated as appropriate to avoid contamination. • Appropriate office accommodation should be provided for the management and certifying staff. • Working environment must be appropriate for the tasks carried out such that the effectiveness 	<p>4.2.16 Facility requirements</p> <ul style="list-style-type: none"> • Organisations must provide facilities appropriate for all planned work with consideration of environmental conditions. • Specialised workshops must be segregated to avoid contamination. • Appropriate office accommodation should be provided for management and certifying staff. • The working environment must be appropriate to the tasks carried out such that the effectiveness of the personnel is not impaired by
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<p>of the personnel is not impaired by temperature, dust contamination, lighting or noise. Specific conditions identified in the maintenance data must be observed and include provision of Personal Protective Equipment (PPE) where required. If environmental conditions deteriorate to an unacceptable level, tasks must be suspended until satisfactory conditions are re-established.</p> <ul style="list-style-type: none"> • Secure storage for components, equipment, tools and material. Storage of parts and materials must be in accordance with the manufacturer’s requirements to prevent damage and deterioration. Access to parts and materials storage areas are to be restricted to authorised personnel only. 	<p>temperature, dust contamination, lighting or noise. Specific conditions identified in the maintenance data must be observed and include provision of Personal Protective Equipment (PPE) where required. If environmental conditions deteriorate to an unacceptable level, tasks must be suspended until satisfactory conditions are re-established.</p> <ul style="list-style-type: none"> • The must be secure storage for components, equipment, tools and material. Storage of parts and materials must be in accordance with the manufacturer’s requirements to prevent damage and deterioration. Access to parts and materials storage areas are to be restricted to authorised personnel only.
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<p>5.2.5 Personnel requirements</p> <ul style="list-style-type: none"> • The organisation must appoint an Accountable Manager with sufficient corporate authority to ensure adequate financial resources are available to support proposed or approved activities. The Accountable Manager must demonstrate a basic understanding of these Parts and ensure aviation safety, quality and compliance policies are established. • The organisation must appoint sufficient responsible managers including deputies with demonstrated knowledge, background and experience to ensure compliance with this Part. • The organisation must have the capability to plan maintenance man hours for any proposed maintenance activity. • The organisation must establish procedures to confirm the competence of personnel involved in maintenance and audits, with consideration given to job function, application of human factors and human performance issues. • The organisation must ensure personnel 	<p>4.2.18 Personnel Requirements</p> <ul style="list-style-type: none"> • The organisation must appoint an Accountable Manager with authority to ensure adequate financial resources are available to support proposed approved activities in accordance with this Part. The Accountable Manager must demonstrate a basic understanding of these Parts and establish appropriate policies to ensure compliance with this Subpart. • The organisation must appoint sufficient nominated persons with demonstrated knowledge, background and experience to ensure compliance with this Subpart. • The organisation must have the capability to plan staffing for any proposed maintenance activity. • The organisation must establish procedures to control the competence of personnel involved in maintenance with consideration given to job function, the application of human factors and human performance issues. • The organisation must ensure personnel
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performing NDT/NDI and other specialised tasks are appropriately qualified in accordance with CASA-recognised standards. (e.g. AS/NZ or ISO).

- Organisations maintaining large aircraft must have:

- For line maintenance, type rated B1 and B2 certifying staff. They may also use task authorised A licence holders for minor scheduled maintenance and simple defect rectification;
- For base maintenance, type rated staff in category C with sufficient B1 and B2 certifying staff to support the category C staff. B1 and B2 staff must certify tasks or inspections have been carried out prior to the category C certification.

- In the case of base maintenance of other than large aircraft, the organisation must have appropriate B1 and B2 licence holders.

- The organisation must maintain a register of authorised personnel.

- The category C certifying staff must ensure all work required by an operator is accomplished, or assess work not carried out for deferral to another specified check or time limit, with agreement of the operator.

- Where an organisation maintains an approved facility outside Australia, certifying staff may be qualified in accordance with the national aviation regulations of the state in which the organisation's facility is located, providing they meet equivalent standards to the appropriate CASR Part.

- An organisation may issue a limited authorisation for a repetitive pre-flight airworthiness directive, which allows flight technical crew to carry out the task where the authorisation is based on sufficient practical training.

performing NDT/NDI and other specialised tasks are appropriately qualified in accordance with Standards recognised by CASA (e.g. AS/NZ or ISO).

- The organisation must have appropriate licence holders (see Section 6 of this NPRM). Personnel may be sub-contracted in accordance with a procedure detailed in the exposition.

- The organisation must maintain a register of authorised personnel.

- The certifying staff must ensure all work required by a customer is accomplished, or assess work not carried out for deferral to another specified check or time limit.

<ul style="list-style-type: none"> • For aircraft operating away from a supported location, an organisation can issue flight crew with a limited certification authorisation for specific tasks following sufficient practical training in accordance with a procedure described in the exposition. • Following unforeseen cases where an aircraft is grounded away from a supported base, under certain circumstances a certification authorisation may be issued to an appropriately licensed person for a single operation under appropriate procedures. 	
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<p>5.2.6 Certifying staff and category B1 and B2 support staff</p> <ul style="list-style-type: none"> • An organisation must ensure certifying staff have an adequate understanding of the organisation procedures before the organisation issues or reissues an authorisation to its staff. • The organisation may issue an authorisation, in relation to a basic category, subcategory or type rating listed on an individual's Part 66 licence. • The minimum age for certifying staff is 21 years. • An organisation must ensure all certifying staff and B1 and B2 support staff are involved in actually carrying out maintenance and/or exercising certification privileges for at least 6 months in any consecutive 2 year period. • An organisation must establish a continuation and refresher training program to ensure that staff receive sufficient training to have up to date knowledge of relevant technology, organisational procedures and human factors issues. • The organisation must issue a certification authorisation which clearly specifies its scope 	<p>4.2.19 Certifying Staff</p> <ul style="list-style-type: none"> • The organisation must ensure certifying staff have an adequate understanding of the organisation procedures before the issue or reissue of an authorisation. • The organisation may issue an authorisation in relation to a basic category, subcategory or type rating listed on an individual's Part 66 licence. • The minimum age for certifying staff is 18 years. • The organisation must ensure the involvement of all certifying staff in maintenance and exercising certification privileges for at least 6 months in any consecutive 2-year period. • The organisation must issue a certification authorisation that clearly specifies its scope and limits and provide certifying staff with a copy of their authorisation. • A nominated person will be responsible for issuing certification authorisations to staff, in accordance with a procedure in the exposition. • The organisation must maintain records of all certifying staff containing details of Part 66
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<p>and limits and provide certifying staff with a copy of their certification authorisation.</p> <ul style="list-style-type: none"> • The person responsible for the compliance management will issue certification authorisations to staff, in accordance with a procedure in the exposition. • The organisation must maintain records of all certifying staff containing: <ul style="list-style-type: none"> - all training completed; - details of Part 66 licences; - the scope of each certification authorisation; and <ul style="list-style-type: none"> - particulars of additional staff with certification authorisations including limited or one-off authorisations. • Records must be retained for 2 years after an authorised person ceases employment, or the authorisation has been withdrawn. 	<p>licences, completed training and the scope of the each certification authorisation.</p> <ul style="list-style-type: none"> • Records must be retained for 2 years after an authorised person ceases employment, or the authorisation has been withdrawn.
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<p>5.2.7 Equipment tools and materials</p> <ul style="list-style-type: none"> • The organisation must have available all necessary tools, equipment and materials to perform the approved scope of work. Infrequency of use may be a reason to not require permanent access, as detailed in the exposition. • Use the manufacturer specified tools, equipment and materials, or alternatives by a procedure detailed in the exposition. • The organisation must ensure control and calibration of tools or equipment in accordance with a CASA recognised standard and be supported by appropriate records. 	<p>4.2.20 Component, Equipment and Tools</p> <ul style="list-style-type: none"> • The organisation must have available all necessary tools, equipment and materials to perform the approved scope of work, except where infrequency of use does not require permanent access as detailed in the exposition. • The organisation must use the manufacturer's specified tools, equipment and materials or agreed alternatives as detailed in the exposition. • The organisation must ensure control and calibration of tools or equipment in accordance with a CASA-recognised standard (e.g. AS/NZ, ISO or manufacturer) and be supported by appropriate records.
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<p>5.2.8 Acceptance of components</p>	
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<ul style="list-style-type: none">• All components will be classified and appropriately segregated as serviceable, unserviceable, unsalvageable, standard parts or material (both raw and consumable).• The organisation must ensure components are eligible for fitment with reference to modification and AD status.• The organisation may fabricate certain parts used in the course of maintenance within its own facilities, provided appropriate procedures are identified in the exposition.• Components which have reached their life limit or are non-repairable must be classified as unsalvageable and their continued use prevented.	
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<p>5.2.9 Maintenance data</p> <ul style="list-style-type: none">• The organisation must have access to and use applicable current maintenance data for all work undertaken. The organisation must establish a procedure to ensure the data it controls is kept up-to-date and is readily available for use when required by maintenance personnel.• For the purpose of Part 145, applicable maintenance data includes any CASA procedure, operational directive, airworthiness directive and instructions for continuing airworthiness issued by the type certificate holder or a standard recognised by CASA.• The organisation must establish a procedure to ensure any errors found in maintenance data are recorded and notified to the author of the data.• The organisation should not rely on data that it reasonably believes to be in error and should notify maintenance staff likely to utilise the data.	
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<ul style="list-style-type: none"> • The organisation may modify maintenance instructions, excluding engineering design of repairs and modifications, in accordance with a procedure detailed in the exposition. Changes must demonstrate that an equivalent outcome is achieved, and the type certificate holder and the aircraft operator must be informed of such changes. • The organisation must provide a common work card or worksheet system with precise references to the maintenance data. Where an operator requires their work card or worksheet system to be used, the organisation must establish a procedure to ensure correct completion of the operator's system. • Where work cards or worksheets are computer generated and held on an electronic database, it must be updated within 48 hours of work being carried out. 	
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<p>5.2.10 Production planning</p> <ul style="list-style-type: none"> • The organisation must have a planning system appropriate to the amount and complexity of work undertaken to ensure the safe completion of maintenance work and must take into account human performance limitations. • When required to hand over maintenance tasks due to shift or personnel changeover, relevant information must be adequately communicated. 	
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<p>5.2.11 Certification of maintenance</p> <ul style="list-style-type: none"> • A Certificate of Release to Service must be issued before flight when all maintenance has been carried out in accordance with the organisation's procedures, by appropriately authorised certifying staff on behalf of the organisation. • An Authorised Release Certificate must be 	<p>4.2.22 Certification of maintenance</p> <ul style="list-style-type: none"> • Certification will be carried out as per the requirements of Part 42.
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issued at completion of maintenance on a component. Where an organisation maintains a component for its own use, an Authorised Release Certificate is not required, providing the organisation has an approved internal release procedure defined in the exposition.

- When an organisation is unable to complete all maintenance, it must enter such fact in the aircraft certificate of release to service.
- When an aircraft is grounded at other than a main line station or main base due to the unavailability of a certified component, a component may be fitted without an appropriate release certificate where its serviceability is established in compliance with all applicable maintenance and operational requirements. Use of the component is limited to a maximum of 30 flight hours or until the aircraft first returns to a main line station or main base.

5.2.12 Maintenance Records

- The organisation must record all details of maintenance carried out. This must include records supporting the issue of the Certificate of Release to Service, including subcontractor's release documents.
- The organisation must provide a copy of each Certificate of Release to Service to the aircraft operator, together with any specific approved repair/modification data.
- The organisation must retain a copy of detailed maintenance records and maintenance data for 2 years from the date the work was released.
- Maintenance record storage must be designed to be safe from fire, flood and theft. Any computer back up disks or tapes must be kept at a different location and the organisation must ensure they remain in good condition.

4.2.23 Maintenance Records

- The organisation must record all details of maintenance carried out including records supporting the issue of the Certificate of Release to Service or contractor's release documents.
- The organisation must provide a copy of each Certificate of Release to Service, to the aircraft operator together with any specific approved repair/modification data.
- The organisation must retain a copy of detailed maintenance records and maintenance data for 2 years from the date the work was released.
- Maintenance record storage must be protected from fire, flood and theft. Any computer back up disks or tapes must be kept at a different location and the organisation must ensure they remain in good condition.
- Where an organisation terminates its operation,

<ul style="list-style-type: none"> • Where an organisation terminates its operation, all records covering the last 2 years must be distributed to the aircraft owner or registered operator. 	<p>all records covering the last 2 years must be forwarded to the registered operator.</p>
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<p>5.2.13 Occurrence reporting</p> <ul style="list-style-type: none"> • The organisation must report to CASA, the state of registry, the aircraft operator and the organisation responsible for the design of the aircraft or component any condition that has resulted in or may result in a hazard that seriously affects flight safety. • The organisation must establish a procedure, detailed in its exposition, for the collection, evaluation, reporting, analysis and circulation of information as necessary. 	
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<p>5.2.14 Management System</p> <ul style="list-style-type: none"> • The organisation must establish a management system to control aviation safety and compliance with this Part based on quality management. • The organisation must document procedures taking into account human factors and human performance, including: <ul style="list-style-type: none"> - all aspects of maintenance activity covered by the approval; - minimising the risk of multiple errors and methods to capture errors on critical systems; - establishing a system that includes an audit program to monitor compliance and includes quality aspects; and - a management review process reporting to the Accountable Manager to ensure timely corrective action in response to audit findings. 	
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<p>5.2.15 Maintenance Organisation Exposition document</p> <ul style="list-style-type: none"> • The exposition is a document that specifies the 	<p>4.2.17 Maintenance Organisation Exposition document</p> <ul style="list-style-type: none"> • The ‘exposition’ is an approved document that
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<p>scope of work approved and shows how the organisation intends to comply with this Part. The exposition must include:</p> <ul style="list-style-type: none"> - a statement signed by the Accountable Manager; - the organisation's management system; - titles, duties and responsibilities of nominated post holders and authorised persons and their deputies; - a specification of approved activities; - a description of manpower resources including an organisation chart and notification procedures for organisational changes; - the maintenance procedures established by the organisation including the amendment procedure; - a description of facilities including line stations; and - a list of contracted and sub-contracted organisations. <p>• Amendments to the exposition must be approved by CASA except where the approved exposition includes a procedure for minor amendments.</p>	<p>specifies the scope of activity and shows how the organisation intends to comply with this Subpart. The exposition must include:</p> <ul style="list-style-type: none"> - a statement signed by the Accountable Manager; - the organisation's management process and include an organisational review to determine that it continues to comply with this Subpart. The review must be conducted at least annually; - titles, duties and responsibilities of nominated and authorised persons; - a specification of approved activities; - a description of staffing resources and notification procedures for organisational changes; - the maintenance procedures established by the organisation including the amendment of procedures; - a description of its facilities; and - a list of any contracted organisations. <p>• Amendments to the exposition must be approved by CASA except where a procedure is approved for minor amendments.</p>
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<p>5.2.16 Privileges of the organisation</p> <ul style="list-style-type: none"> • In accordance with its approved exposition, the organisation will be entitled to carry out aircraft or component maintenance at approved and identified locations capable of supporting that maintenance. • It may subcontract work to an organisation working under its quality system, providing such work does not include base maintenance, a complete workshop check, overhaul of an engine or engine module. • Organisational approvals may be perpetual or granted with a time-limit, subject to continued compliance. 	<p>4.2.24 Privileges of the Organisation</p> <ul style="list-style-type: none"> • In accordance with its approved exposition, the organisation will be entitled to carry out aircraft or component maintenance at approved and identified locations capable of supporting that maintenance. • Approval of the organisation will be unlimited subject to continued compliance.
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<p>5.2.17 Administration and enforcement provisions</p> <ul style="list-style-type: none"> • This Part will operate in accordance with the administrative and enforcement processes contemplated by CASR Parts 11 and 13. 	<p>4.2.26 Administration and enforcement provisions</p> <ul style="list-style-type: none"> • This Part will operate in accordance with the administrative and enforcement processes covered by CASR Parts 11 and 13.
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	<p>4.2.25 Additional Requirements for Subpart F organisations working on Public Air Transport aircraft</p> <ul style="list-style-type: none"> • Organisations approved under this Subpart who are seeking an approval which has scope covering maintenance on small aircraft engaged in Public Air Transport must also ensure they meet the following additional requirements which are italicised: <ul style="list-style-type: none"> - The management process must include consideration of elements related to human factors, risks from occurrence of multiple maintenance errors and aviation safety considerations. - The certifying staff must ensure all work required by a customer is accomplished, or assess work not carried out for deferral to another specified check or time limit with agreement of the operator. - The minimum age for certifying staff is 21 years. - An organisation may issue a limited authorisation for a repetitive pre-flight or daily airworthiness directive that allows aircrew to carry out the task where the authorisation is based on sufficient practical training. - For aircraft operating away from a supported location, the flight crew can be issued a limited certification authorisation for specific tasks following sufficient practical training in accordance with a procedure in the exposition. - If following unforeseen cases where an aircraft is grounded away from a supported base, a certification authorisation may be issued for a single operation under appropriate procedures. - The organisation must maintain records of all certifying staff containing:
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	<ul style="list-style-type: none">- all training completed- details of Part 66 licences- the scope of each certification authorisation- particulars of additional staff with certification authorisations including limited or one-off authorisations.- For the purpose of this Subpart, applicable maintenance data includes any CASA procedure, operational directive, airworthiness directive, instructions for continuing airworthiness issued by the type certificate holder or a standard recognised by CASA.- The organisation must establish a procedure to ensure any errors found in maintenance data are recorded and notified to the author of the data.- The organisation should not rely on data that it reasonably believes to be in error and should notify maintenance staff likely to utilise the data.- The organisation may modify maintenance instructions, excluding engineering design of repairs and modifications, in accordance with a procedure detailed in the exposition. Changes must demonstrate an equivalent standard is achieved the type certificate holder and operator must be must be informed of such changes.- The organisation must provide a work card or worksheet system with precise reference the maintenance data. Where an operator requires their work card or worksheet system to be used, the organisation must establish a procedure to ensure correct completion of the operator's system.
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