

Design instrument of appointment procedures manual

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This document contains guidance material intended to assist CASA officers, delegates and the aviation industry in understanding the operation of the aviation legislation. However, you should not rely on this document as a legal reference. Refer to the civil aviation legislation including the Civil Aviation Act 1988 (Cth), its related regulations and any other legislative instruments—to ascertain the requirements of, and the obligations imposed by or under, the law.

Preface

As a Commonwealth government authority, CASA must ensure that the decisions we make, and the processes by which we make them, are effective, efficient, fair, timely, transparent, properly documented and otherwise comply with the requirements of the law. At the same time, we are committed to ensuring that all of our actions are consistent with the principles reflected in our Regulatory Philosophy.

Most of the regulatory decisions CASA makes are such that conformity with authoritative policy and established procedures will lead to the achievement of these outcomes. Frequently, however, CASA decision-makers will encounter situations in which the strict application of policy may not be appropriate. In such cases, striking a proper balance between the need for consistency and a corresponding need for flexibility, the responsible exercise of discretion is required.

In conjunction with a clear understanding of the considerations mentioned above, and a thorough knowledge of the relevant provisions of the civil aviation legislation, adherence to the procedures described in this manual will help to guide and inform the decisions you make, with a view to better ensuring the achievement of optimal outcomes in the interest of safety and fairness alike.

Chief Executive Officer and
Director of Aviation Safety

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Glossary

Acronyms and abbreviations

Acronym / abbreviation	Description
AEB	Airworthiness and engineering branch
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
DAPM	Design approval procedures manual
IOA	Instrument of appointment
IOAH	Instruments of appointment holder
MDMO	Manager design and manufacturing oversight
RMS	Record management system
SFR	Standard form recommendation
STC	Supplemental type certificates

Revision history

Amendments/revisions of this Manual are recorded below in order of most recent first.

Version No.	Date	Parts/sections	Details
2.2	October 2022	All	Administrative review only
2.1	August 2017	All	Incorporated TMI 2013-009, 2014-002, 2014-010 and 2015-003, and updated to new format and procedures
2.0	September 2013	All	Updated for CASR 21M. Removed CAR 35, 36. Incorporated TMI 2013-007 and 2013-008. Updated cost recovery and administration processes.
	November 2010	Table of Contents	Preface added
1.1	November 2009	All	Subsequent updates to released version
1.0	November 2009	All	Initial issue

Overview

1.1 Introduction

1.1.1 Background

Regulation 6 of CAR and Regulation 201.001 of CASR provide that CASA may appoint a person, which would include a person who is not a CASA officer, to be an authorised person for the purposes of the provisions of CAR and CASR where the expression 'authorised person' occurs. That expression appears in Part 21 of CASR for design activities and the appointment is referred to in this manual as an IOA.

The conditions to be included in the IOA vary substantially depending on the regulatory function the person is authorised to perform. Director Aviation Safety (DAS) policy notice DAS-PN022-2010 - Technical delegations and authorisations policy, provides policy to guide the process by which determinations are made as to whether an individual or organisation should be given a IOA.

1.1.2 Purpose of the manual

The purpose of this manual is to specify those conditions and elaborate on the guidelines in the DAS policy notice that are applicable to the process of issue, re-issue and variation of IOAs for design approval functions. In addition, it describes the process of cancelling an IOA at the request of the holder or instigated by CASA.

The processes pertaining to IOAs fall into the four categories as follows:

IOA – Initial issue

IOA – Re-issue

IOA – Variation

IOA – Cancellation

1.1.3 Governance for the four processes

The processes for initial issue of IOA and subsequent re-issue, variation or cancellation that are detailed in this manual are owned by the branch manager airworthiness and engineering and are managed in the design and manufacturing oversight section.

MDMO also known as the delegate, is responsible for the overall management of all aspects related to the processing of IOAs related to design approvals. Some aspects of the processes, particularly those related to administration, are indicated in general terms which the MDMO may specify in response to changing administration arrangements.

1.1.4 Roles and responsibilities

The following staff have a role in the processes described within this manual:

1. The MDMO is responsible for implementing the processes set out in this document and may consult with the branch manager airworthiness and engineering on all aspects of IOA processing.
2. For each of the IOA processing tasks, a designated certification engineer shall be nominated as the project manager who will make the recommendation to the delegate.

The project manager shall be responsible to meet CASA service delivery expectations and ensure that cost recovery regulations are complied with for each task.

3. Suitable administration staff shall support the cost recovery aspects of IOA processing along with administration aspects.
4. Specialists will provide input as required.
5. Accounts receivable, and suitable administrative staff will be responsible for ensuring that payment is received from the applicant for the requested regulatory service.

1.1.5 Legislative references

The IOAs for design approval functions cover the following provisions of CASRs:

- a) CASR subpart 21.M – Approval of design of a modification or repair
- b) CASR 21.009 – Approval of technical data
- c) CASR 21.006A - Approval of changes to aircraft flight manual
- d) CASR 21.007 – Approval of defect as a permissible unserviceability
- e) CASR 21.007A – Advice about whether damage is major damage
- f) CASR 21.095 – Approval of minor changes to type design
- g) CASR 21.120B – Variations of supplemental type certificates.

1.2 Details of assessment of applicants

1.2.1 Assessment of applicants for CASR subpart 21M / 21.009 / 21.006A / 21.007 / 21.007A / 21.120B and 21.095 IOA

For applicants to be considered for an appointment as an authorised person they must possess engineering qualifications and experience appropriate to the function. CASA recognises that individuals follow different professional development pathways and applications will therefore be assessed on a case-by-case basis. Nevertheless, the following criteria represent a minimum that should be met before an application would be accepted. In cases where criteria are not explicitly met, the candidate must demonstrate equivalent levels of engineering knowledge, experience and applicable training.

Minimum engineering qualifications and experience

- a) engineering qualifications acceptable for admission as a graduate member of the Institution of Engineers Australia. The engineering qualifications must be relevant to the engineering specialities for which authorisation is sought, and
- b) for CASR subpart 21.M and CASR 21.009(1)(f) authorisations, not less than four years postgraduate professional engineering experience in the preparation of Technical Data (per CASR 21.008) for aircraft designs, modifications or repairs, including:
- c) not less than one-year professional engineering experience in the preparation of certification documents (showing of compliance) for Technical Data for aircraft designs, modifications or repairs, and
- d) familiarity with the CASA approved procedures for issuing design approvals,
- e) at the discretion of the delegate, in lieu of, or in addition to, the formal engineering qualifications outlined at subparagraphs a and b an applicant for appointment to the

Flight analyst speciality may be a graduate of a recognised test pilot school (as either a test pilot or flight test engineer).

Criteria b and c would typically be demonstrated by submitting samples of work to CASA.

Flight analyst minimum specialist training requirements:

- a) mandatory training:
 - i. CASA certification flight test course, or
 - ii. CASA flight test analyst course (*under development*).
- b) recommended training:
 - i. courses relating to aeroplane or rotorcraft performance and flight characteristics provided by a reputable training institution or university.
 - ii. flight test engineer course provided by National Test Pilot School in the USA or equivalent.

Experience requirement for CASRs 21.009(1)(b), 21.009(1)(c), 21.009(1)(ca), 21.095, 21.120B, 21.007 and 21.007A

The experience requirement for CASRs 21.009(1)(b), 21.009(1)(c), 21.009(1)(ca), 21.095, 21.120B, 21.007 and 21.007A authorisations is further elaborated in applicable paragraphs below.

CASRs 21.009(1)(b) and 21.095 minimum engineering qualifications and experience

An applicant shall hold tertiary qualifications in the relevant engineering field for which the application is being made.

The applicant for a paragraph 21.009(1)(b) of the CASR authorisation must have held:

- a) a paragraph 21.009(1)(f) of the CASR authorisation in the relevant speciality field for at least three years
- b) the authorisation is still active.

The applicant for a regulation 21.095 of the CASR authorisation must have held:

- a) a regulation 21.437 of the CASR authorisation for three years
- b) a paragraph 21.009(1)(b) of the CASR for three years
- c) the authorisation is still active.

Note: In case of applicants working for aircraft manufacturers, the above-mentioned pre-requisite requirement of holding the CASR 21.009(1)(f) and/or 21.437 authorisation(s) may be relaxed by the delegate. In such cases, the minimum experience requirement for CASR 21.009(1)(b) and 21.095 authorisations will be 6 years and 8 years, respectively.

An applicant must demonstrate to CASA that they have suitable experience in the finding of compliance for the approval of type certificates or amendments to type certificates for each speciality they are seeking the authorisation. The experience presented must demonstrate that:

- a) the authorised person understands the type certification process
- b) is able to make consistent determinations of major and minor changes in the type design using CASA AC 21-12
- c) has suitable experience in the relevant engineering speciality.

The experience will be demonstrated through:

- a) providing at least six samples of work for each speciality that they wish to be considered for. CASA will review these samples of work to determine if they demonstrate the required understanding
- b) CASA reviewing previous surveillance findings to confirm compliance with the requirements of their instrument of appointment for paragraph 21.009(1)(f) and/or regulation 21.437 of the CASR procedures manual as appropriate.

CASRs 21.009(1)(c), 21.009(1)(ca) and 21.120B minimum engineering qualifications and experience

Tertiary qualifications in an engineering discipline that is relevant to the individual's scope of authorisation. The qualifications should be at least equivalent to:

- a) a 4-year Bachelor of Engineering degree under an Australian accredited or recognised program
- b) for CASR 21.009(1)(c) and 21.009(1)(ca) at least 6 years, and for CASR 21.120B at least 8 years of progressively responsible experience in an engineering discipline that is relevant to the individual's scope of authorisation
- c) at least 2-years current or previous experience as an individual authorised to approve technical data or carry out design activities—either under subpart 21.J or a CASA instrument of appointment—with a scope of authorisation similar to the CASR 21.120B scope of authorisation
- d) experience in certification processes relevant to CASR 21.120B approvals
- e) experience working with other technical disciplines.

Criteria b, c, d and e would typically be demonstrated by submitting samples of work to CASA.

Note: Typically, the samples provided would be from two completed STC projects that the applicant has had prior involvement.

CASR 21.007 / 21.007A minimum engineering qualifications and experience

Tertiary qualifications in an engineering discipline that is relevant to the scope for which the applicant is seeking CASR 21.007 / 21.007A authorisation. The qualifications should be at least equivalent:

- a) to a 4-year Bachelor of Engineering degree under an Australian accredited or recognised program
- b) at least 10-years of progressively responsible experience in an engineering discipline that is relevant to the scope for which the individual is seeking CASR 21.007/21.007A authorisation
- c) at least 2-years current or previous experience as an individual authorised to carry out design activities—either under subpart 21.J or a CASA instrument of appointment—with a scope of authorisation similar to the CASR 21.007/21.007A scope of authorisation
- d) experience in certification processes relevant to CASR 21.007 approvals
- e) experience working with other technical disciplines.

Criteria b, c, d and e would typically be demonstrated by submitting samples of work to CASA.

New applicants who only meet the minimum requirements will typically be granted an authorisation initially for CASR 21.009 only. This decision in each case will depend on individual circumstances and is at the discretion of the delegate.

The IOA will limit approvals to those engineering specialities for which the candidate has been assessed as holding appropriate engineering qualifications and experience. Definitions for the engineering specialities are specified in annex C.

The application for IOA shall identify the regulations for which authorisations are being requested, the engineering specialities and any other appropriate limitations. The application will include proof of educational qualifications, a resume, draft procedures manual and at least two samples of work (for each speciality) where the candidate has been involved in finding of compliance to the certification design standards. Formal assessment of the submitted documentation will commence only after the completion of the required cost recovery actions per the relevant regulations.

A project manager shall be appointed by the MDMO for each IOA processing task.

The candidate shall be called for an interview only if the initial evaluation of the documents indicates a basis for further considerations. CASA may request additional documentation as required to support the assessment. The interview panel will consist of the project manager and at least one other AEB engineer. The panel members should collectively possess expertise covering all of the engineering specialities being sought. The project manager shall chair the interview. The general format to be followed at the interview is at annex A. A copy of the format shall be provided to the candidate before the interview.

The interview shall be conducted and recorded by adding comments to the interview format. The original (or certified true copy) degree certificate shall be sighted and recorded on the interview record. Input from the panel members shall be collated by the project manager into one document. The interview record shall include a recommendation to the delegate and the reasons given.

The project manager shall make the recommendation to MDMO to grant or refuse the application. If the recommendation is to grant the authorisation, then the recommendation will include a draft IOA which references a suitable design approval procedures manual prepared by the candidate (refer section 1.2.5).

The project manager shall advise the applicant in writing of the outcome. If the application is refused, then the reasons shall be given.

The IOA shall be valid for not more than two years and the general format of the IOA is at annex B.

1.2.2 Assessment of candidates for CASR 21.009(1)(ca) and CASR 21.120B

The candidate assessment process (figure 1) consists of the following elements:

- a) the applicant is the STC holder or has an agreement with the STC holder
- b) the qualifications and experience claimed by the applicant are assessed by the assigned CASA certification engineer / project manager against the minimum requirements
- c) if the minimum requirements are not met, the certification engineer will inform the applicant in writing that the application is unsuccessful and the reasons given
- d) if the applicant's claims meet the minimum requirements, the certification engineer shall request samples of work covering the engineering specialities for which the

authorisation is being sought. At least two samples should be provided for each technical speciality

- e) the samples are reviewed by the certification engineer for technical and procedural quality. CASA technical specialists may be requested to assist the certification engineer by conducting a technical review of the samples. If the samples are found to be unsatisfactory, the certification engineer will inform the applicant in writing that the application is unsuccessful and the reasons given
- f) the certification engineer shall review a copy of the applicant's draft procedures for CASR 21.120B. This would typically be an amendment to an existing DAPM
- g) if the draft procedures manual is found to be unsatisfactory, the certification engineer shall inform the applicant of the deficiencies in writing and request an amendment. The certification engineer shall review any amendments and the process repeated until the draft procedures are found to be satisfactory
- h) the certification engineer, in consultation with the MDMO, will decide if an interview is necessary. It may not be considered necessary in cases where the applicant is already an experienced CASR 21.009 authorised person
- i) if it is decided that an interview is required, the certification engineer will arrange to interview the candidate. The interview panel shall consist of the certification engineer and at least one other AEB engineer. The panel members should collectively possess expertise covering all the engineering specialities being sought. The interview topics will be similar to those provided in annex A. The interview record pro-forma at annex A shall be used as a reference. A copy shall be provided to the candidate before the interview
- j) the interview shall be conducted and recorded by adding comments to the interview record pro-forma at annex A. The original (or certified true copy) degree certificate shall be sighted by the certification engineer and recorded on the interview record unless CASA records show that it has been previously sighted. Input from the interview panel members shall be collated by the certification engineer into the one document. The record shall include a recommendation to the delegate and the reasons given
- k) the certification engineer shall make the recommendation to the MDMO to grant or refuse the application to the CASA delegate using the SFR process. If the recommendation is to grant the authorisation, then the SFR shall include a draft IOA
- l) the certification engineer shall advise the applicant of the outcome in writing. If the application is rejected, then the reasons shall be given.

Note: If the candidate does not have prior authorization in CASR 21.009(1)(ca), CASR 21.120B and 21.009(1)(ca) authorisation will be granted simultaneously

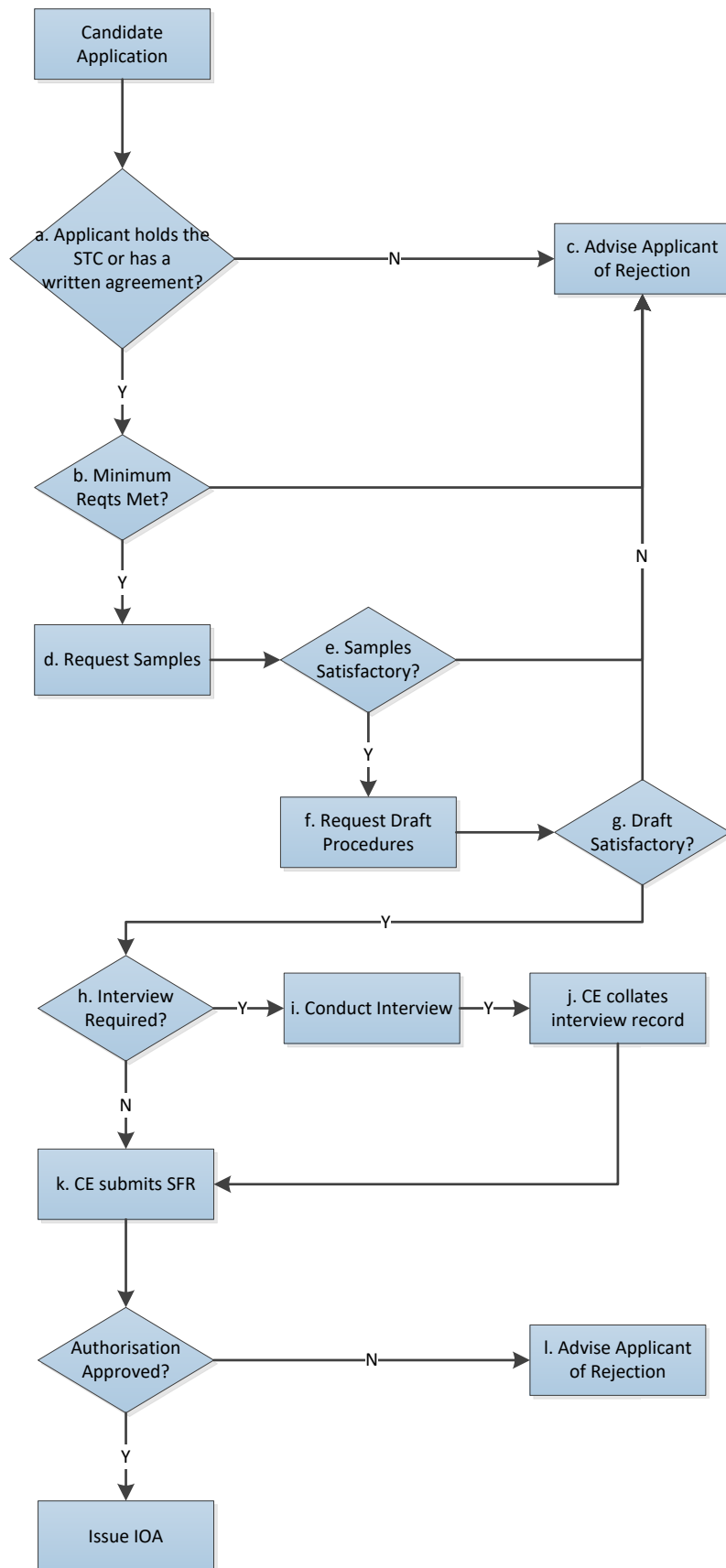


Figure 1 – Assessment of candidates for 21.009(1)(ca) and CASR 21.120B

1.2.3 Assessment of candidates for CASR 21.007

The candidate assessment process (figure 2) consists of the following elements:

- a) the qualifications and experience claimed by the applicant are assessed by the assigned CASA certification engineer against the minimum requirements
- b) if the minimum requirements are not met, the CASA certification engineer will inform the applicant in writing that the application is unsuccessful and the reasons given
- c) if the applicant's claim meets the minimum requirements, the certification engineer shall request samples of work covering the engineering specialities for which the authorisation is being sought. The samples should include documents demonstrating compliance with applicable airworthiness standards. At least two samples should be provided for each technical speciality
- d) the samples are reviewed by the certification engineer for technical and procedural quality. CASA technical specialists may be requested to assist the certification engineer by conducting a technical review of the samples. If the samples are found to be unsatisfactory, the certification engineer will inform the applicant in writing that the application is unsuccessful and the reasons given
- e) if the applicant's organisation does not already have CASA approved procedures for CASR 21.007, the certification engineer shall request a copy of the applicant's draft procedures. This would typically be an amendment to an existing DAPM
- f) if the draft procedures manual is found to be unsatisfactory, the certification engineer shall inform the applicant of the deficiencies in writing and request an amendment. The certification engineer shall review any amendments and the process repeated until the draft procedures are found to be satisfactory
- g) the certification engineer, in consultation with the MDMO, will decide if an interview is necessary. It may not be considered necessary in cases where the applicant is already an experienced CASR 21.009 authorised person
- h) if it is decided that an interview is required, the certification engineer will arrange to interview the candidate. The interview panel shall consist of the certification engineer and at least one other AEB engineer. The panel members should collectively possess expertise covering all the engineering specialities being sought. The interview record pro-forma at annex A shall be used as a reference. A copy shall be provided to the candidate before the interview
- i) the interview shall be conducted and recorded by adding comments to the interview record pro-forma at annex A. The original (or certified true copy) degree certificate shall be sighted by the certification engineer and recorded on the interview record unless CASA records show that it has been previously sighted. Input from the interview panel members shall be collated by the certification engineer into the one document. The record shall include a recommendation to the delegate and the reasons given
- j) the certification engineer shall make the recommendation, to grant or refuse the application to the CASA delegate using the SFR process. If the recommendation is to grant the authorisation, then the SFR shall include a draft IOA
- k) the certification engineer shall advise the applicant of the outcome in writing. If the application is rejected then the reasons shall be given.

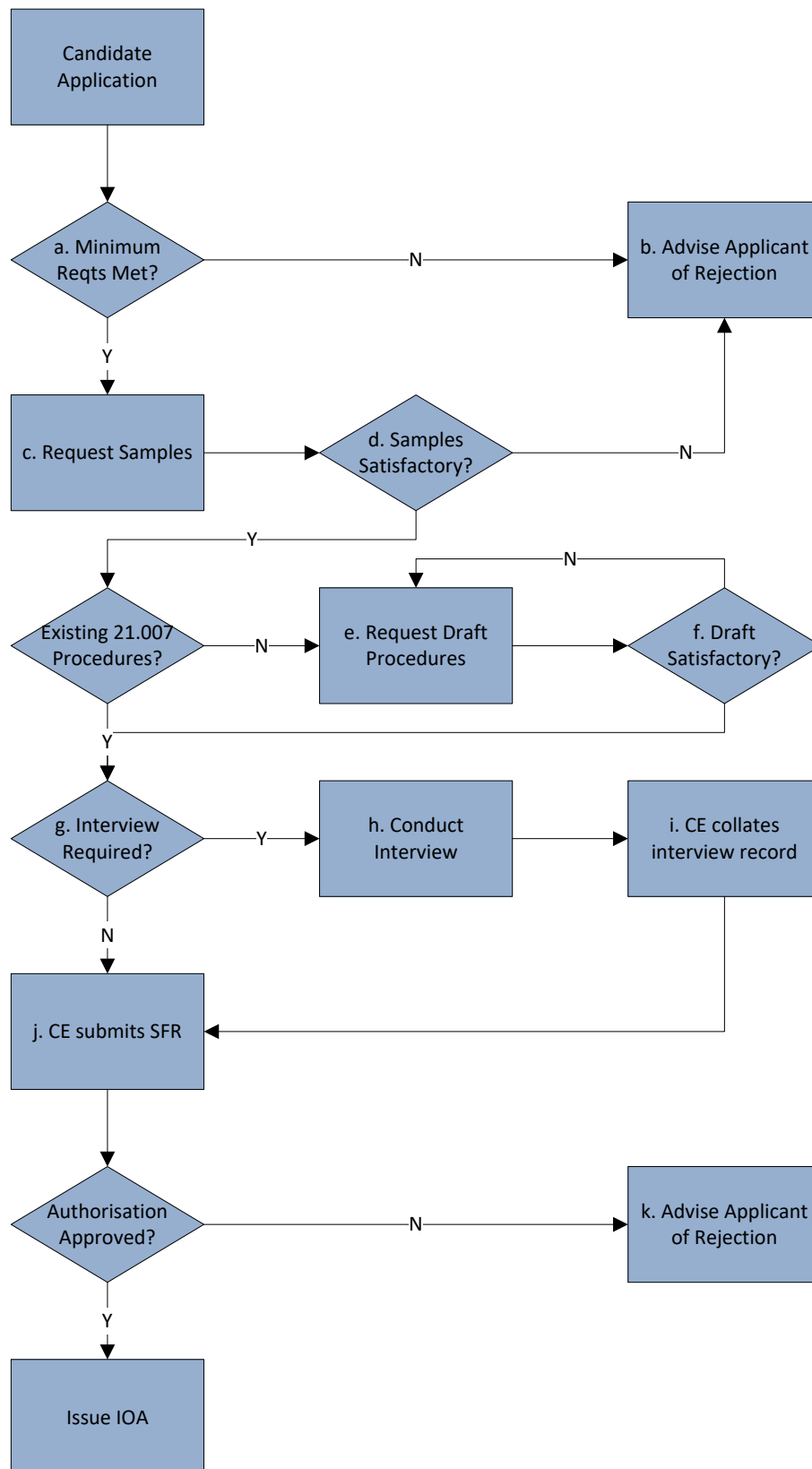


Figure 2 – Assessment of Candidates for CASR 21.007

1.2.4 Assessment of candidates for CASR 21.095

The qualification and experience requirements for the candidates for CASR 21.095 will be based on the candidate's exposure to other design approval activities as an authorised person. The candidate is expected to have significant experience in finding compliance to airworthiness standards and will typically be a current CASR subpart 21.M, regulation 21.006A, and paragraph 21.009(1)(f) IOA holder in the relevant speciality.

As part of the assessment of an application CASA will review surveillance findings of each applicant and/or the related organisation. The assessment of the surveillance finding is to establish if the applicant understands the surveillance process, how cooperative the applicant has been in rectifying surveillance findings and whether the issuing of the authorisation will increase CASA's workload.

It will be necessary for the authorised person to have a written agreement with each type certificate holder that will allow the authorised person to act on their behalf and for access to the required technical data that defines the type design of the type certificate. A copy of each written agreement that relates to the authorisation application must be submitted when the applicant is not an employee of the type certificate holder.

The applicant for paragraph 21.009(1)(b) and regulation 21.095 of the CASR authorisation must have adequate facilities to carry out the function. These facilities shall have at least:

- a) access to the appropriate technical data, reference materials, regulations, etc.
- b) suitable storage facility
- c) required equipment that is appropriately controlled and calibrated.

Formal assessment of the application will commence only after the completion of the required cost recovery actions per the relevant regulations.

A certification engineer / project manager shall be appointed by the MDMO for each IOA processing task.

CASA may request additional documentation as required to support the assessment.

If the evaluation establishes the suitability of the candidate to hold the IOA, the certification engineer/project manager will make a recommendation to the delegate to issue the IOA provided a suitable procedures manual referenced in the IOA has been prepared by the candidate (see section 1.2.5).

In case the candidate is found unsuitable, the certification engineer/project manager shall discuss with the delegate and certification engineer/project manager will inform the candidate the reasons for such a decision.

1.2.5 AEB oversight of organisation's design approval procedures manual

The organisation's DAPM for design approval shall comprise of two sections:

- a) the approved section
- b) the accepted section

The approved section requires prior approval from CASA before changes can be made to it. However, the accepted section can be changed by the authorised person and sent to CASA and is deemed 'accepted' if no contrary information is received within 30 days.

The approved section of the DAPM will elaborate on the IOA requirements and specify the process to be followed for making a design approval. This section of the DAPM, linked to an IOA shall include:

- a) procedures for revising the manual
- b) data retention procedures
- c) procedures for the major/minor classification of alterations
- d) design approval coordination procedures for approvals involving multiple IOA holders
- e) definitions of the engineering specialities and limitations contained in the IOA
- f) procedures for peer review of the approval documentation
- g) conditions under which CASA must be consulted prior to approvals
- h) documentation requirements to find and certify compliance to the relevant regulations and or design standards.

The accepted section of the DAPM will detail how the requirements of the approved section shall be met and will include the organisation's own forms and documentation formats.

DAPM guidelines applicable to specific regulations are detailed at annex C and D.

1.2.6 Issues for consideration during assessments for IOAs

The following considerations cover all aspects of IOA processing and should be taken into account during the four categories of IOA processing:

- a) in some cases, the candidates may hold an IOA with one organisation and moves over to another, in which case formal assessment may not be required provided there is no substantial change in the authorised functions.
- b) the procedures for the inclusion of a new person to an existing IOA shall not include review of the organisations DAPM as long as there is no change to the IOA applicability per section 1.1.5 of this manual
- c) in cases where the IOA is renewed for a shorter term due to inadequate response from the authorised person, additional cost recovery actions may be required when the IOA is renewed again to extend it to the full term of two years
- d) if there has been no activity for a period of two years, the delegate may refuse to renew the IOA on the basis that there is not genuine need for the authorisation
- e) IOAs not renewed due to lengthy periods of inactivity (up to 4 years) by the authorised persons may be re-issued per section 2 without the need for review of work samples. An abridged interview format may be used
- f) candidates who have not been on an IOA for more than 4 years will be treated as fresh applicants
- g) as far as practicable, all authorisation noted in section 1.1.5. shall be combined into one IOA to ensure ease of re-issues
- h) all IOAs should include speciality and scope specifications for the authorised persons.

1.2.7 Administrative components of assessment

The administration arrangements are indicated in general terms which the responsible manager may specify in detail in response to the changing arrangements from time to time.

All IOA processing requests shall be sent to the airworthiness and engineering administration section where a task number will be assigned and the documents filed in the CASA filing system. All subsequent documentation shall be filed indicating the task number in the "subject" line.

All IOAs shall have a reference number, which shall be assigned before it is signed by the delegate. The final documentation shall be prepared by the administration staff, the original sent to the authorised person, and relevant entries made in the required CASA documentation system.

The certification engineer/project manager shall provide the cost estimate to the administration group for further processing.

Any phone calls made by any CASA officer to the applicant or other parties pertinent to the application may be logged in the comments field of the relevant task in the branch workflow system. The following may be recorded:

- a) nature of call
- b) to whom the call was made or received
- c) actions resulting from the call
- d) staff member who handled the call
- e) time and date of call.

Initial issue of an IOA process

1.3 Background

1.3.1 Purpose of the initial issue of an IOA process

To issue IOA to industry personnel to perform some regulatory functions on behalf of CASA, subject to conditions stipulated in the IOA.

An applicant for an IOA to carry design approval functions may apply for appointment in one or more of the following engineering specialities:

- a) structures
- b) system and equipment (mechanical)
- c) system and equipment (electrical)
- d) system and equipment (instrument)
- e) system and equipment (radio)
- f) system and equipment (electrical -limited)
- g) system and equipment (instrument - limited)
- h) system and equipment (radio - limited)
- i) flight analyst

- j) engines
- k) propellers
- l) software
- m) material and process.

1.3.2 Description of the initial issue of an IOA process

The Initial Issue process comprises the submission of an application for an IOA, the assessment of the application and the issue of an IOA if the candidate is suitable to hold an IOA or refusal if the candidate is found to be unsuitable.

The application can be made by email and there is no prescribed form for the application.

This process exists to allow CASA to appoint authorised persons to carry out design approval functions under the following provisions:

- a) CASR subpart 21.M - Approval of design of a modification or repair
- b) CASR 21.009 - Approval of technical data
- c) CASR 21.006A - Approval of changes to aircraft flight manual
- d) CASR 21.007 – Approval of defect as a Permissible unserviceability
- e) CASR 21.007A - Advice about whether damage is major damage
- f) CASR 21.095 - Approval of minor changes to type design
- g) CASR 21.120B - Variations of supplemental type certificates.

The CASR vests specific regulatory powers which include approvals of designs for aircraft and aeronautical products.

The scope of the IOA issued will depend on the applicant's qualifications, experience, and in certain cases, employment arrangements. The scope may be limited to designs to one or more airworthiness standards (e.g. FAR Part 23 or equivalent) or a category of aeronautical products (e.g. piston engines) or a category of systems (e.g. cabin systems).

The issue of an IOA is at the discretion of CASA and will be considered on a case-by-case basis.

The outcome of the process is the appointment of an authorised person.

1.3.3 Roles, IT systems and artefacts

The following staff members have a role in the Initial Issue of an IOA process:

- a) the MDMO, the delegate,
- b) project manager – a certification engineer
- c) suitable administrative staff
- d) accounts receivable

The following IT systems are used during this process:

- a) EAP
- b) RMS
- c) branch workflow system

- d) regulatory fee estimator
- e) word and excel.

The following artefacts are used during this process:

- a) design approval procedures manual (DAPM) CASA guidelines for new candidates (annex C)
- b) DAPM guidelines compliance checklist (annex C).

1.3.4 Triggers / inputs

The trigger for this process is the submission of an application by a person seeking an IOA. This is generally by email.

1.3.5 Guides

Guidance for completion of the process can be found in this manual, and in the Legislation described in section 1.1.5 of this manual.

1.3.6 Outputs

For a successful candidate, the outputs from this process include the original IOA, an accompanying letter and a receipt for payment.

For an unsuccessful candidate, the outputs from this process include a refusal letter or email and a receipt for payment.

1.4 Details of process

1.4.1 Process information

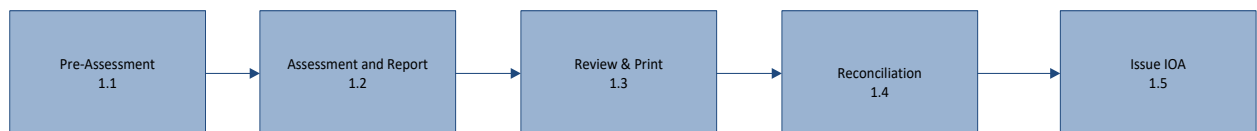


Figure 3 – Process One: Initial Issue of an IOA – High-level

Process One: Initial issue of an IOA - high-level activity steps

Activity 1.1 Pre-assessment

1. Administration staff complete the initial processing of the application.
2. MDMO completes an initial review of the qualifications and experience of the applicant and appoints a PM.
3. The PM makes full review of the qualifications and experience of the applicant, and if satisfactory, completes a cost estimate for the issue of the IOA.
4. The applicant is contacted by the administrative staff regarding the estimated cost and request payment, or a purchase order is requested.
5. Assessment can begin when payment or receipt of the purchase order is confirmed.

Activity 1.2 Assessment and report

1. The PM assesses the draft DAPM and samples of work. If samples of work are not of an acceptable standard, the application is refused and the applicant informed by the PM.
2. If the standard of samples of work is acceptable, the interview is conducted with the applicant.
3. The report including the SFR to issue or not issue the IOA is completed. If the recommendation is to issue, the draft IOA is also completed.
4. The report, SFR and draft IOA, if applicable, are attached to RMS and its reference provided to the delegate for review of the documentation.

Activity 1.3 Review and print

1. The delegate reviews the report and draft IOA, if applicable. PM edits draft report and IOA, if required.
2. If the recommendation is to not issue an IOA, the applicant is informed by the PM and the task closed.
3. If the recommendation is to issue an IOA, the delegate may direct the administration staff to print and send these documents to the delegate for approval, and signature. The administration staff will place the CASA stamp adjacent to the signature.

The applicant's address and total time spent on the job will be requested by the administration staff from the PM.

Activity 1.4 Reconciliation

1. The final amount for the processing of the application is calculated.
2. If there is a discrepancy, further payment is requested or a refund processed. An invoice is raised for the final amount for applicants with an account.

Activity 1.5 Issue IOA

1. A covering letter for the IOA holder may be prepared.
2. Details of the IOA are entered into EAP.
3. The task is closed and all correspondence filed in RMS.
4. IOA and letter is sent to the IOA holder.



Pre-Assessment activity steps (1.1)

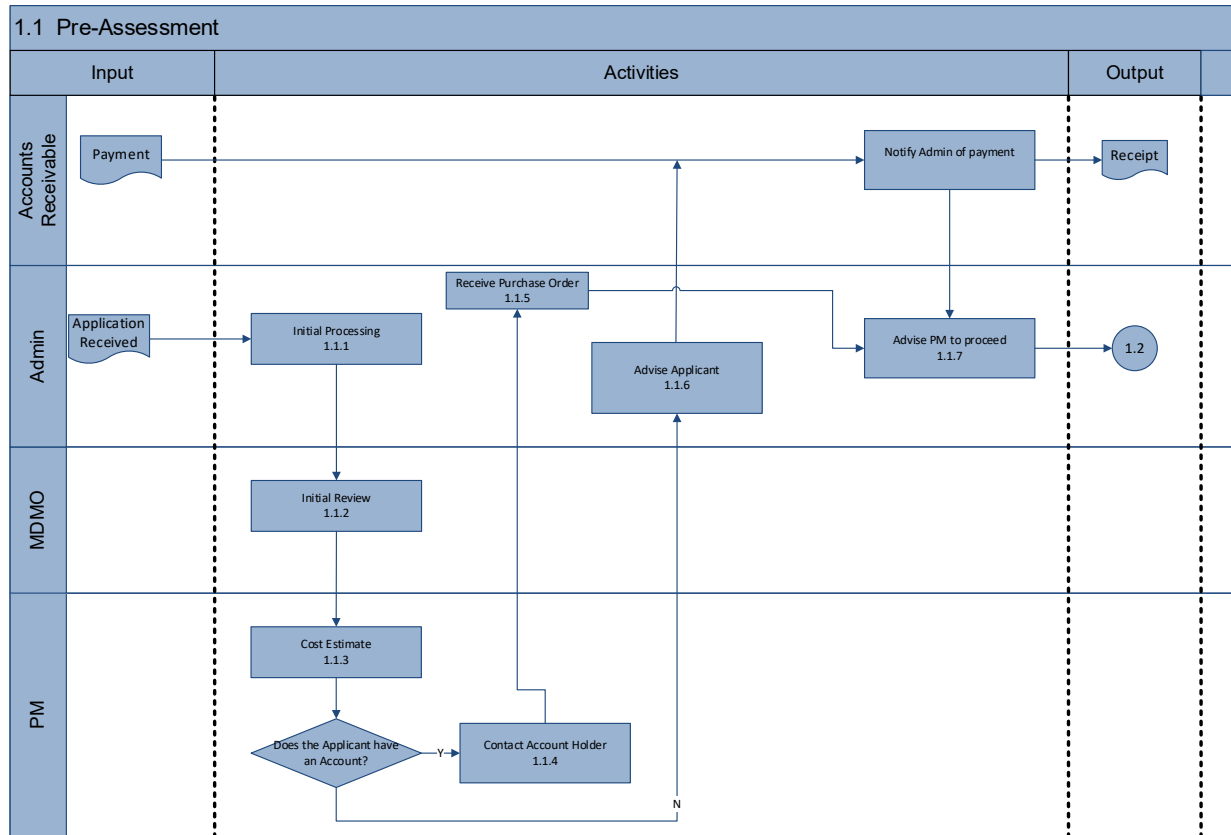


Figure 4 –Pre-assessment process map

Activity 1.1.1 Initial processing

1. Receive application at aircraft.certification@casa.gov.au.
2. Check applicant ARN.
3. Acknowledge application by email.
4. Allocate a task ID by registering task in the branch workflow system.
5. RMS the application and email to the relevant IOA file held by the Design and Manufacturing Oversight section of AEB in Melbourne. If there is no RMS file, request administration to allocate a file number.
6. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA Amendment to IOA Aeronautical Engineers Australia 123 RMS 09/123.
7. Forward Application, task ID number and RMS reference to the MDMO.

Activity 1.1.2 Initial review

1. Ensure task ID has been allocated.
2. Review the application and the qualifications and experience of the applicant. If the applicant is not qualified to hold an IOA, refuse application and inform applicant.
3. Identify Project Manager.

Activity 1.1.3 Cost estimate

1. Prepare cost estimate for the assessment and issue of an IOA.
2. Send cost estimate (as hours) to administration.
3. If applicant is an account holder, proceed to activity 1.1.4, otherwise proceed to activity 1.1.6.

Activity 1.1.4 Contact account holder

1. Email applicant with estimate and request Purchase Order be sent to administration.

Activity 1.1.5 Receive purchase order

1. Receive Purchase Order if applicant is an account holder and proceed to activity 1.1.7.

Activity 1.1.6 advise applicant

1. Create a new Cost Estimate in the regulatory fee estimator with the task ID number as the Job Ref No.
2. Enter the total estimated hours (including administration time) into the relevant sections of the Cost Estimate.
3. Compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au.
4. Wait for notification by email at aircraft.certification@casa.gov.au from Accounts receivable that payment has been received and a receipt issued.
5. Make entries in the regulatory fee estimator to indicate that payment has been received.

Activity 1.1.7 Advise PM to proceed

1. Email PM notifying that payment of the estimate has been received, or a Purchase Order received and that they can now commence work on the task.

Assessment and report activity steps (1.2)

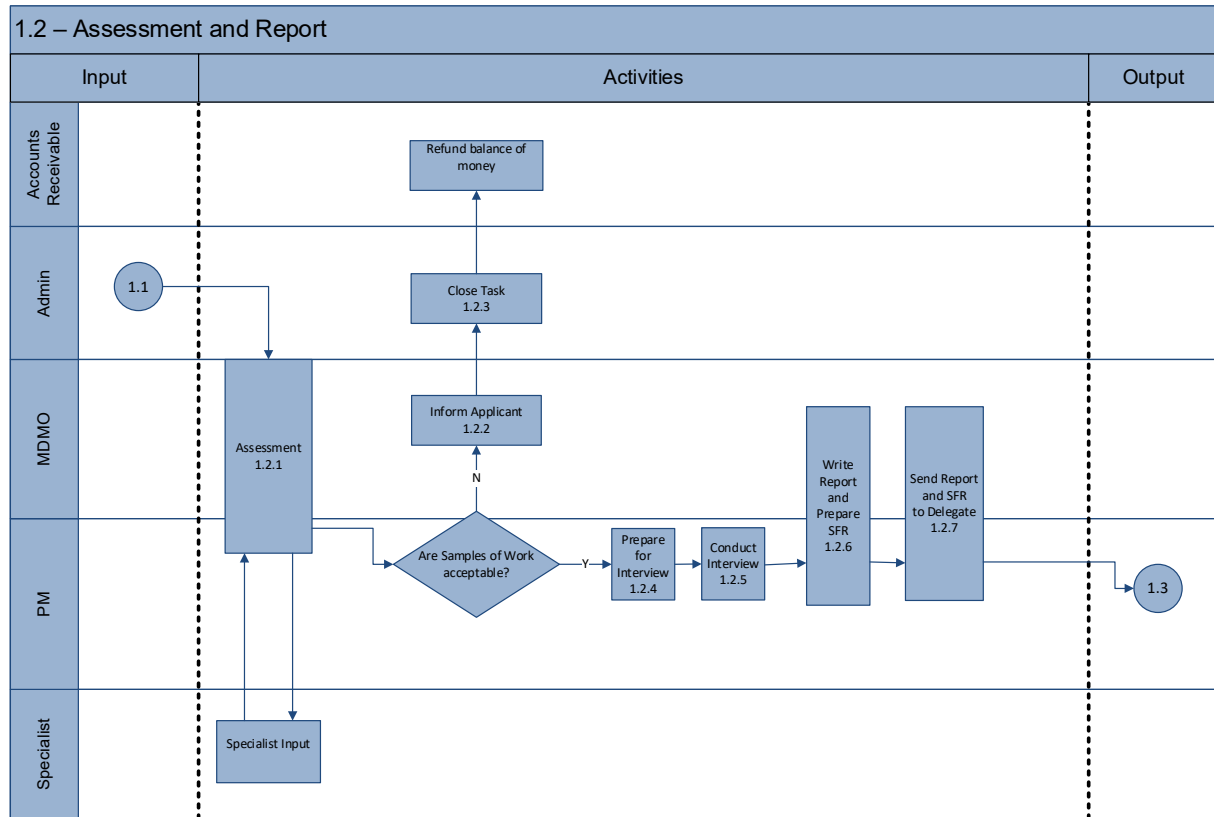


Figure 5 – Assessment and report process map

Activity 1.2.1 Assessment

1. Review application and request draft DAPM and samples of work from the applicant.
2. Review draft DAPM and samples of work.
3. Request specialist input as required.
4. If samples of work are not acceptable proceed to activity 1.2.2 otherwise proceed to activity 1.2.4.

Activity 1.2.2 Inform applicant

1. Refuse application, inform applicant by email, copy to administration, advise administration by email to close task and refund balance of money.

Activity 1.2.3 Close task

1. Close task ID in branch workflow system.
2. Complete form 1152 (credit card refund) or form 1146 (EFT Refund).
3. Forward form to accounts receivable to action and refund balance of money i.e. fee for interview and subsequent administration.
4. Remove task folder for the application from Outlook.

Activity 1.2.4 Prepare for interview

1. Identify members of the Interview team.

2. Discuss interview team selection with the MDMO.
3. Liaise with applicant and team to determine a date for the interview.
4. Send applicant the interview questions or advise him to refer to this manual available on CASA website.
5. Advise applicant of required changes to DAPM.

Activity 1.2.5 Conduct interview

1. Conduct the interview following the interview format (annex A) recording comments and assessments.
2. Assess samples of work and training records if applicable.
3. Advise applicant of required changes to DAPM if not done previously.

Activity 1.2.6 Write report and prepare SFR

1. Prepare report including final recommendation in conjunction with interview team.
2. Consult with the MDMO regarding final recommendation.
3. Prepare the SFR using the standard format.
4. Draft IOA if recommendation is to issue.

Activity 1.2.7 Send report and SFR to delegate

1. Send report, SFR and draft IOA, to delegate for review by attaching the documentation to RMS and providing its reference to delegate.

Review and Print activity steps (1.3)

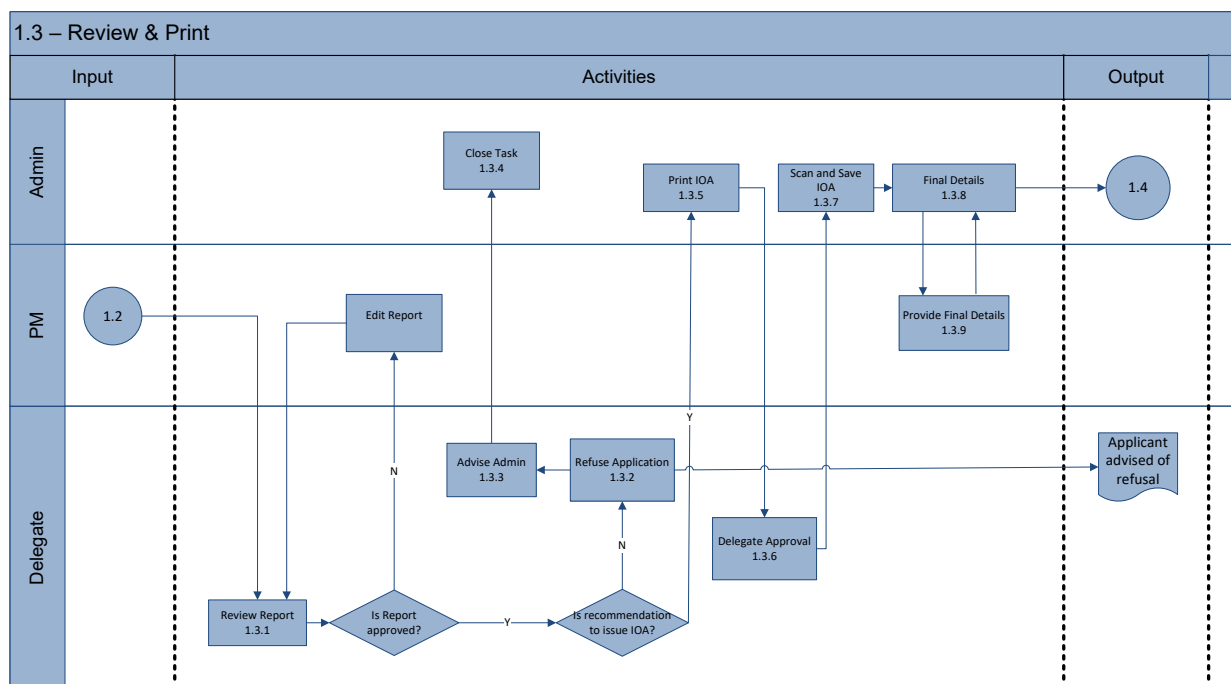


Figure 6 – Review and Print process map

Activity 1.3.1 Review report

1. Delegate reviews recommendation report, SFR and draft IOA. Delegate liaises with PM if edits are required and edits are incorporated.
2. Delegate approves recommendation and signs the SFR.
3. If application for IOA is approved, delegate forwards report, SFR and draft IOA to administration with instruction to issue IOA, proceed to activity 1.3.5. If application for IOA is refused, forward report and SFR to administration, proceed to activity 1.3.2.

Activity 1.3.2 Refuse application

1. PM sends letter/email to applicant advising of refusal to issue an IOA.

Activity 1.3.3 Advise administration

1. PM advises administration by email to close the task.

Activity 1.3.4 Close task

1. RMS all emails, SFR and report.
2. Close task ID in branch workflow system.
3. Remove task folder for the application from Outlook.
4. Process completed.

Activity 1.3.5 Print IOA

1. Receive email from delegate.
2. Open RMS Folder for current year IOAs and note the next sequential number.
3. Insert number in draft IOA, print and check IOA.
4. Forward IOA to delegate for approval, signature and stamp.

Activity 1.3.6 Delegate approval

1. Delegate checks IOA, approves, and signs IOA.
2. Return IOA to administration and they stamp IOA.

Activity 1.3.7 Scan and save IOA

1. Scans signed IOA and save to current year IOAs and applicant's RMS file and enter into EAP.

Activity 1.3.8 Final details

1. Administration forwards scanned copy of signed SFR, signed IOA and Word copy to PM with request for address details and final hours.

Activity 1.3.9 Provide final details

1. PM forwards postal details and total time spent on the task to administration by entering actual time in appropriate column of regulatory fee estimator.

Reconciliation activity steps (1.4)

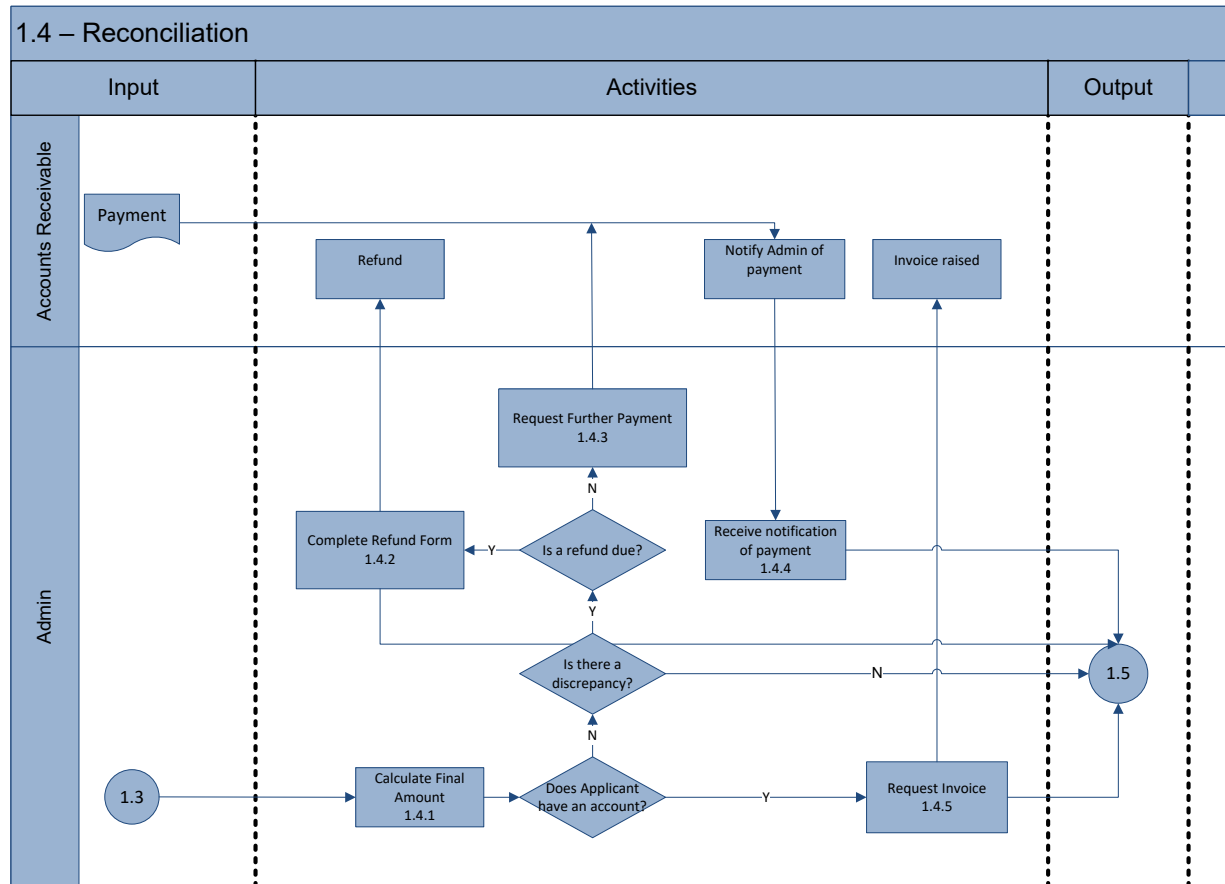


Figure 7 – Reconciliation process map

Activity 1.4.1 Calculate final amount

1. Enter the total final hours (including administration time) into the relevant sections of the regulatory fee estimator.
2. If applicant has an account, proceed to activity 1.4.5.
3. If there is a discrepancy with the estimated cost and a refund is due, proceed to activity 1.4.2 then proceed to process 1.5. If there is a discrepancy with the estimated cost and further payment is due, proceed to activity 1.4.3. If there is no discrepancy, proceed to process 1.5.

Activity 1.4.2 Complete refund form

1. Complete form 1152 (credit card refund) or form 1146 (EFT refund).
Forward form to accounts receivable to action the refund.

Activity 1.4.3 Request further payment

1. Raise another estimate letter for 055 in the regulatory fee estimator based on the final figures calculated in activity 1.4.1.
2. Compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au.

- Do not proceed until notification of payment is received from accounts receivable.

Activity 1.4.4 Receive notification of payment

- Receive notification of payment by email from accounts receivable.
Proceed to process 1.5.

Issue IOA activity steps (1.5)

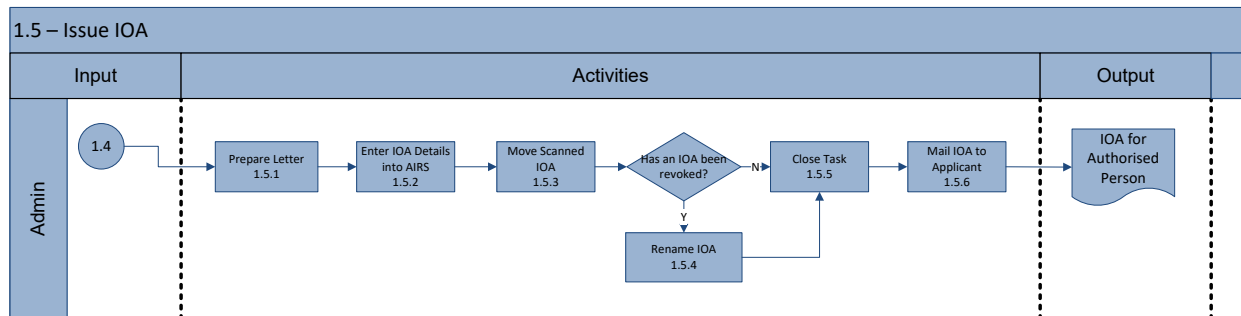


Figure 8 – Issue IOA process map

Activity 1.5.1 Prepare letter

- Prepare an accompanying letter to the IOA holder.

Activity 1.5.2 Enter IOA details in EAP

- Enter IOA Details in EAP as per the process described in chapter 7.

Activity 1.5.3 Move scanned IOA

- If an instrument has been revoked proceed to activity 1.5.4, otherwise proceed to activity 1.5.5.

Activity 1.5.4 Rename IOA

- Locate scanned copy of IOA of revoked instrument in RMS.
- Rename with 'Revoked' included in file name.

Activity 1.5.5 Close task

- Close task ID in branch workflow system and regulatory fee estimator.
- Remove task folder for the application from Outlook.
- RMS all inward and outward correspondence in the relevant RMS file for the task.

Activity 1.5.6 Mail IOA to applicant

- Place original, signed IOA and letter in an envelope and mail to delivery address for applicant.

1.4.2 Turnaround time

- An average time to complete the process from submission of application to sending the IOA is 6 weeks.

1.4.3 Impact

1.4.3.1 Constraints

The following constraints could impact this process:

1. payment within timeframe by applicant
2. available AEB personnel to process the application.

1.4.3.2 Assumptions

The following assumptions are made with respect to this process:

1. prompt payment.
2. DAPM and samples of work supplied and appropriate.

1.4.3.3 Risks and issues

The following risks/issues could impact this process:

1. DAPM and samples of work not sent or inappropriate.

Variation of an IOA (applicant request) process

1.5 Background

1.5.1 Purpose of the variation of an IOA (applicant request) process

To vary an existing regulatory fee estimator on request by an IOA Holder to address specific changes in circumstances. Variations to the IOA can include:

- a) addition of a person
- b) removal of a person
- c) name Change to the Business or the IOA Holder
- d) change to scope
- e) addition of speciality
- f) change to limitations
- g) addition of another authorisation
- h) change to regulations.

1.5.2 Description of the variation of an IOA (applicant request) process

The Variation of an IOA (applicant request) process comprises the submission of an application for variation of an IOA, the assessment of the application and the issue of a new IOA if the application is approved or refusal if the application is refused.

The IOA allows CASA to appoint Authorised persons to carry out design approval functions under the following Civil Aviation Safety Regulations 1998 (CASR):

- a) CASR subpart 21.M - Approval of design of a modification or repair
- b) CASR21.009 - Approval of technical data
- c) CASR21.006A - Approval of changes to aircraft flight manual
- d) CASR21.007 - Approval of defect as a Permissible unserviceability
- e) CASR21.007A - Advice about whether damage is major damage
- f) CASR21.095 - Approval of minor changes to type design
- g) CASR21.120B - Variations of supplemental type certificates.

The variation of the IOA will depend on the applicant's qualifications, experience, and in certain cases, employment arrangements. The variation of an IOA is at the discretion of CASA and will be considered on a case-by-case basis.

The outcome of the process is the variation of the IOA.

1.5.3 Roles, IT systems and artefacts

The following staff have a role in the variation of an IOA (applicant request) process:

- a) The manager, design and manufacturing oversight, the delegate
- b) Project manager - a certification engineer

- c) Suitable administrative staff
- d) accounts receivable.

The following IT systems are used during this process:

- a) EAP
- b) RMS
- c) Branch workflow system
- d) Regulatory fee estimator.
- e) Word and excel

The following artefacts are used during this process:

- a) Design approval procedures manual (DAPM) CASA guidelines for new candidates (annex C)
- b) DAPM guidelines compliance checklist (annex C).

1.5.4 Triggers / inputs

The trigger for this process is the submission of an application by a person seeking a variation to an existing IOA. This is generally by email.

1.5.5 Guides

Guidance for completion of the process can be found in this manual-and in the Legislation described in section 1.1.5 of this manual.

1.5.6 Outputs

For a successful variation, the outputs from this process include the original IOA, an accompanying letter and a receipt for payment.

For an unsuccessful variation, the outputs from this process include a refusal letter or email and a receipt for payment.

1.6 Details of process

1.6.1 Process information

Process Two: Variation of an IOA (applicant request) - high-level

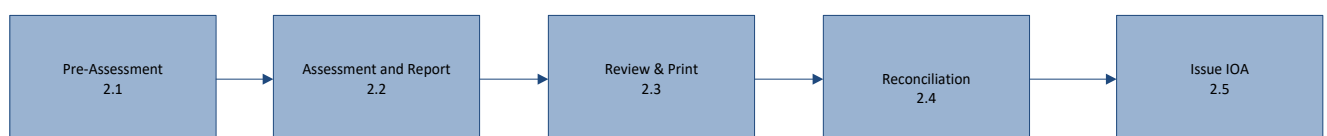


Figure 9 – Process Two – variation of an IOA (applicant request – High-level activity steps

Activity 2.1 Pre-assessment

1. Administration completes the initial processing of the application.
2. The MDMO completes an initial review of the qualifications and experience of the applicant and appoints a PM.

3. The PM makes full review of the qualifications and experience of the applicant, and if satisfactory, completes a cost estimate for the issue of the IOA.
4. The applicant is contacted by the administration staff regarding the estimated cost and request payment, or a Purchase Order is requested.
5. Assessment can begin when payment or receipt of the Purchase Order is confirmed.

Activity 2.2 Assessment and report

1. The PM assesses the draft DAPM and samples of work, if required.

Note: The level of assessment varies depending on the degree of variation to the IOA. Refer to Guidance Table for Assessments of Variations for assistance.

2. If samples of work are required but are not of an acceptable standard, the application is refused.
3. If samples of work are acceptable, the interview is conducted with the applicant, if required as determined in (a).
4. The report including the SFR to issue or not issue the IOA is completed. If the recommendation is to issue, the draft IOA is also completed.
5. The report, SFR and draft IOA, if applicable, are attached to RMS and its reference provided to the delegate for review of the documentation.

Activity 2.3 Review and print

1. The delegate reviews the report, SFR and draft IOA, if applicable. If the recommendation is to not issue an IOA, the applicant is informed by the PM. If the recommendation is to issue an IOA, administration is informed and the SFR is signed. If the recommendation is to not issue an IOA, the applicant is informed by the PM and the task closed.
2. If the recommendation is to issue an IOA, the delegate may direct the administration staff to print and send these documents to him (the delegate) for approval, and signature. The administration staff will place the CASA stamp adjacent to the signature.
3. The applicant's address and total time spent on the job will be requested by the administration staff from the PM.

Activity 2.4 Reconciliation

1. The final amount for the processing of the application is calculated.
2. If there is a discrepancy, further payment is requested or a refund processed. An invoice is raised for the final amount for applicants with an account.

Activity 2.5 Issue IOA

1. Letter for the IOA holder is prepared.
2. Details of the IOA are entered into EAP.
3. The task is closed and all correspondence filed in RMS.
4. IOA and letter is sent to the IOA holder.

Guidance Table: Assessments for variations of IOAs.

Type of Variation	Resume Required?	Samples of Work Required?	Interview to be Conducted?
Addition of person	Yes	Yes	Yes
Removal of person	No	No	No
Name change to the business	No	No	No
Change to scope	To be decided in consultation with MDMO	Yes	To be decided in consultation with MDMO
Addition of speciality	To be decided in consultation with MDMO	Yes	To be decided in consultation with MDMO
Change to limitations	To be decided in consultation with MDMO	Yes	To be decided in consultation with MDMO
Addition of another authorisation	To be decided in consultation with MDMO	To be decided in consultation with MDMO	To be decided in consultation with MDMO

Table 1 – Guidance Table – Assessments for Variations of IOAs

Note: In some cases, the candidates may hold IOA with one organisation and moves over to another, in which case formal assessment may not be required provided there is no substantial change in the authorised functions.

Pre-Assessment activity steps (2.1)

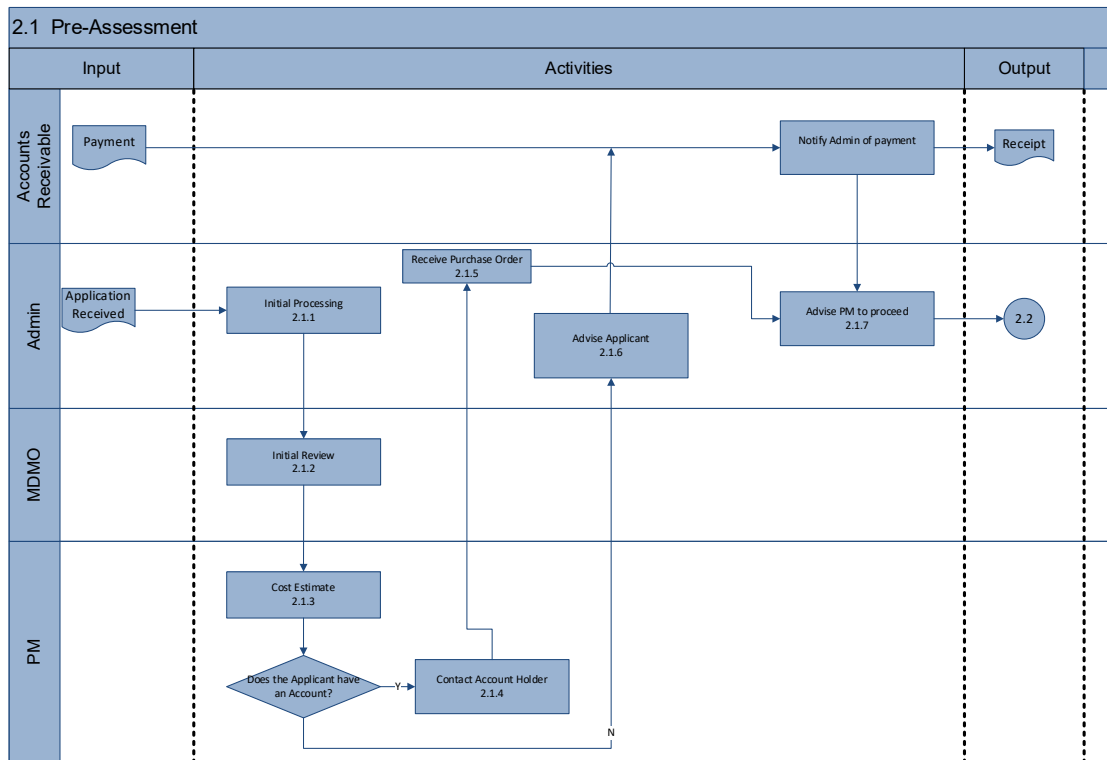


Figure 10 - Pre-Assessment

Activity 2.1.1 Initial processing

1. Receive application at aircraft.certification@casa.gov.au.
2. Check applicant ARN.
3. Acknowledge application by email.
4. Allocate a task ID by registering task in the branch workflow system.
5. RMS application and email to the relevant IOA file held by the design and manufacturing oversight section of AEB.
6. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA Amendment to IOA Aeronautical Engineers Australia 123 RMS 09/123.
7. Forward application, task ID number and RMS reference to MDMO.

Activity 2.1.2 Initial review

1. Review the application and the qualifications and experience of the applicant. If the applicant is not qualified to hold an IOA, refuse application and inform applicant.
2. Ensure task ID has been allocated.
3. Identify project manager.

Activity 2.1.3 Cost estimate

1. Prepare cost estimate for the assessment and issue of an IOA.

2. Send cost estimate (as hours) to administration.
3. If applicant is an account holder, proceed to activity 2.1.4, otherwise proceed to activity 2.1.6.

Activity 2.1.4 Contact account holder

1. Email applicant with estimate and request Purchase Order be sent to administration.

Activity 2.1.5 Receive Purchase Order

1. Receive Purchase Order if applicant is an account holder and proceed to activity 2.1.7.

Activity 2.1.6 Advise applicant

1. Create a new Cost Estimate in the regulatory fee estimator with the task ID number as the Job Ref No.
2. Enter the total estimated hours (including administration time) into the relevant sections of the Cost Estimate.
3. Compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au.
4. Wait for notification by email at aircraft.certification@casa.gov.au from Accounts receivable that payment has been received and a receipt issued.
5. Make entries in the regulatory fee estimator to indicate that payment has been received.

Activity 2.1.7 Advise project manager to proceed

1. Email project manager notifying that payment of the estimate has been received, or a Purchase Order received and that they can now commence work on the task.

Assessment and report activity steps (2.2)

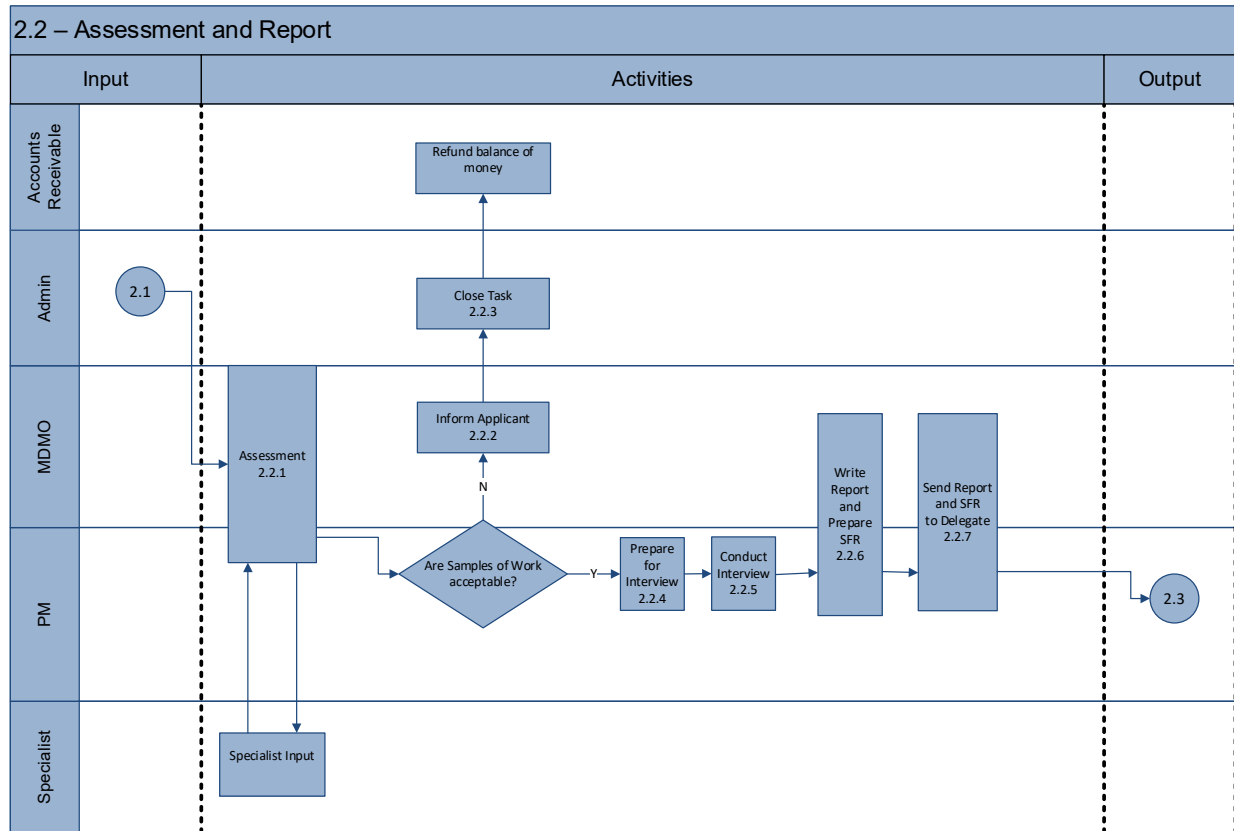


Figure 11 – Assessment and report process map

Activity 2.2.1 Assess draft DAPM and samples of work

1. Review application and request draft DAPM and samples of work from the applicant, if required for the level of variation requested. Refer to the guidance table: assessments for variations of IOAs.
2. Review draft DAPM and samples of work, if required
3. Request specialist input as required.
4. If samples of work are not acceptable proceed to activity 2.2.3 otherwise proceed to activity 2.2.5.

Activity 2.2.2 Inform applicant

1. Refuse application, inform applicant by email, copy to administration, advise administration by email to close task and refund balance of money.

Activity 2.2.3 Close task

1. Close task ID in branch workflow system.
2. Complete form 1152 (Credit Card refund) or form 1146 (EFT Refund).
3. Forward form to Accounts receivable to action and refund balance of money (i.e. for interview and subsequent work).
4. Remove task folder for the application from Outlook.

Activity 2.2.4 Prepare for interview, if required

1. project manager in conjunction with MDMO determines if an interview is required for the level of variation requested.
2. Identify members of the Interview team.
3. Discuss interview details with delegate.
4. Liaise with applicant and team to determine a date for the interview.
5. Send applicant the interview questions.
6. Advise applicant of required changes to DAPM.

Activity 2.2.5 Conduct interview, if required

1. Conduct the interview following the interview format (annex A) recording comments and assessments.
2. Assess samples of work and training records if applicable.
3. Advise applicant of required changes to DAPM if not done previously.

Activity 2.2.6 Write report and prepare SFR

1. Prepare report including final recommendation in conjunction with interview team.
2. Consult with MDMO regarding final recommendation.
3. Prepare SFR using standard format.
4. Draft IOA if recommendation is to issue.

Activity 2.2.7 Send report and SFR to delegate

1. Send report and draft IOA, if applicable, to delegate for review by attaching the documentation to RMS and providing its reference to delegate.

Review and Print activity steps (2.3)

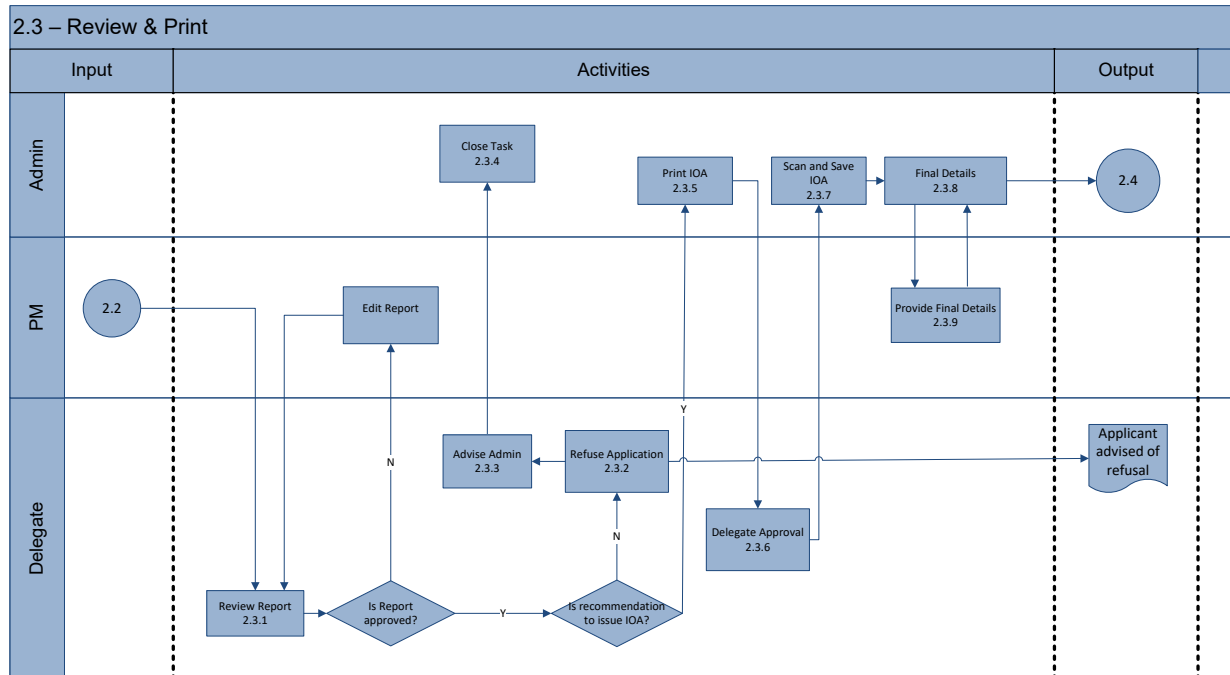


Figure 12 – Review and Print process map

Activity 2.3.1 Review report

1. Delegate reviews recommendation report, SFR and draft IOA. Delegate liaises with project manager if edits are required and edits are incorporated.
2. Delegate approves recommendation and signs the SFR.
3. If application for IOA is approved, delegate forwards report, SFR and draft IOA to administration with instruction to issue IOA, proceed to activity 2.3.5. If application for IOA is refused, forward report and SFR to administration, proceed to activity 2.3.2.

Activity 2.3.2 Refuse application

1. Delegate sends letter/email to applicant advising of refusal to issue an IOA.

Activity 2.3.3 Advise administration

1. project manager advises administration by email to close the task.

Activity 2.3.4 Close task

1. RMS all emails, SFR and report.
2. Close task ID in branch workflow system.
3. Remove task folder for the application from Outlook.
4. Process completed.

Activity 2.3.5 Print IOA

1. Receive email from delegate.
2. Open Folder for current year IOAs and note the next sequential number.

3. Insert number in draft IOA, print and check IOA.
4. Forward IOA to delegate for approval, signature and stamp.

Activity 2.3.6 Delegate approval

1. Delegate checks IOA, approves, signs and stamps IOA.
2. Return IOA to administration.

Activity 2.3.7 Scan and save IOA

1. Scan signed IOA and save to current year IOAs and applicant's RMS file and enter into EAP.

Activity 2.3.8 Final details

1. administration forwards scanned copy of signed SFR, signed IOA and Word copy to project manager with request for address details and final hours.

Activity 2.3.9 Provide final details

1. project manager forwards postal details and final hours to administration.

Reconciliation process activity steps (2.4)

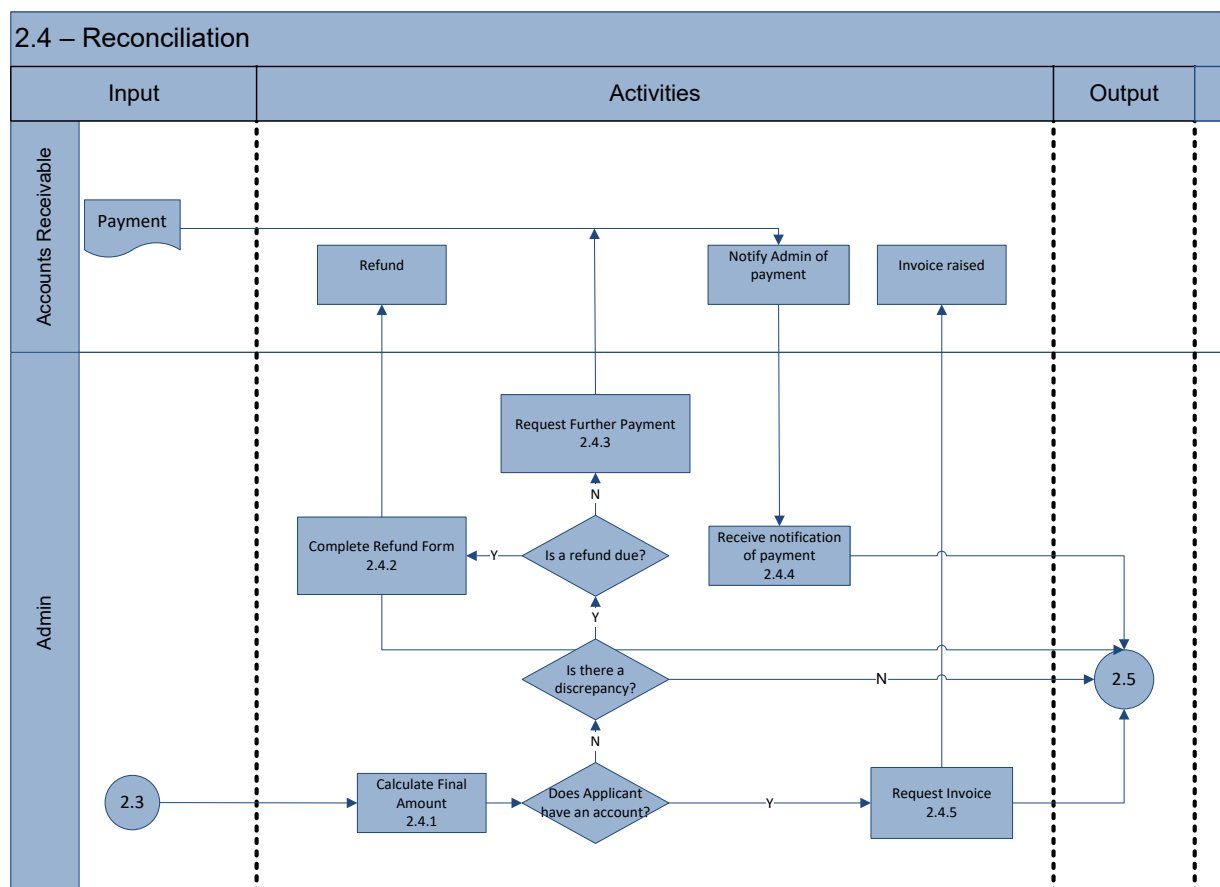


Figure 13 – Reconciliation activity steps

Activity 2.4.1 Calculate final amount

1. Enter the total final hours (including administration time) into the relevant sections of the regulatory fee estimator.
2. If applicant has an account, proceed to activity 2.4.7.
3. If there is a discrepancy with the estimated cost and a refund is due, proceed to activity 2.4.2 then proceed to process 2.5. If there is a discrepancy with the estimated cost and further payment is due, proceed to activity 2.4.3. If there is no discrepancy, proceed to process 2.5.

Activity 2.4.2 Complete refund form

1. Complete form 1152 (Credit Card refund) or form 1146 (EFT Refund).
2. Forward form to Accounts receivable to action and refund money.

Activity 2.4.3 Request further payment

1. Raise another estimate letter in the regulatory fee estimator based on the final figures calculated in activity 2.4.1.
2. Compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au.
3. Do not proceed until notification of payment is received from accounts receivable.

Activity 2.4.4 Receive notification of payment

1. Receive notification of payment by email from accounts receivable.
2. Proceed to process 2.5.

Issue IOA process activity steps (2.5)

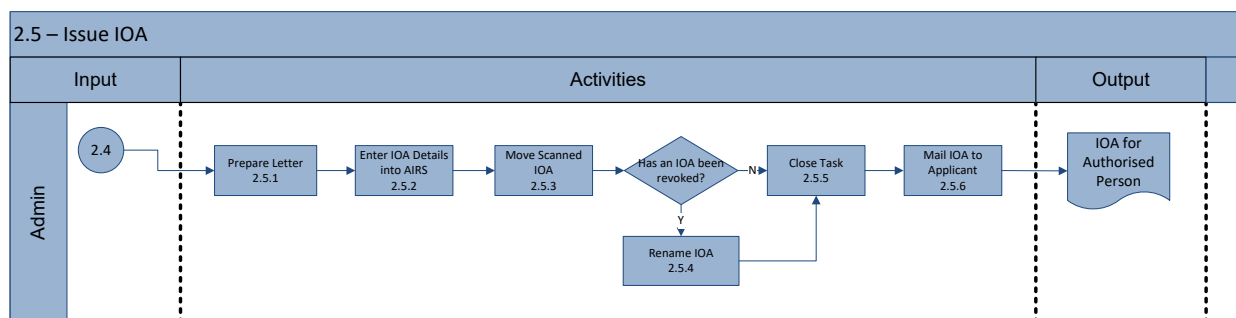


Figure 14 – Issue IOA process map

Activity 2.5.1 Prepare letter

1. Prepare an accompanying letter to the IOA holder.

Activity 2.5.2 Enter IOA details in EAP

1. Enter IOA details in EAP as per the process described in Chapter 7.

Activity 2.5.3 Move scanned IOA

1. If an instrument has been revoked proceed to activity 2.5.4, otherwise proceed to activity 2.5.5.

Activity 2.5.4 Rename IOA

2. Locate scanned copy of IOA of revoked instrument in RMS.
3. Rename with 'Revoked' included in file name.

Activity 2.5.5 Close task

1. Close task ID in branch workflow system and regulatory fee estimator.
2. Remove task folder for the application from Outlook.
3. RMS all inward and outward correspondence in the relevant RMS file for the task.

Activity 2.5.6 Mail IOA to applicant

1. Place original, signed IOA and letter in an envelope and mail to delivery address for applicant.

1.6.2 Turnaround time

An average time to complete the process from submission of application to sending the IOA is 6 weeks. For minor variations such as name change and removal of name from IOA, the average time is two weeks.

1.6.3 Impact

1.6.3.1 Constraints

The following constraints could impact this process:

1. payment within timeframe by applicant
2. available AEB personnel to process the application.

1.6.3.2 Assumptions

The following assumptions are made with respect to this process:

1. prompt payment
2. DAPM and samples of work supplied and appropriate.

1.6.3.3 Risks and Issues

The following risks/issues could impact this process:

1. DAPM and samples of work not sent or inappropriate.

Variation of an IOA (CASA) process

1.7 Background

1.7.1 Purpose of the variation of an IOA (CASA) process

To vary an existing regulatory fee estimator at the instigation of CASA to address specific changes in circumstances.

CASA may initiate changes to the IOAs under the following circumstances (usually as a result of findings from the surveillance process):

- a) the approvals by the authorised person indicate inadequate competence in the speciality and scope of the IOA
- b) in cases where the scope and speciality cannot be substantiated by the documentation and currency of capabilities, variations to the IOAs shall be initiated by CASA
- c) in circumstances where there is lack of cooperation and transparency while carrying out surveillance functions, CASA may initiate IOA variations noting that the tasks performed by the authorised person are CASA functions and not “industry functions.”

As far as practicable, CASA will strive to work cooperatively with the authorised persons, noting that they are performing a CASA function and all CASA actions shall be guided by the notion of “fairness”. Additional considerations as listed in section 1.2.6 are also relevant.

Following the issue of IOA variation, the surveillance program for the authorised person shall be reviewed and the risks re-assessed.

1.7.2 Description of the variation of an IOA (CASA) process

The Variation of an IOA (CASA) process is comprised of assessment of the triggering situation, as described above, decision for action and issue of a varied IOA.

The IOA allows CASA to appoint authorised persons to carry out design approval functions under the following Civil Aviation Safety Regulations (CASR):

- a) CASR subpart 21.M - Approval of design of a modification or repair
- b) CASR 21.009 - Approval of technical data
- c) CASR 21.006A - Approval of changes to aircraft flight manual
- d) CASR 21.007 – Approval of defect as a Permissible unserviceability
- e) CASR 21.007A - Advice about whether damage is major damage
- f) CASR 21.095 - Approval of minor changes to type design
- g) CASR 21.120B - Variations of supplemental type certificates.

The level of variation of the IOA will depend on the triggering situation. The outcome of the process is the appointment of an authorised person with a new IOA incorporating the variations.

1.7.3 Roles, IT systems and artefacts

The following staff have a role in the variation of an IOA (CASA) process:

- a) the MDMO – the delegate

- b) Project Manager - Certification Engineer
- c) suitable administration staff.

The following IT systems are used during this process:

- d) EAP
- e) RMS
- f) Branch workflow system
- g) Regulatory fee estimator
- h) Word and excel.

The following artefacts are used during this process:

- a) DAPM CASA guidelines for new candidates (annex C)
- b) DAPM guidelines compliance checklist (annex C).

1.7.4 Triggers / inputs

The trigger for this process is a situation as described in section 4.1.1. The situation could have surfaced through a scheduled surveillance, incident/accident or by input from field staff.

1.7.5 Guides

Guidance for completion of the process can be found in this manual, and in the Legislation described in section 1.1.5 of this manual.

1.7.6 Outputs

An IOA for the authorised person that incorporates the required changes to scope.

1.8 Details of process

1.8.1 Process information

Process Three: Variation of an IOA (CASA) - high-level activity steps

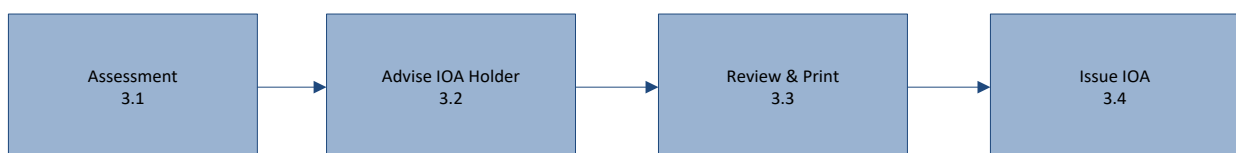


Figure 15 – Process Three Variation of an IOA (CASA) – High-level – process map

Activity 3.1 Assessment Project Team assesses documentation and makes a decision regarding required variation to the IOA.

Activity 3.2 Advise IOA Holder

1. Authorised person is informed of planned action.

Activity 3.3 Review and Print

1. The delegate reviews the report, SFR and draft IOA. administration is informed.
2. The IOA is printed and sent to the delegate for approval, signature and stamp.

Activity 3.4 Issue IOA

1. Letter for the IOA holder is prepared.
2. Details of the IOA are entered into EAP.
3. The task is closed and all correspondence filed in RMS.
4. IOA and letter is sent to the IOA holder.

Assessment process activity steps (3.1)

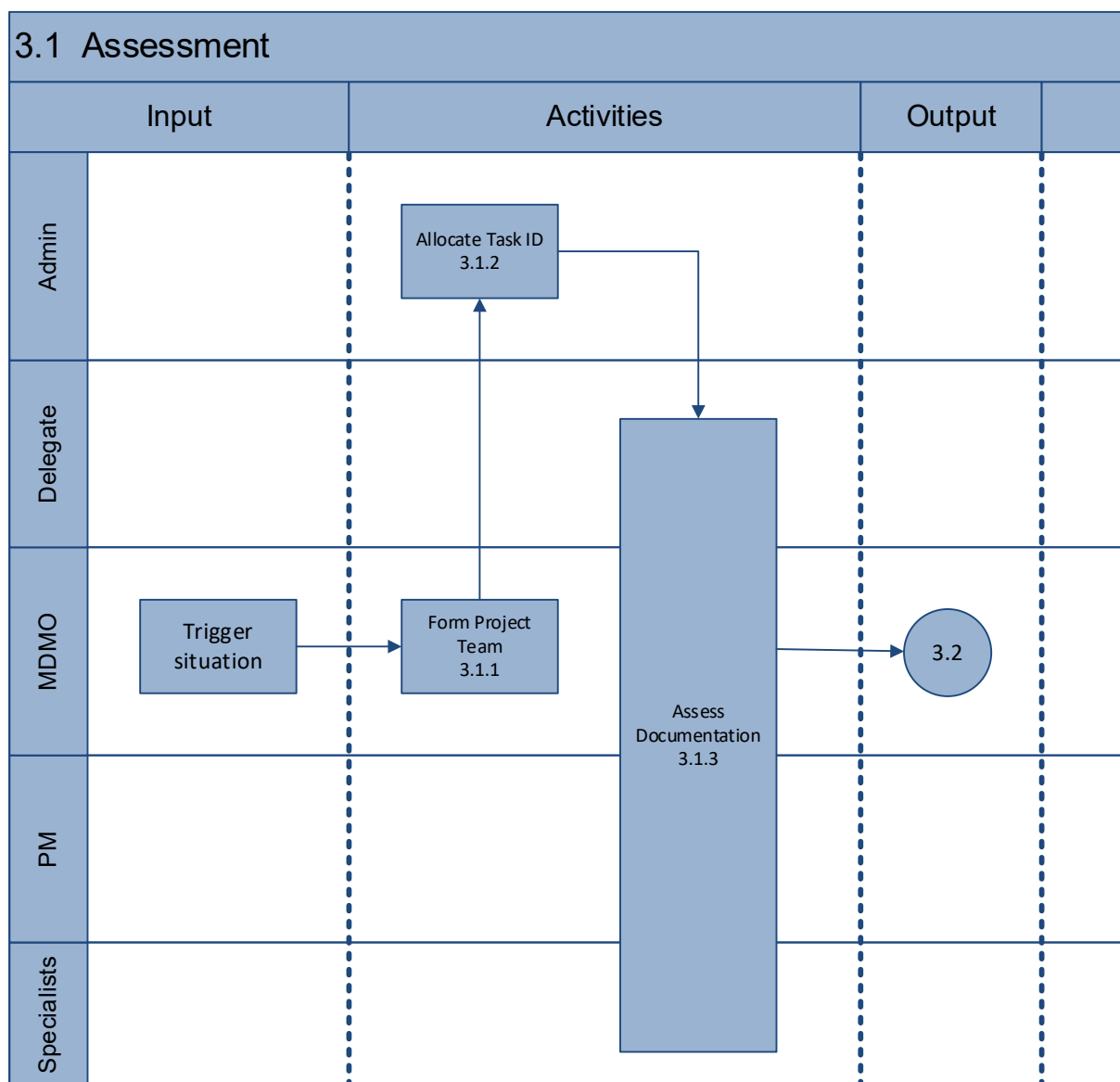


Figure 16 – Assessment process map

Activity 3.1.1 form project team

1. The MDMO forms the Project Team comprising himself, CASA staff of relevant speciality and or Certification Engineer.

Activity 3.1.2 Allocate task ID

1. Allocate a task ID by registering task in the branch workflow system
2. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA Amendment to IOA Aeronautical Engineers Australia 123 RMS 09/123.
3. Forward task ID number and RMS reference to MDMO, Melbourne.

Activity 3.1.3 Assess documentation

1. Assess the documentation.
2. Request documentation from authorised person, if required.
3. Make a decision regarding required variations to IOA on basis of assessment.

Advise IOA holder activity steps (3.2)

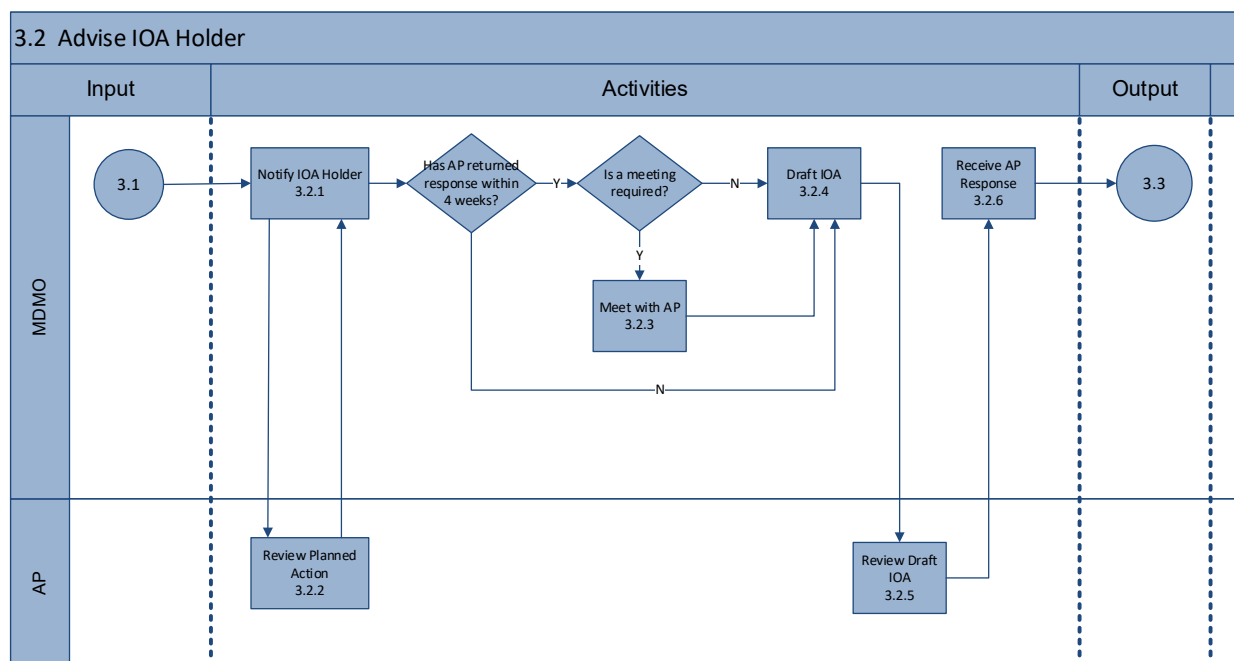


Figure 17 – Advise IOA Holder process map

Activity 3.2.1 Notify IOA holder

1. Contact authorised person and inform them of the planned action. Forward the supporting documentation.

Activity 3.2.2 Review planned action

1. Authorised person reviews planned action and supporting documentation.
2. Authorised person returns response within 4 weeks.

Activity 3.2.3 Meet with authorised person, if required

1. Meet with authorised person, if required, to address the issues.

Activity 3.2.4 Draft IOA

1. Draft details of IOA incorporating required variations.
2. Forward to authorised person for review
3. Inform authorised person of appeal procedures.

Activity 3.2.5 Receive authorised person response

1. Address comments provided by authorised person.

Review and Print activity steps (3.3)

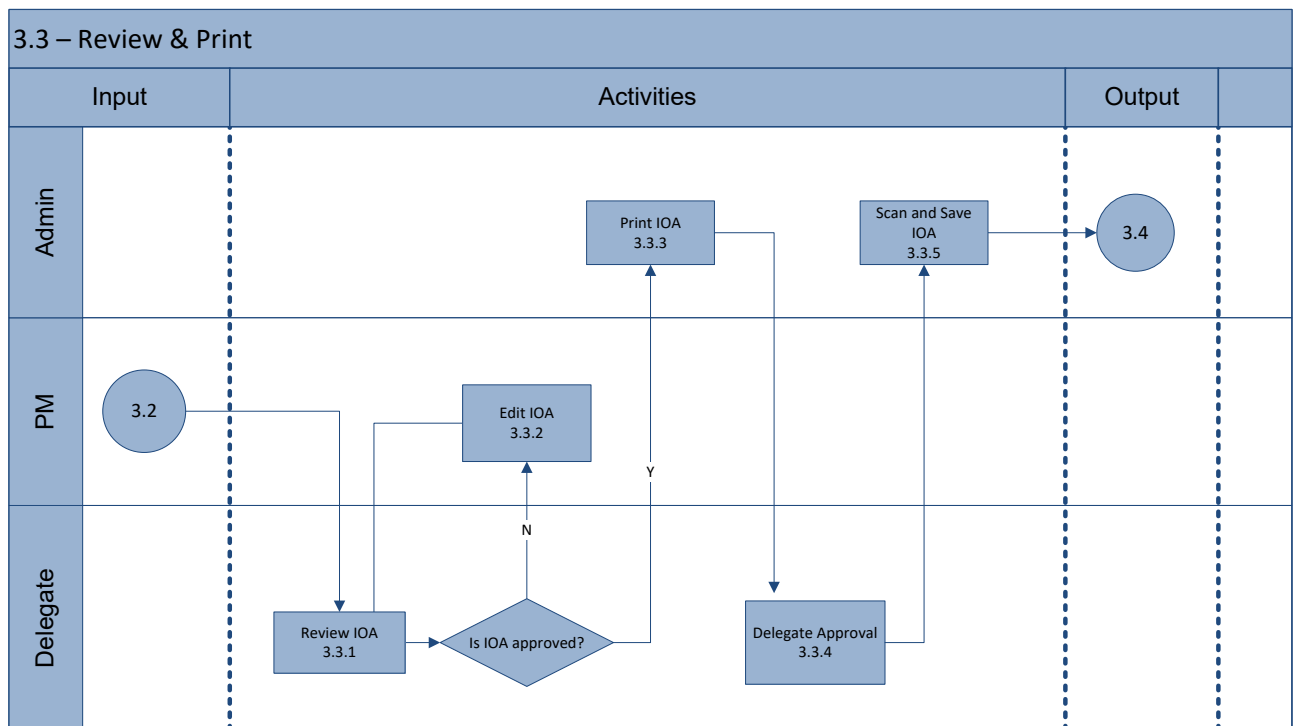


Figure 18 – Review and Print process map

Activity 3.3.1 Review IOA and SFR

1. Delegate reviews draft IOA and SFR.
2. Delegate approves IOA.

Activity 3.3.2 Edit IOA

1. Delegate liaises with PM regarding any edits, if required.
2. Email administration and advise to print.

Activity 3.3.3 Print IOA

1. Receive email from delegate.

2. Open RMS Folder for current year IOAs and note the next sequential number.
3. Insert number in draft IOA, print and check IOA.
4. Forward IOA to delegate for approval, signature and stamp.

Activity 3.3.4 Delegate approval

1. Delegate checks SFR, approves and signs.
2. Delegate checks IOA, approves, signs and stamps IOA.
3. Return IOA and SFR to administration.

Activity 3.3.5 Scan and save IOA

1. Scan signed IOA and save to current year IOAs and applicant's RMS file and enter into EAP.

Issue IOA activity steps (3.4)

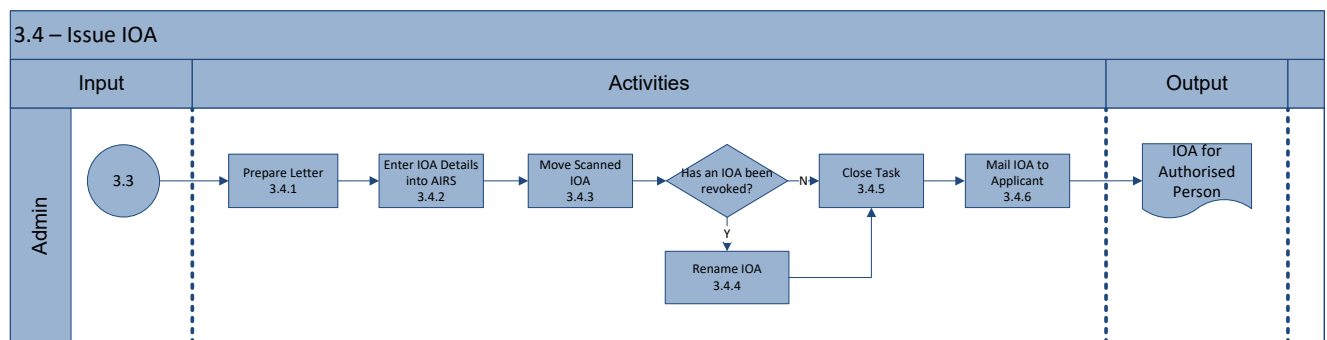


Figure 19 – Issue IOA process map

Activity 3.4.1 Prepare letter

1. Prepare an accompanying letter to the IOA holder.

Activity 3.4.2 Enter IOA details in EAP

1. Enter IOA Details in EAP as per the process described in Chapter 7.

Activity 3.4.3 Move scanned IOA

1. If an instrument has been revoked proceed to activity 3.4.4, otherwise proceed to activity 3.4.5.

Activity 3.4.4 Rename IOA

1. Locate scanned copy of IOA of revoked instrument in RMS.
2. Rename with 'Revoked' included in file name.

Activity 3.4.5 Close task

1. Close task ID in branch workflow system and in regulatory fee estimator.
2. RMS all inward and outward correspondence including the scanned copy of SFR in the relevant RMS file for the task.
3. Remove task folder for the application from Outlook.

Activity 3.4.6 Mail IOA to applicant

1. Place original, signed IOA and letter in an envelope and mail to delivery address for applicant.



1.8.2 Turnaround time

An average time to complete the process from trigger of the process to sending the IOA is 8 weeks.

1.8.3 Impact

1.8.3.1 Constraints

The following constraints could impact this process:

1. available AEB personnel to process the application.

1.8.3.2 Assumptions

The following assumptions are made with respect to this process:

1. authorised person supplies the appropriate documents within specified time frame.

1.8.3.3 Risks and Issues

The following risks/issues could impact this process:

1. documentation is not received or not appropriate litigation.

Re-issue of IOA

1.9 Background

1.9.1 Purpose of the process

To renew IOA to industry personnel to perform some regulatory functions on behalf of CASA, subject to conditions stipulated in the IOA.

IOAs are renewed every two years

1.9.2 Description of the re-issue of an IOA process

The Re-issue of an IOA process comprises the submission for a request for re-issue of an IOA, the assessment of the application and the issue of an IOA if the candidate is qualified to renew and hold an IOA or refusal if the candidate is found to be unsuitable.

This process exists to allow CASA to appoint authorised persons to carry out design approval functions under the following Civil Aviation Safety Regulations (CASR):

- a) CASR subpart 21.M - Approval of design of a modification or repair
- b) CASR 21.009 - Approval of technical data
- c) CASR 21.006A - Approval of changes to aircraft flight manual
- d) CASR 21.007 – Approval of defect as a Permissible unserviceability
- e) CASR 21.007A - Advice about whether damage is major damage
- f) CASR 21.095 - Approval of minor changes to type design
- g) CASR 21.120B - Variations of supplemental type certificates.

The CASR vest specific regulatory powers which include approvals of designs for aircraft and aeronautical products.

The scope of the IOA issued will depend on the applicant's qualifications, experience, and in certain cases, employment arrangements. The scope may be limited to designs to one or more airworthiness standards (e.g. FAR Part 23 or equivalent) or a category of aeronautical products (e.g. piston engines) or a category of systems (e.g. cabin systems).

The issue of an IOA is at the discretion of CASA and will be considered on a case-by-case basis.

The outcome of the process is the appointment of an authorised person.

1.9.3 Roles, IT systems and artefacts

The following staff have a role in the re-issue of an IOA process:

- a) the MDMO – the delegate
- b) Project Manager - Certification Engineer
- c) suitable administration staff
- d) accounts receivable.

The following IT systems are used during this process:

- a) EAP
- b) RMS
- c) Branch workflow system
- d) Regulatory fee estimator
- e) Word and excel

The following artefacts are used during this process:

- a) Design approval procedures manual (DAPM) CASA guidelines for new candidates (annex C)
- b) DAPM guidelines compliance checklist (annex C)

1.9.4 Triggers / inputs

The trigger for this process is the submission of request to renew an IOA by the authorised person. This is generally by email.

1.9.5 Guides

Guidance for completion of the process can be found in this manual and in the legislation described in section 1.1.5 of this manual.

1.9.6 Outputs

For a successful candidate, the outputs from this process include the original IOA, an accompanying letter and a receipt for payment.

For an unsuccessful candidate, the outputs from this process include a refusal letter or email and a receipt for payment.

1.10 Details of process

1.10.1 Process information

Process Four: Re-issue of an IOA - high-level activity steps

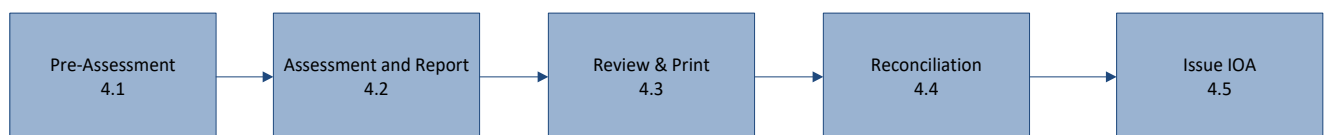


Figure 20 – Re-issue of an IOA – High-level

Activity 4.1 Pre-assessment

1. Administration completes the initial processing of the application.
2. The MDMO completes an initial review of the applicant and appoints a project manager.
3. The project manager makes review of the approval activities and surveillance findings and completes a cost estimate for the issue of the IOA.

4. The applicant is contacted regarding the estimated cost and payment, or a Purchase Order is requested.
5. Assessment can begin when payment or receipt of the Purchase Order is confirmed.

Activity 4.2 Assessment and report

1. The project manager assesses the DAPM, scheduled surveillance reports and activity reports.
2. The report including the SFR to issue or not issue the IOA is completed. If the recommendation is to issue, the draft IOA is also completed.
3. The SFR and draft IOA, if applicable, are filed in RMS and its reference sent to the delegate for review.

Activity 4.3 Review and Print

1. The delegate reviews the SFR and draft IOA, if applicable. If the recommendation is to not issue an IOA, the applicant is informed. If the recommendation is to issue an IOA, administration is informed.
2. The IOA is printed and sent to the delegate for approval, signature and stamp.
3. The applicant's address and final hours are requested from the project manager.

Activity 4.4 Reconciliation

1. The final amount for the processing of the application is calculated.
2. If there is a discrepancy, further payment is requested or a refund processed. An invoice is raised for the final amount for applicants with an account.

Activity 4.5 Issue IOA

1. Letter for the IOA holder is prepared.
2. Details of the IOA are entered into EAP.
3. The task is closed and all correspondence filed on RMS.
4. IOA and letter is sent to the IOA holder.

Pre-Assessment process activity steps (4.1)

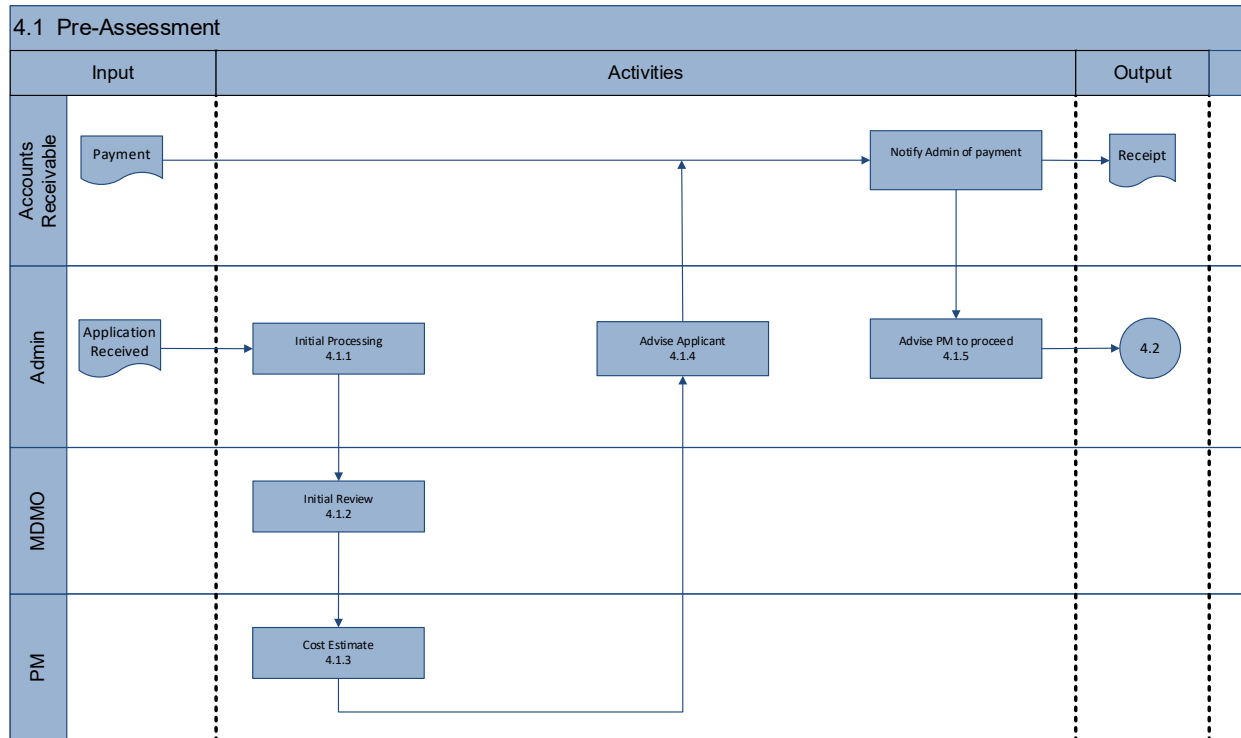


Figure 21 – Pre-assessment process map

Activity 4.1.1 Initial processing

1. Receive application at aircraft.certification@casa.gov.au.
2. Acknowledge application by email.
3. Allocate a task ID by registering task in the Branch workflow system.
4. RMS application and email to the relevant IOA file held by the design and manufacturing oversight section of AEB, Melbourne.
5. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA Amendment to IOA Aeronautical Engineers Australia 123 RMS 09/123.
6. Forward Application, task ID number and RMS reference to MDMO, Melbourne.

Activity 4.1.2 Initial review

1. Review the application.
2. Ensure task ID has been allocated.
3. Identify Project Manager.

Activity 4.1.3 Cost estimate

1. Prepare cost estimate for the assessment and issue of an IOA.
2. Send cost estimate (as hours) to administration.

Activity 4.1.4 Advise applicant

1. Create a new cost estimate in the regulatory fee estimator with the task ID number as the job ref no.
2. Enter the total estimated hours (including administration time) into the relevant sections of the cost estimate.
3. For an applicant without a CASA account, compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au
4. For an applicant with a CASA Account, compile an email with a brief explanation of the costing for the job and request a Purchase Order be sent to accounts receivable.
5. Wait for notification by email at aircraft.certification@casa.gov.au from Accounts receivable that payment has been received and a receipt issued or the Purchase Order has been received.
6. Make entries in the regulatory fee estimator to indicate that payment has been received.

Activity 4.1.5 Advise project manager to proceed

1. Email project manager notifying that payment of the estimate has been received, or a Purchase Order received and that they can now commence work on the task.

Assessment and report activity steps (4.2)

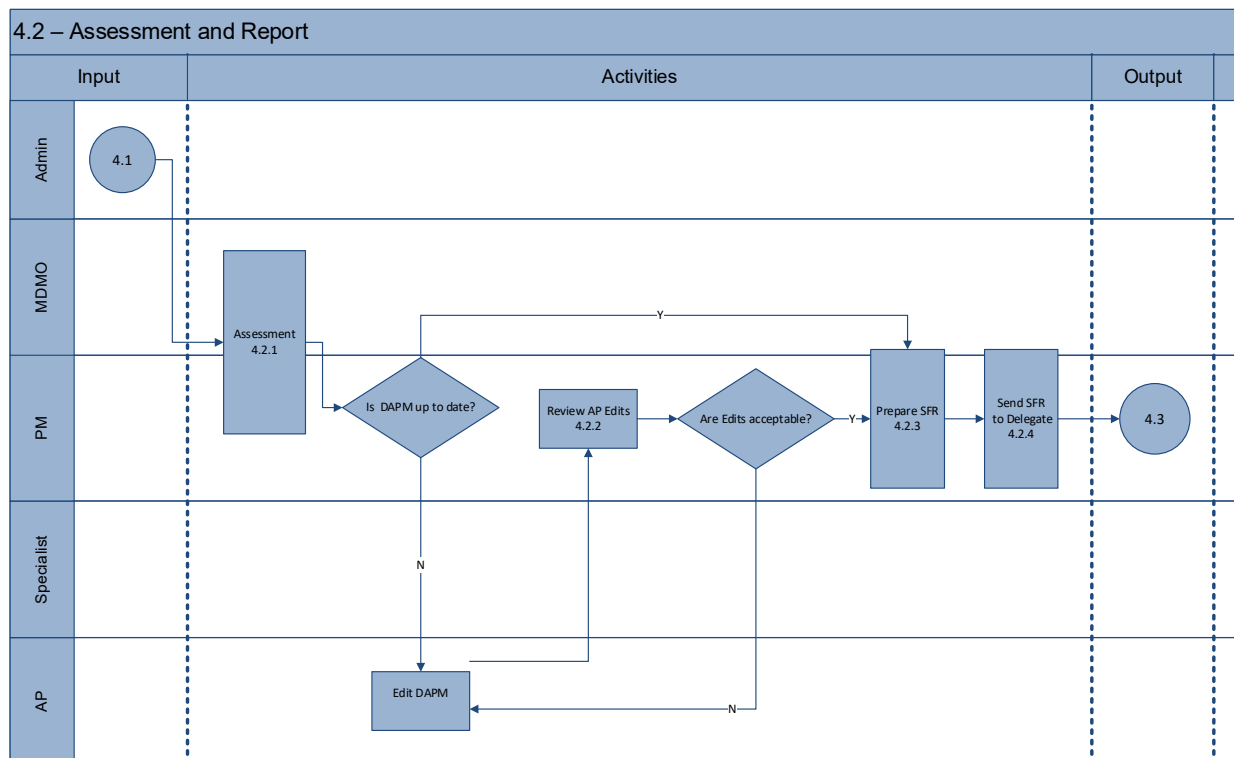


Figure 22 – Assessment and report activity steps process map

Activity 4.2.1 Assessment

1. Review application, DAPM, scheduled surveillance reports and activity reports.

2. Request applicant for updated DAPM, if required. If no changes are required, proceed to activity 4.2.3.

Activity 4.2.2 Review authorised person RDITS

1. Review authorised person edits and ensure changes have been incorporated, as required.

Activity 4.2.3 Prepare SFR

1. Prepare SFR.
2. Consult with MDMO regarding final recommendation.
3. Draft IOA if recommendation is to issue.

Activity 4.2.4 Send SFR to delegate

1. Send SFR and/or draft IOA, as applicable, through RMS to delegate for review.

Review and print activity steps (4.3)

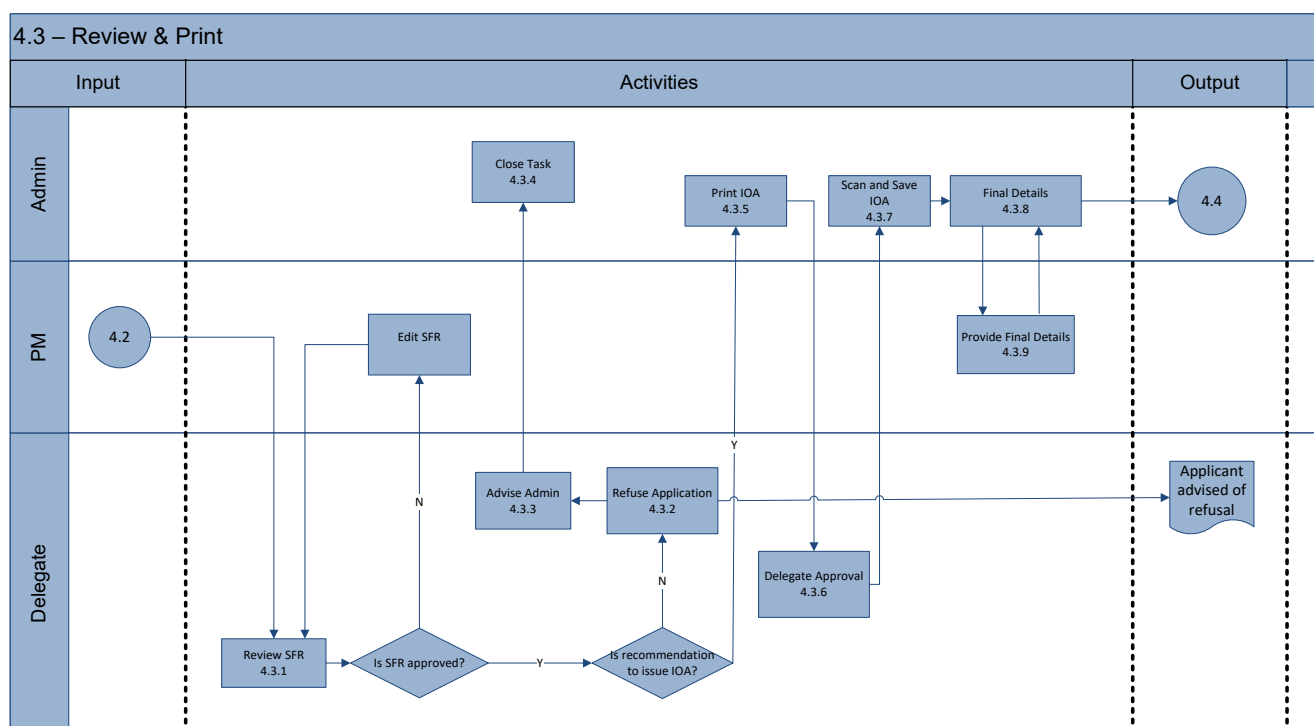


Figure 23 – Review and Print process map

Activity 4.3.1 Review SFR

1. Delegate reviews SFR, if applicable and draft IOA. Delegate liaises with project manager if edits are required and edits are incorporated.
2. Delegate approves SFR.
3. If application for IOA is approved, delegate forwards draft IOA to administration with instruction to issue IOA, proceed to activity 4.3.5. If application for IOA is refused proceed to activity 4.3.2.

Activity 4.3.2 Refuse application

1. Delegate sends letter/email to applicant advising of refusal to issue an IOA.

Activity 4.3.3 Advise administration

1. Delegate forwards SFR to administration and advises administration by email, copy to project manager, to close the task.

Activity 4.3.4 Close task

1. RMS all emails and SFR.
2. Close task ID in branch workflow system.
3. Remove task folder for the application from Outlook.
4. Process completed.

Activity 4.3.5 Print IOA

1. Receive email from delegate.
2. Open RMS folder for current year IOAs and note the next sequential number.
3. Insert number in draft IOA, print and check IOA.

Forward IOA to delegate for approval, signature and stamp.

Activity 4.3.6 Delegate approval

1. Delegate checks IOA, approves, signs and stamps IOA.
2. Return IOA to administration.

Activity 4.3.7 Scan and Save IOA

1. Scan signed IOA and save to current year IOAs and applicant's RMS file and enter into EAP.

Activity 4.3.8 Final details

1. Administration forwards scanned copy of signed IOA, word copy of IOA and scanned copy of SFR to delegations project manager with request for address details and final hours.

Activity 4.3.9 Provide final details

1. project manager forwards postal details and final hours to administration.

Reconciliation process activity steps (4.4)

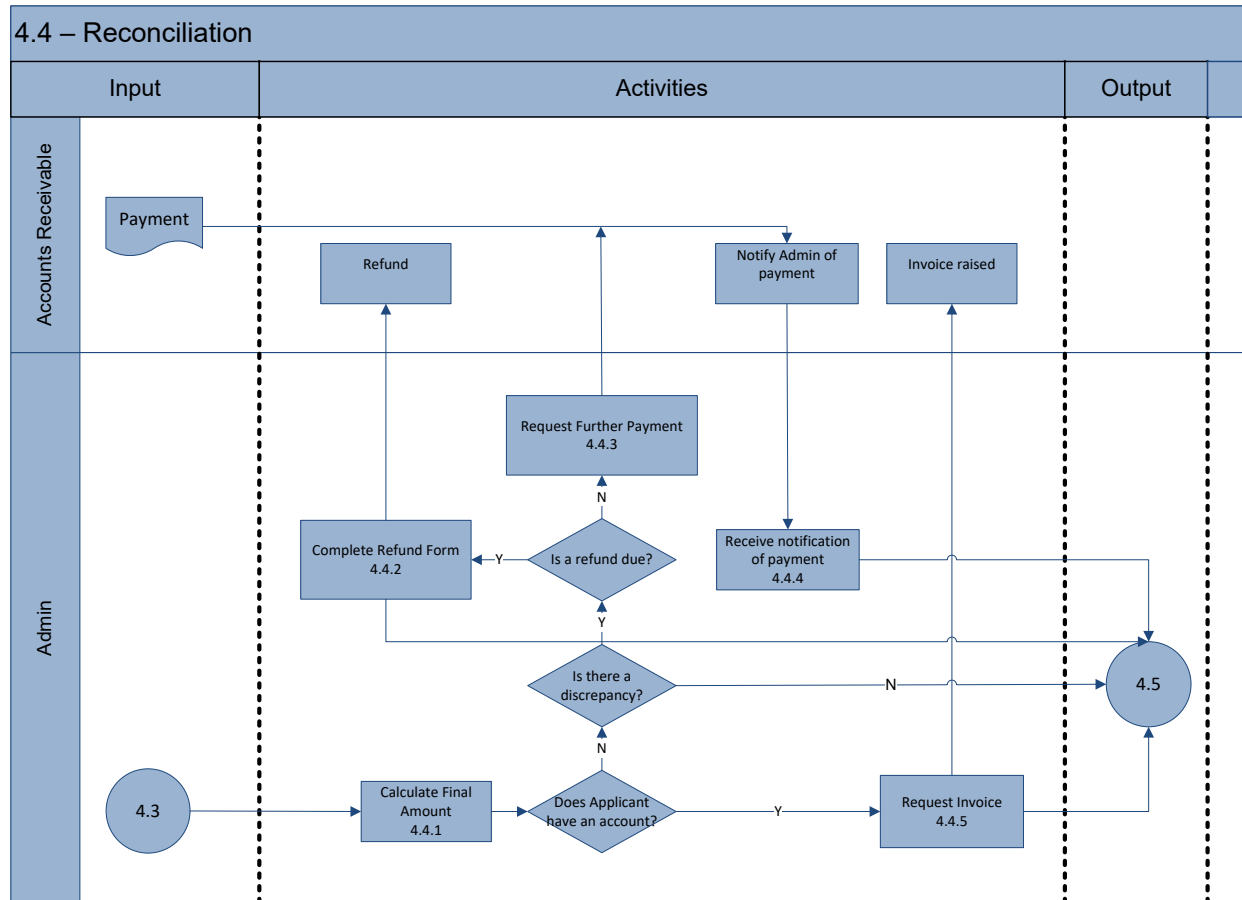


Figure 24 – Reconciliation process map

Activity 4.4.1 Calculate Final Amount

1. Enter the total final hours (including administration time) into the relevant sections of the regulatory fee estimator.
2. If applicant has an account, proceed to activity 4.4.5.
3. If there is a discrepancy with the estimated cost and a refund is due, proceed to activity 4.4.2 then proceed to process 4.5. If there is a discrepancy with the estimated cost and further payment is due, proceed to activity 4.4.3. If there is no discrepancy, proceed to process 4.5.

Activity 4.4.2 Complete Refund form

1. Complete form 1152 (Credit Card refund) or form 1146 (EFT Refund).
2. Forward form to Accounts receivable to action the refund.

Activity 4.4.3 Request further payment

1. Raise another estimate letter in the regulatory fee estimator based on the final figures calculated in activity 4.4.1.
2. Compile an email with a brief explanation of the costing for the job and attach the relevant estimate letter from the regulatory fee estimator. Email to the applicant and CC accounts.receivable@casa.gov.au.

3. Do not proceed until notification of payment is received form accounts receivable.

Activity 4.4.4 Receive notification of payment

1. Receive notification of payment by email from accounts receivable.
2. Proceed to process 4.5.

Issue IOA activity steps (4.5)

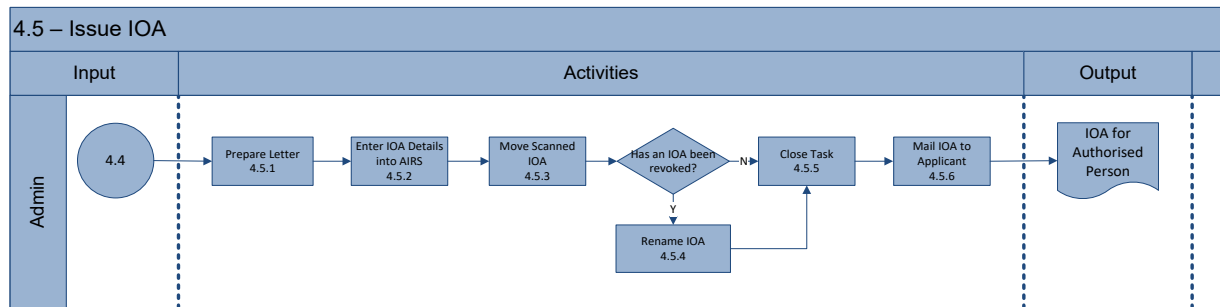


Figure 25 – Issue IOA process map

Activity 4.5.1 Prepare letter

1. Prepare an accompanying letter to the IOA holder.

Activity 4.5.2 Enter IOA details in EAP

1. Enter IOA Details in EAP as per the process described in chapter 7.

Activity 4.5.3 Move ccanned IOA

1. If an instrument has been revoked proceed to activity 4.5.4, otherwise proceed to activity 4.5.5.

Activity 4.5.4 Rename IOA

1. Locate scanned copy of IOA of revoked instrument in RMS.
2. Rename with 'revoked' included in file name.

Activity 4.5.5 Close task

1. Close task ID in branch workflow system and in regulatory fee estimator.
2. Remove task folder for the application from Outlook.
3. RMS all inward and outward correspondence in the relevant RMS file for the task.

Activity 4.5.6 Mail IOA to applicant

1. Place original, signed IOA and letter in an envelope and mail to delivery address for applicant.

1.10.2 Turn-around time

1. An average time to complete the process from submission of application to sending the IOA is 3 weeks.

1.10.3 Impact

1.10.3.1 Constraints

The following constraints could impact this process:

1. payment within timeframe by applicant
2. available AEB personnel to process the application.

1.10.3.2 Assumptions

The following assumptions are made with respect to this process:

1. prompt payment
2. all required documents available.

1.10.3.3 Risks and issues

The following risks/issues could impact this process:

1. required documents not available
2. NCNs arising from surveillance are not acquitted by applicant.

Cancellation of IOA

1.11 Background

1.11.1 Purpose of the cancellation of an IOA process

To cancel an IOA where there is a documented unsafe condition associated with the activities of the authorised person, or there is a gross or repeated violation of the conditions associated with the IOA or non-compliance with the CASR.

The IOA may also be cancelled at the request of the authorised person or the relevant organisation. Cancelled IOAs may be re-issued at the discretion of the relevant delegate.

1.11.2 Description of the cancellation of an IOA process

1.11.2.1 Cancellation at request of IOAH

The cancellation at request of IOAH process comprises the submission of a request to cancel an IOA, acknowledgement of request and updating EAP.

The outcome of the process is an acknowledging email to authorised person.

1.11.2.2 Cancellation instigated by CASA

The Cancellation Instigated by CASA process is triggered by adverse circumstance as indicated above and then comprises review of documentation, enforcement action, legal opinion from LARPIS, design of a cancellation procedure to suit the specific situation following legal recommendations, advise the authorised person and update EAP.

This process exists to allow CASA to cancel an IOA where the authorised person is no longer deemed eligible or suitable to hold the IOA.

The outcome of the process is a cancellation notice to the authorised person.

The process uses EAP, RMS, enforcement manual, branch workflow system, word and excel.

1.11.2.3 Governance

The MDMO, the delegate approves the cancellation of an IOA in consultation with CLARPIS through the coordinated enforcement process.

1.11.3 Roles, IT systems and artefacts

The following staff have a role in the cancellation at request of IOAH process:

- a) the MDMO, a delegate
- b) project manager – a certification engineer
- c) administration.

The following staff have a role in the Cancellation at Instigation of CASA process:

- a) the MDMO, a delegate
- b) project manager – a certification engineer
- c) legal section

- d) administration.

The following IT systems are used during this process:

- a) EAP
- b) RMS
- c) EICMS
- d) branch workflow system
- e) word and excel
- f) EICMS.

The following artefacts are used during this process:

- a) DAPM, regulatory fee estimator,
- b) surveillance report
- c) surveillance reports from other CASA areas
- d) accident or incident reports.
- e) enforcement manual

1.11.4 Triggers / inputs

The trigger for this process is either a request to cancel an IOA by the authorised person or a situation as described in section 6.1.1. Evidence of such a situation could have surfaced through an incident, an accident, a scheduled surveillance, field officer input, a special surveillance or whistle-blower information.

1.11.5 Guides

Guidance for completion of the process can be found in this manual and in the Legislation described in section 1.1.5 of this manual.

1.11.6 Outputs

Cancellation of the IOA and a letter of notification to the IOAH where the cancellation has been at CASA's instigation.

1.12 Details of process

1.12.1 Process information

Process five: Cancellation at request of IOAH activity steps

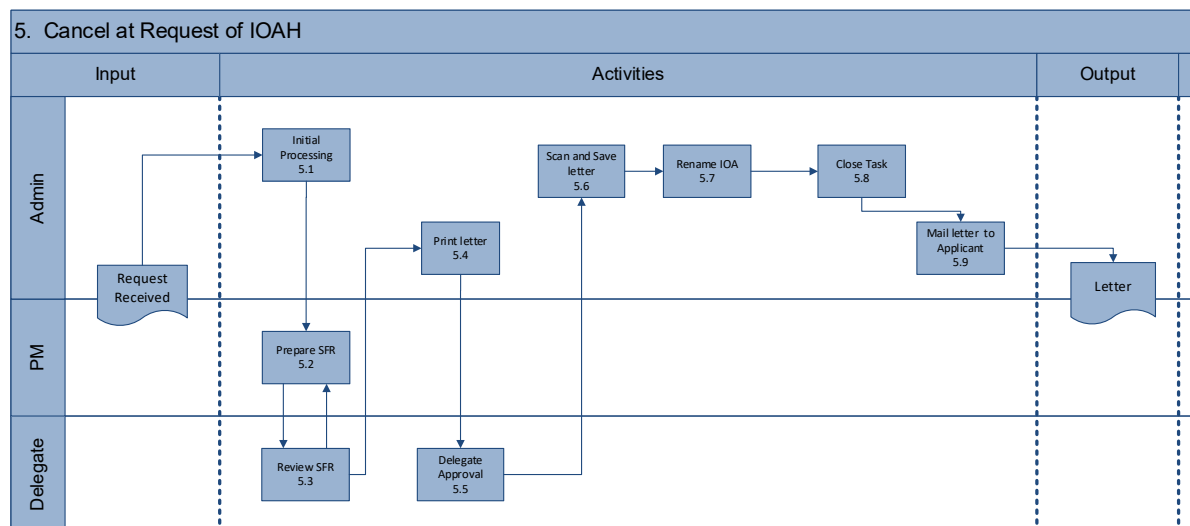


Figure 26 – Cancel at request of IOAH process map

Activity 5.1 Initial processing

1. Receive application at aircraft.certification@casa.gov.au.
2. Acknowledge application by email.
3. Allocate a task ID by registering task in the branch workflow system.
4. RMS application and email to the relevant IOA file held by the Design and Manufacturing Oversight, AEB in Melbourne.
5. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA cancellation to IOA Aeronautical Engineers Australia 123 RMS 09/123.
6. Forward application, task ID number and RMS reference to MDMO, Melbourne.
7. MDMO appoints the project manager.

Activity 5.2 Prepare SFR

1. Project manager prepares SFR.
2. Drafts IOA cancellation letter.
3. Sends SFR and draft cancellation letter through RMS to delegate for review.

Activity 5.3 Review SFR

1. Delegate reviews SFR and draft cancellation letter. Delegate liaises with project manager if edits are required and edits are incorporated.
2. Delegate approves SFR.

3. Delegate forwards cancellation letter to administration with instruction to issue the letter.

Activity 5.4 Print letter

1. Receive email from Delegate.
2. Forward letter to delegate for approval and signature.

Activity 5.5 Delegate approval

1. Delegate checks letter, approves and signs.
2. Return letter to administration.

Activity 5.6 Scan and save letter

1. Scan signed letter and save to applicant's RMS file.

Activity 5.7 Rename IOA

1. Locate scanned copy of IOA of revoked instrument in RMS.
2. Rename with 'Revoked' included in file name.

Activity 5.8 Close task

1. Close task ID in branch workflow system.
2. Remove task folder for the application from Outlook.
3. RMS all inward and outward correspondence in the relevant RMS file for the task.

Activity 5.9 Mail cancellation letter to applicant

1. Place signed IOA cancellation letter in an envelope and mail to delivery address of applicant.

Process Six: Cancellation at instigation of CASA activity steps

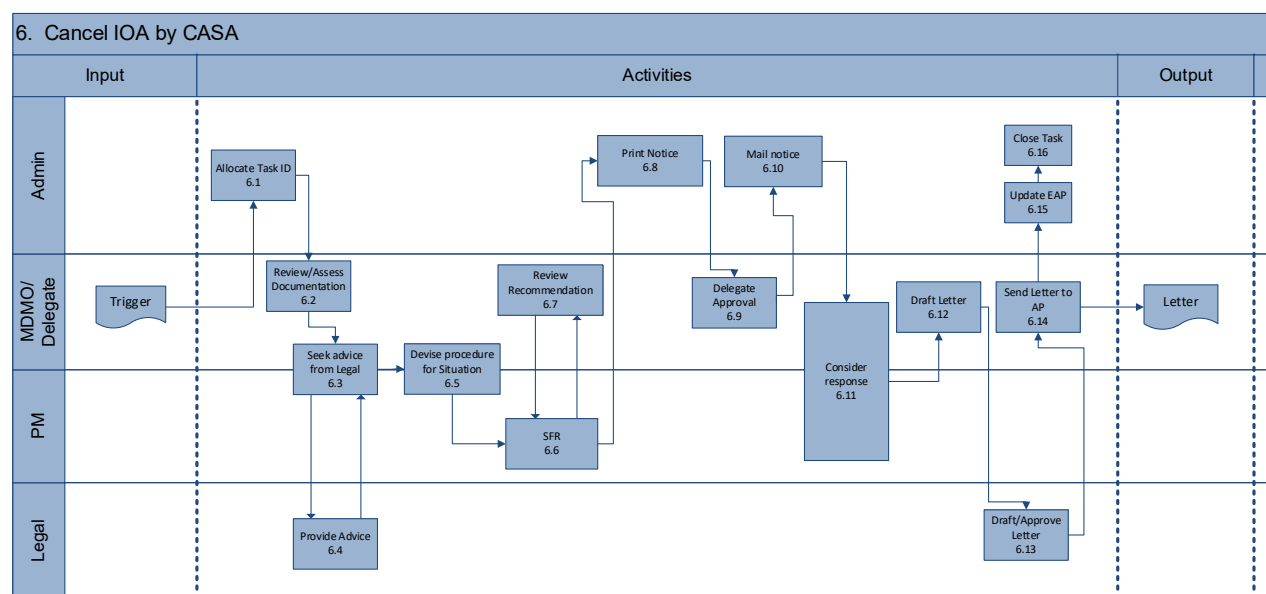


Figure 27 – Cancel IOA by CASA – H\high-level process map

Activity 6.1 Allocate task ID

1. Allocate a task ID by registering task in the branch workflow system.
2. RMS email from MDMO to the relevant IOA file held by the design and manufacturing section of AEB in Melbourne.
3. Create a folder in Outlook to capture all incoming and outgoing emails. Name of folder to incorporate a brief summary of job e.g. task ID 947 IOA Cancellation to IOA Aeronautical Engineers Australia 123 RMS 09/123.
4. Forward task ID number and RMS reference to MDMO, Melbourne.

Activity 6.2 Review/assess documentation

1. MDMO reviews all information and documentation pertaining to the situation, including past surveillance reports, incident or accident reports. If there is a case to proceed, appoints a project manager to process this cancellation.

Activity 6.3 Seek advice from legal

1. project manager together with MDMO refers the matter through EICMS for a coordinated enforcement discussion with LARPIS regarding the basis of cancelling the IOA.

Activity 6.4 Provide advice

1. LARPIS assesses situation and documentation and provides an opinion on whether there is a case to cancel the IOA.

Activity 6.5 Devise procedure for situation

1. Project manager together with MDMO follow legal recommendations and devise a plan for proceeding for the particular situation.

Activity 6.6 SFR

1. Project manager determine the way forward and draft an SFR.
2. Draft a notice of proposed action.
3. Forward SFR and notice of proposed action to delegate for review.

Activity 6.7 Review recommendation

1. Delegate reviews SFR and notice of proposed action. Delegate liaises with project manager for any edits.
2. MDMO sign the SFR and notice of proposed action and send it to administration.

Activity 6.8 Print notice of proposed action

1. Receive email from delegate.
2. Forward notice of proposed action to delegate for approval and signature.

Activity 6.9 Delegate approval

1. Delegate checks notice of proposed action, approves and signs.
2. Return notice of proposed action to administration.

Activity 6.10 Mail notice of proposed action to authorised person

1. Place signed notice of proposed action and send to the authorised person.
2. Advise authorised person of the date a response is required (e.g. 21 days).

Activity 6.11 Consider response

1. Project manager in consultation with MDMO and legal, consider response from authorised person and address any issues.
2. If decision is to cancel IOA, proceed to activity 6.12. If decision is to cease proceedings, advise authorised person of decision by email.

Activity 6.12 Draft letter

1. MDMO drafts letter regarding cancellation of IOA and forward legal for approval. Alternatively request Legal to draft the letter.

Activity 6.13 Draft or approve letter

1. Legal drafts letter advising authorised person of cancellation of IOA, or approves letter drafted by MDMO.
2. Provide letter to administration.

Activity 6.14 Send letter

1. Send letter to authorised person.
2. RMS scanned copy of letter.

Activity 6.15 Update EAP

1. Retrieve IOA using the permission number
2. Change the status to cancelled.
3. Add a file note.

Activity 6.16 Close task

1. Close task ID in branch workflow system
2. Remove task folder for the application from Outlook.
3. RMS all inward and outward correspondence in the relevant RMS file for the task.

1.12.2 Impact

1.12.2.1 Constraints

The following constraints could impact this process:

1. available AEB personnel to process the application
2. Legal timeframes.

1.12.2.2 Risks and issues

The following risks/issues could impact this process:

1. litigation instigated the authorised person.



Administration Instructions

1.13 Receipt of application

1. An IOA application is received via aircraft.certification@casa.gov.au
2. The business support officer (BSO) assigns the application a project number using the MCNTO Project database via Citrix Receiver.
 - Click “add new project” A task ID number is generated.
 - Complete details within data base.
3. The BSO emails the MDMO for allocation of IOA application.
4. In body of email provide the following:
 - Name of applicant.
 - Task ID number.
 - ARN number.
 - Record Management System (RMS) number.
5. In Subject Title of email write:
 - Task ID.
 - Description of job.
 - Old IOA details.
 - RMS details.
 - e.g. task ID 3067 IOA Re-issue of Sky traders instrument AEB 14/023 TRIM EF6224-2.
6. Create a sub-folder in the aircraft certification mailbox with same details. Move all emails relating to IOA application into subfolder in aircraft certification mailbox.
7. The BSO initiates cost recovery action.

1.14 Cost recovery

1. The BSO in conjunction with the project manager is to raise an excel estimator spread sheet and include an estimate of time taken to perform the task. This spread sheet is to be forwarded to the branch cost recovery administrator (CRA) for processing.
2. Information in relation to CASA’s cost recovery process (including cost recovery guidelines, dossier, civil aviation (fees) regulations 1995 and the procedure as to how to use the fee estimator) is located at the following link [CASA cost recovery process. Fees and charges | Civil Aviation Safety Authority \(casa.gov.au\)](#)
3. The CRA initiates cost recovery action by raising a cost estimate and emailing the estimate to the applicant.

Note: The estimate is only valid for 30 days. An applicant must send the necessary documentation and the required payment and/or purchase order (if applicable) as acceptance. If the applicant withdraws the application, or the application applied for is refused by a CASA delegate, or the job is closed due to lack of documentation or response to CASA’s requests for information, the

Civil Aviation (Fees) Regulations 1995 do not exempt the applicant from paying the costs incurred by CASA for the processing and considering of the application.

4. The applicant accepts the cost estimate and sends payment details to the aircraft.certification@casa.gov.au email address.
5. The CRA is to send the applicant's payment details to accounts receivable. When processed, accounts receivable sends the tax invoice/receipt to the applicant cc: aircraft.certification@casa.gov.au.
6. If the applicant has a line of credit with CASA, the applicant should provide a purchase order. When this task is reconciled in the estimator, form 1152 will request an invoice be raised. The CRA will raise an invoice using FMIS. The invoice will be sent to accounts receivable team for processing.
7. The CRA is to email the project manager when payment has been processed or a purchase order is received so that they can commence work on the task.

1.15 Processing of IOA and SFR

1. IOA comes in from project manager for print and sign by the delegate.
2. Open word document, add the next IOA sequence number (you can check the last IOA numbering via this folder W:\AEB\landCA\CERT\IOAs\Word Docs\Year).
3. Add the date of signature under the signature block.
4. Add the expiry date which is two years minus one day (e.g. issue date: 11/7/16, expiry date: 10/7/18).
5. Save IOA W:\AEB\landCA\CERT\IOAs\Word Docs (under the correct year).
6. Search for expired IOA. Annotate "expired": next to old IOA in W:\AEB\landCA\CERT\IOAs\Word Docs.
7. Print IOA on certificate paper.
 - Page 1 with top and bottom swirl cert. paper.
 - Page 2 with bottom swirl cert. paper.
8. Print SFR – trimmed into IOA file.
9. The delegate will need to sign the following:
 - SFR - at the back of the document above their signature block.
 - IOA above their signature block on page 1 (and stamp) and initial at the bottom right of the following page/s.
10. When the IOA and SFR are signed scan the documents and save under the following:
 - W:\AEB\landCA\CERT\IOAs\Word Docs.
 - W:\AEB\landCA\CERT\IOAs\SFR.
 - W:\AEB\landCA\CERT\IOAs\PDF.
 - RMS F13/7474 (correct sub folder).
 - Task ID RMS folder.

11. Email the project manager the following:
 - Sign copy of the IOA – pdf.
 - Word copy of the IOA.
 - Sign copy of SFR.
12. Email the applicant a copy of the signed IOA and cc the project manager and post them the original copy with a cover letter which lives here:
W:\AEB\landCA\CERT\IOAs.
13. Email the project manager if they would like you to close this IOA task.
14. The Project Manager is to email the CRA advising that the job is completed. This email is to include the excel estimator spread sheet with the actual hours fields populated.
15. The CRA is to reconcile the job in the estimator and notify the BSO to close the task.
16. The BSO is to:
 - Close off the task in the MCNTO projects database.
 - Check that all items with the task folder in Outlook have been trimmed and then delete the folder.

1.16 Update in EAP

1. Open up EAP via Microsoft start up icon – EAP8.
2. Click EAP-PROD-CLIENT. Log in with CASA login and password.
3. Click on the OAS bubble.

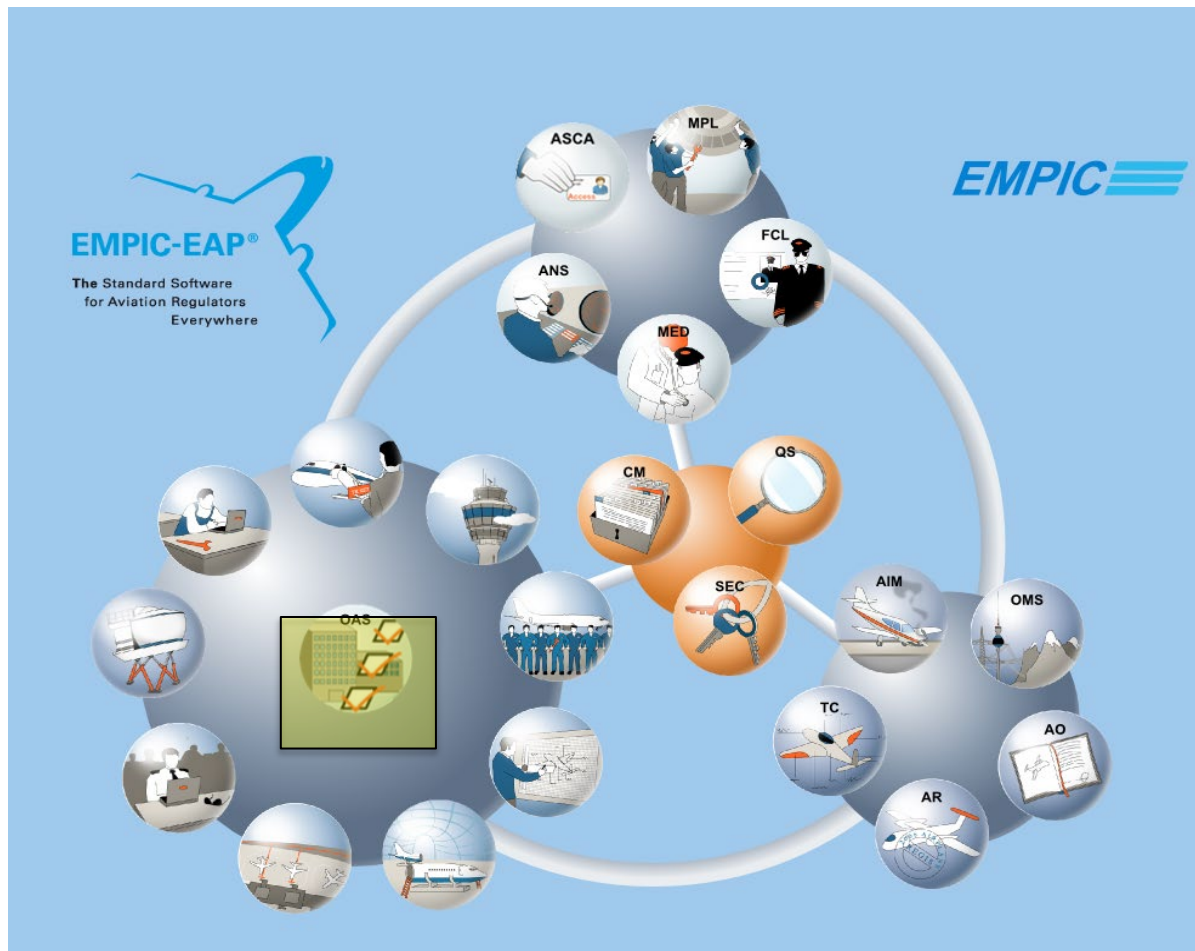


Figure 28 – EAP – OAS Bubble

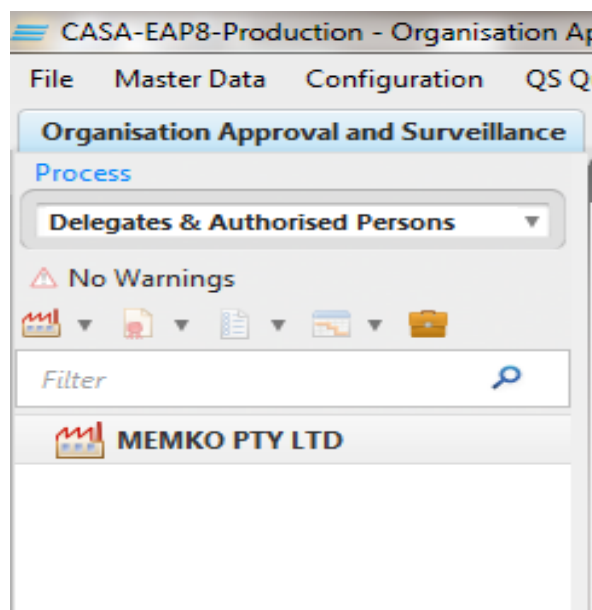


Figure 29 – EAP Organisation approval and surveillance screen

*Make sure the process is showing 'delegates and authorised persons' ([drop down box](#))

4. (Top left corner) file / search / org and person.
5. Search company (via name or ARN).
6. Double click on the company.



Figure 31 – EAP new certificate screen

9. Go through the tabs and fill in the necessary details.
10. Revision: (click on 'Edit' at the bottom of the screen to fill in the data).
 - Application date (date it was signed).
 - Issues date.
 - Active from.
 - Active until.
 - File Reference - get this no from RMS (Folder F13/747, Signed IOA – PDF (year)).
 - Conditions – enter authorised persons ARNs (as per authorised on IOA).

Figure 32 – EAP – Application detail Screen

Revision	Description	Revocation	More Information	Comp
[1]; Rev. 0	Issue Date: 14/07/2015			
	Rating Entry		Code	Stat...
	Description			+
	Designs of modifications of, and repairs to, aircr			+
	Regulation Reference			+
	CASR 21.006A			+
	CASR 21.009 (1) (f)			+
	CASR 21.M			+

Figure 33 – EAP certificate details screen

11. Description: (click on 'add' at the bottom of the page).
 - Click on the necessary CASR per IOA certificate.
12. Revocation: click 'add' at the bottom of the page if IOA if revoking another IOA.

Revision	Description	Revocation	More Information	Compliance	Free Text Blocks
[1]; Rev. 0	Issue Date: 14/07/2015				
	Rating Entry		Code	Stat...	Revoked No.
	Revocation			+	A&E 13/024

Figure 34 – EAP revocation screen

- More Information: click 'add' at the bottom of the page.
- Tick 'issuing officer' and 'Issued by' then click on okay.

Figure 35 – EAP rating screen

- Use the drop down for the issuing office.
- Click on the magnifying glass and search for the delegate's name.
- (Rohan Salgado Customer No 515406).

Figure 36 – EAP issuing details screen

The screenshot displays a web application interface for managing Electronic Appointment Procedures (EAP). At the top, a header bar contains the following information: Reference: CASA.DEL21.0001, Certificate Holder: MEMKO PTY LTD, and Address: L 4 455 Bourke St, MELBOURNE, VIC 3000. Below this is a 'Revisions' section. The first revision is listed as [1]; Rev. 0 with an Issue Date of 14/07/2015. To the right of this list is a form for editing the revision. The form has tabs for 'Revision', 'Description', 'Revocation', 'More Information', and 'Comp'. The 'Revision' tab is active. The form fields include: Revision Number (0), Application Date (14/07/2015), Issue Date (14/07/2015), Active from (14/07/2015), Active until (13/07/2017), Status (Issued), File Reference (D15/517916), Doing Business as (empty), and Conditions (Authorised Persons ARN: 772795, 418698, 439936, 526160).

Revision	Description	Revocation	More Information	Comp
[1]; Rev. 0 Issue Date: 14/07/2015				

Revision Number	0
Application Date	14/07/2015
Issue Date	14/07/2015
Active from	14/07/2015
Active until	13/07/2017
Status	Issued
File Reference	D15/517916
Doing Business as	
Conditions	Authorised Persons ARN: 772795 418698 439936 526160

Figure 37 – EAP revision screen

13. Revision tab: change the status to 'Issued'.
14. Click/change status from/to issued.
15. Close the page and log out of EAP.

1.17 Update IOA Database

1. Open up IOA Database via Citrix.
2. Click on 'search organisation'.

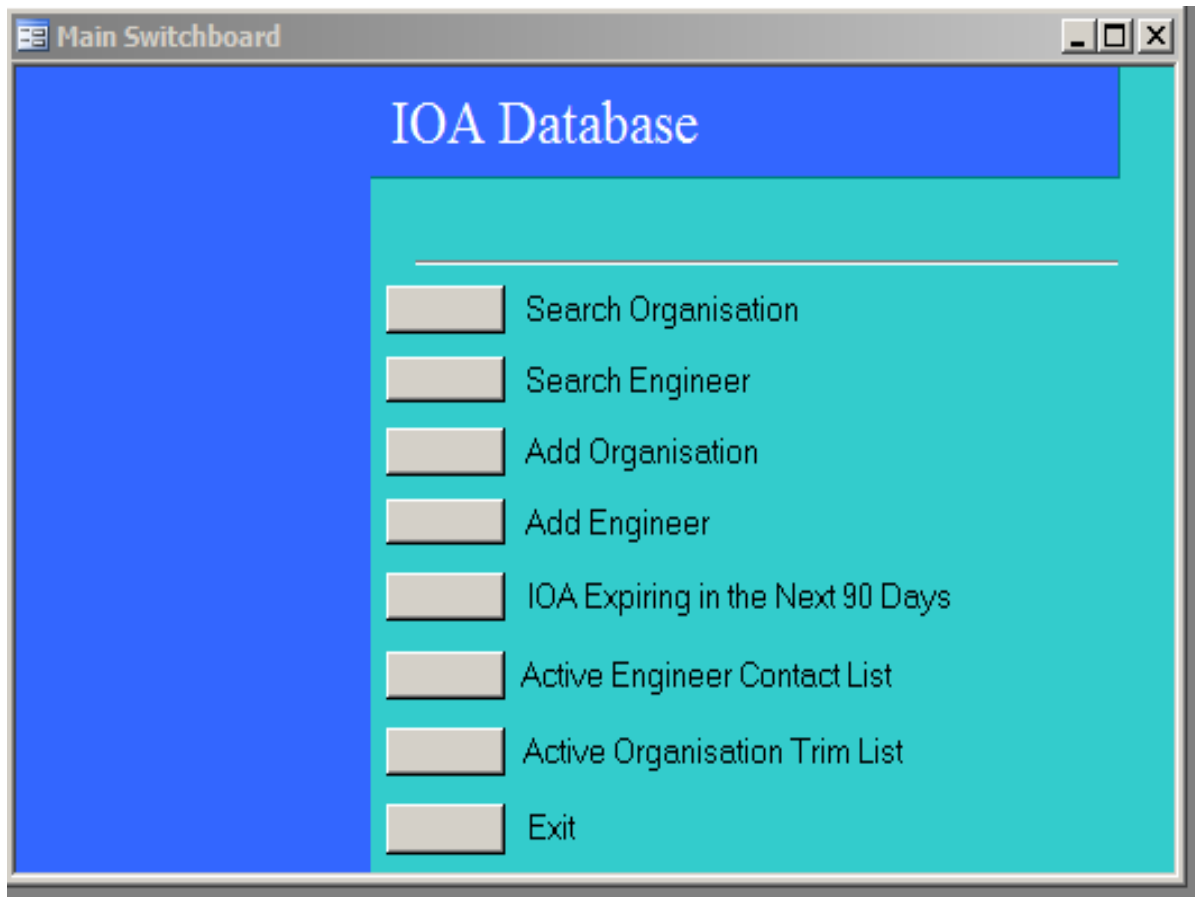


Figure 38 – IOA database

3. Type in organisation name.
4. If the new IOA is revoking an older IOA tick the 'revoked/expired' box and add the 'revoked by' IOA no.

Organisation	Memko Pty Ltd	Address 1	Level 11, 455 Bourke Street	Active	<input checked="" type="checkbox"/>
CAR30 (Design)	<input type="checkbox"/>	Address 2		TRIM Surveillance:	EF11/7533-1
Phone No:	03 8605 7777	Suburb	Melbourne	TRIM Instrument:	EF11/7533-2
ARN	772795	State:	VIC	TRIM Design:	EF11/7533-3
		Post Code	3000	TRIM CAR 30:	

First Name	Brett	Phone		ARN	439936	Technical Specialties:
Middle Name	Alan	Mobile	0408 903 530	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/> Engine
Surname	CONRAD	Fax				<input type="checkbox"/> Structures
Email	brett.conrad@canaerc					<input type="checkbox"/> Flight Analyst
State	VIC					<input type="checkbox"/> Flight Test Pilot
						<input type="checkbox"/> Material_Process
						<input type="checkbox"/> Propeller
						<input type="checkbox"/> Software
						<input type="checkbox"/> System_Equipment (Mechanical)
						<input checked="" type="checkbox"/> System_Equipment (Electrical)
						<input checked="" type="checkbox"/> System_Equipment (Instrument)
						<input checked="" type="checkbox"/> System_Equipment (Radio)
						<input type="checkbox"/> System_Equipment (Avionics)

Record:	1	of 4
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Organisation	IOA Number	CASR 21-095	CASR 21-031(1)(A)	CASR 21-006A	CASR 21-007	CASR 21-009	CASR 21-M	Issued Date	Expiry Date	Issued By	Revoked/Expired	Revoked By
Memko Pty Ltd	A&E 13/024	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16/09/2013	15/09/2015	M Higgins	<input type="checkbox"/>	A&E 15/017

Figure 39 – IOA details

5. Right mouse click the new IOA number and edit the hyperlink, find the correct file from W:\AEB\landCA\CERT\IOAs\PDF.
6. Double click PDF version. Search per year of issue.
7. Click okay.

Microsoft Access - [tbl Organisation Details]

Revoked By: Arial, 10, Bold, Italic, Underline, Text Color, Background Color, Font Size, Font Style, Font Color, Background Color, Font Size, Font Style, Font Color, Background Color

Organisation: Memko Pty Ltd, Address 1: Level 11, 455 Bourke Street, Active: ☒

CAR30 (Design): ☐, Address 2: , TRIM Surveillance: EF11/7533-1

Phone No: 03 8605 7777, Suburb: Melbourne, TRIM Instrument: EF11/7533-2

ARN: 772795, State: VIC, TRIM Design: EF11/7533-3

Post Code: 3000, TRIM CAR 30:

First Name: Brett, Phone: , ARN: 439936, Technical Specialties:

Middle Name: Alan, Mobile: 0408 903 530, Active: ☒

Surname: CONRAD, Fax: , ☐ Engine, ☐ Structures

Email: brett.conrad@canaerc, ☐ Flight Analyst, ☐ System_Equipment (Mechanical)

State: VIC, ☐ Flight Test Pilot, ☒ System_Equipment (Electrical)

☐ Material_Process, ☒ System_Equipment (Instrument)

☐ Propeller, ☒ System_Equipment (Radio)

☐ Software, ☐ System_Equipment (Avionics)

Record: 1 of 4

Organisation	IOA Number	CASR 21-095	CASR 21-031(1)(A)	CASR 21-006A	CASR 21-007	CASR 21-009	CASR 21-M	Issued Date	Expiry Date	Issued By	Revoked/Expired	Revoked By
Memko Pty Ltd	A&E 13/024	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16/09/2013	15/09/2015	M Higgins	<input type="checkbox"/>	A&E 15/017

Record: 1 of 1

IOA Number	CAR 35	CAR 36	CAR 36A	CASR 21-095	CASR 21-031(1)(A)	CASR 21-006A	CASR 21-007	CASR 21-009	CASR 21-M	Issued Date	Expiry Date	Issued By	Revoked/Exp
A&E 11/029	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	22/09/2011	21/09/2013	D. Villiers	<input checked="" type="checkbox"/>
A&E 15/017	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	14/07/2015	13/07/2017	P Dall	<input checked="" type="checkbox"/>

Record: 1 of 2

Filter By Selection
Filter Excluding Selection
Filter For:
Remove Filter/Sort
Sort Ascending
Sort Descending
Cut
Copy
Paste
Insert Object...
Hyperlink
Edit Hyperlink...
Open Hyperlink
Open in New Window
Copy Hyperlink
Add to Favorites...
Display Text: A&E 15/017
Remove Hyperlink

Figure 40 – IOA details

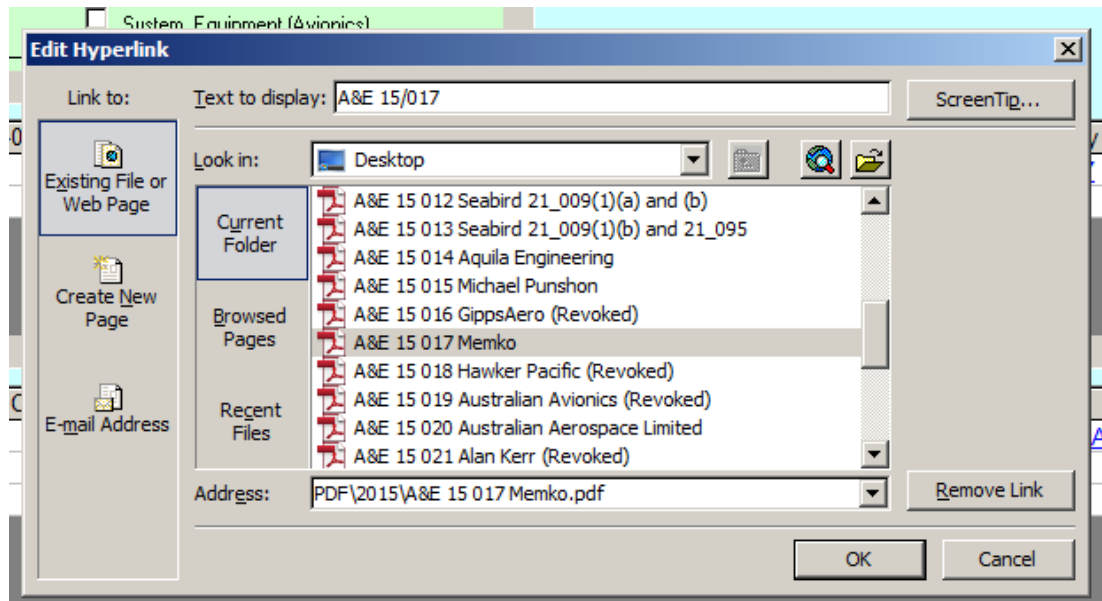


Figure 41 – IOA hyperlink screen

8. Create a new line with the new IOA details (note: the organisation line will default).
9. Hyperlink the IOA number to the correct file.
10. Tick the CASR that the IOA document mentions.
11. Fill in the 'issued/expiry date' and who it was 'issued by'.
12. Look over the names and make sure all names on certificate are showing in the database.
13. *if the name isn't showing, click on new record and enter in their ARN no and click on next record.

First Name	Eric	Phone	08 9414 7011	ARN	526160	Technical Specialties:	
Middle Name	John	Mobile	0413 993 055	Active	<input checked="" type="checkbox"/>	<input type="checkbox"/> Engine	<input checked="" type="checkbox"/> Structures
Surname	WHITNEY	Fax	08 9414 7022			<input type="checkbox"/> Flight Analyst	<input checked="" type="checkbox"/> System_Equipment (Mechanical)
Email	eric@aeroengaus.com					<input type="checkbox"/> Flight Test Pilot	<input type="checkbox"/> System_Equipment (Electrical)
State	WA					<input type="checkbox"/> Material_Process	<input type="checkbox"/> System_Equipment (Instrument)
						<input type="checkbox"/> Propeller	<input type="checkbox"/> System_Equipment (Radio)
						<input type="checkbox"/> Software	<input type="checkbox"/> System_Equipment (Avionics)

Record: 4 of 4

Figure 42 – IOA details screen

14. If an error occurs, then the IOA engineer hasn't been entered on database. Go back to the main switch and click 'add engineer'.

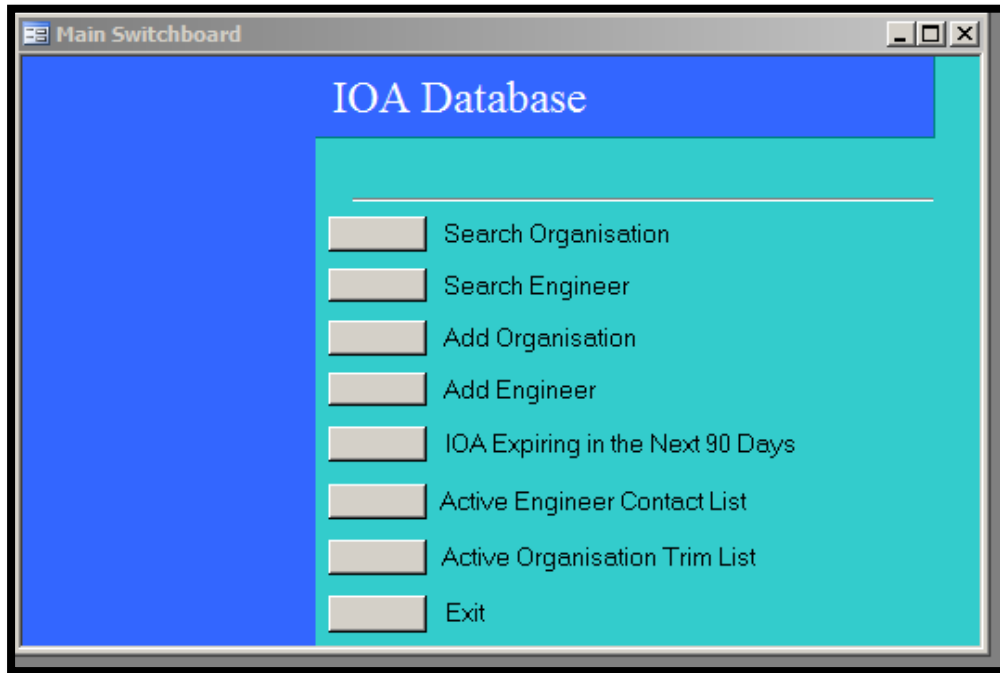


Figure 43 – IOA database

15. Fill in the available details then close the window.
16. Go back to the company search and add the engineer to the company's information.

Ensure:

1. IOA details entered into IOA database
2. IOA details entered into EAP.
3. IOA details entered into MCNTO projects
4. IOA details closed off in estimator
5. Form 1152 completed and entered in RMS
6. Task closed off in task inbox in aircraft certification
7. Old IOA revoked in IOA data base
8. Old IOA revoked in:

[W:\AEB\landCA\CERT\IOAs\Word Docs](#)

[W:\AEB\landCA\CERT\IOAs\PDF.](#)

Annex A: Interview formats

Introduction

The following are the general formats to be followed for the interview of candidates for CASR subpart 21.009(1)(ca), 21.120B, 21.M, 21.006A, 21.009(1)(f), 21.007 and 21.007A, 21.095 IOAs.

The substantive elements of the interview may be varied for other IOA, noting that essentially all design approvals involve finding of compliance to design requirements. A fairly good understanding of the manufacturing related regulations is required for APMA linked design approvals.

Each applicant for an authorisation to approve changes in type design shall attend an interview with the appropriate CASA staff to confirm their qualification, knowledge and experience for the authorisation.

The interview will involve two components; the first is to establish the applicants understanding of the Australian civil aviation regulatory framework especially in relation to certification, and the second component is confirmation of the technical experience with an emphasis on major/minor determination and approval process. This will involve the applicant answering question to demonstrate their knowledge of the subject.

Note: The IOA format included in annex B is referred to prior to conduct of interview.

CASR 21.009(1)(ca) and 21.120B Candidate interview record

Candidate Name:

Candidate ARN:

Date of Interview:

Interview Panel:

1.

2.

Original (or certified true copy) of engineering degree certificate sighted (for candidates not holding another design approval authorisation). YES/NO

The candidate who already has authorisation for 21.009(2) and subpart 21.M regulations, the panel may exempt the candidate from some of the elements of this interview format.

Interview Objectives: To assess the candidate's technical and regulatory knowledge with respect to approving changes to STCs pursuant to CASR 21.009(1)(ca), CASR 21.009(2) and 21.120B.

1. Regulatory structure

Candidates should demonstrate a good understanding of the regulatory structure comprising ICAO, the Civil Aviation Act, Civil Aviation Safety Regulations, Civil Aviation Regulations, Manuals of Standards, Civil Aviation Orders, and Advisory Material etc. Also concepts of 'Head of Power' and the lines of responsibility and obligations of an IOA holder.

Comments:

Assessment:

2. Certification basis

Design standards and concept of 'airworthiness'. Candidates should demonstrate familiarity with the process of identifying the certification standards, the concept of type design, familiarity with TC, STC, TSO, ATSO, APMA, modifications and repairs. Familiarity with the TCDS, special conditions, exemption and equivalent safety. CASR Part 90 requirements. Familiarity with certification and operational categories of aircraft, airworthiness directives, MELs, operational requirements and approved data. Distinction between the design, showing compliance and finding of compliance is to be explored.

Comments:

Assessment:

3. Major and minor classification

Candidates must demonstrate a good understanding of major / minor classification with respect to their engineering specialities.

Comments:

Assessment:

Finding of compliance

Candidates must demonstrate an understanding of the Compliance Matrix, advisory materials, and the changed product rule. Familiarity with CASA form 979 and a good understanding of CASR 21.033 and 21.053.

Comments:

Assessment:

Case studies of compliance

Samples of design work carried out by the candidate are to be reviewed and compliance requirements explored. Candidates should demonstrate adequate engineering knowledge of the specialities considered to make an assessment of data presented. Adequacy of compliance finding to be explored in the samples.

Comments:

Assessment:

CASR 21.009(1)(ca), CASR 21.009(2) and 21.120B approved procedures

Candidates must demonstrate familiarity with CASA approved procedures for exercising the authorisation.

Comments:

Assessment:

Instrument of appointment

Identify the scope of the IOA – conditions and limitations. Discuss CASR 201.001 and CASR 11.56 requirements. Review of instrument, period of validity of the instrument, privileges, etc.

(If the candidate is unlikely to be successful, indicate at this stage the deficient area and suggest corrective actions.)

Comments:

Assessment:

Surveillance of the instrument of appointment activities

Discuss the surveillance program with the applicant covering risk-based surveillance, special surveillance, approval activity report. NCNs and response to NCNs. Observations.

Comments:

Assessment:

Feedback to candidate

Summarise the interview conclusions. Identify the areas for further improvement and/or training as applicable.

Feed back

1)

2)

Final recommendation

Make a recommendation to the CASR 201.001 delegate on the scope and speciality for the candidate.

CASR 21.009(1)(f) Interview format

CASR 21.009(1)(f) Instrument of appointment (new or alteration)

Interview

Assessment sheet

Name:

ARN:

Date:

Interview conducted by:

1. _____
2. _____

Candidate documentation to be produced at the interview:

1. Original and copy of engineering degree certificate (for new candidates)
2. At least two samples of work in the relevant specialities where finding of compliance to design standards is demonstrated (if not already submitted)
3. CASA to review the earlier interview record (for IOA alterations).

Interview objectives:

Noting that the candidates have already demonstrated extensive industry experience in designing modifications and repairs, the focus of the interview will be on assessing their capability in finding regulatory compliance of the designs. This task will require an understanding of the regulatory structure, the relevant design standards and an understanding what they may be authorised to approve, and the likely scope of their instrument of appointment.

The emphasis in the following interview areas vary depending on whether the candidate interview is for new IOA or for alteration.

1. Regulatory structure

1. Candidates should demonstrate an understanding of the regulatory structure comprising ICAO, the Civil Aviation Act, Civil Aviation Safety Regulations, Civil Aviation Regulations, Manuals of Standards, Civil Aviation Orders, and Advisory Material etc
2. Concept of 'Head of Power'
3. Familiarity with significant regulatory instruments such as current exemptions affecting design approval functions
4. Concept of 'approved data'.

5. Candidates should also demonstrate a thorough understanding of the lines of responsibility and obligations of an IOA holder.

Comments:

Assessment:

2. Certification basis

This section deals with the general concepts. Specific issues related to CASR 21.405 etc are dealt with later.

1. Design standards and concept of safety as enshrined in design standards. Design standard basis for Maintenance manuals and flight manuals
2. Candidates should demonstrate familiarity with the process of identifying the certification standards, the concept of type design, familiarity with TC, STC, TSO, ATSO, APMA, modifications and repairs
3. Familiarity with the TCDS, significant elements of the TCDS such as special conditions, exemption, equivalent safety, in the context of the scope considered
4. CASA procedures for these to be discussed
5. CASR Part 90 requirements
6. Alteration approval procedures for PMA, APMA and TSO items are to be explored
7. Familiarity with Certification and operational categories of aircraft, airworthiness directives, MELs, operational requirements (CAO 20.18, etc) approved data etc
8. Distinction between the design and the finding of compliance is to be emphasised.

Comments:

Assessment:

3 Regulations for the design approval of modifications and repairs

1. Concept of applicant and proposed airworthiness standard and applicable airworthiness standard. CASR 21.405 (3) and (4)
2. Familiarity with CASA form 442
3. Discuss CASR 21.414 and exercise of this authorisation by the AP
4. Discuss CASR 21.416 and its exercise
5. Implications of CASR 21.425 (2)
6. Discuss exercise of 21.430(1) authorisation by the authorised person
7. Knowledge of subpart 21M, equivalent safety determination
8. Discuss CASR 21.445 and its impact of revisions to EOs.

Comments:

Assessment:

4 Major and minor determination

1. This aspect will be central for the IOA holders as they will be allowed to do minor modifications and repairs without consulting CASA
2. Candidates must demonstrate a thorough understanding of CASA guidelines on major / minor classification including familiarisation with AC 21-12
3. Candidates must also demonstrate an understanding of CASR 21.093.

Comments:

Assessment:

5 Finding of compliance

1. Candidates must demonstrate an understanding of the compliance matrix, advisory materials, and the changed product rule
2. Candidates must be familiar with xx.1309, and failure mode and effect analysis should be explored in the interview
3. Recording of finding of compliance per CASR 21.009(1)(f). Approvals involving multiple authorised persons, and the role of the 21.437 authorised person
4. Familiarity with CASA form 979
5. Familiarity with requirements of submitting a design advice (form 655)
6. Continuing Airworthiness information. CAR 37, 42ZS, 2A and CASR (1998) Part 39, Part 42 and Part 145 interactions
7. Familiarity with CASR 21.007 and 21.007A
8. Approval of equipment, CAR 82 and 207 approvals
9. Structure of the EO and essential data requirements.

Comments:

Assessment:

6 Case studies of compliance

1. Samples of design work carried out by the candidate are to be reviewed and compliance requirements explored

2. Candidates should demonstrate adequate engineering knowledge of the specialities considered to make an assessment of data presented
3. Adequacy of compliance finding to be explored in the samples
4. Documentation requirements before exercising of the authorisation.

Comments:

Assessment:

7 Instrument of appointment

1. If the candidate is unlikely to be successful, indicate the deficient area and suggest corrective actions
2. Discussions on the interview so far and the comments noted earlier to identify the scope of the IOA. Data access arrangements are to be discussed
3. Speciality and limitations are to be discussed as appropriate
4. Discuss CASR 201.001 and CASR 11.56 requirements
5. Review of instrument, period of validity of the instrument (life), privileges, etc
6. Structure of instrument.

Comments:

Assessment:

8 Surveillance of the instrument of appointment activities

1. Discuss the surveillance program with the applicant covering risk-based surveillance, special surveillance, design approval activity report
2. NCNs and response to NCNs
3. Observations.

Comments:

Assessment:

9 Feedback to candidate

1. Summarise the interview conclusions
2. Identify the areas for further improvement

3. Suggest training and future focus areas and inform that these areas will be explored in the next interview.

Feed back

1)

2)

10 Final recommendation

1. Make a recommendation to the CASR 201.001 delegate on the scope and speciality for the candidate.

CASR 21.437 and CASR 21.006A interview format

CASR 21.437 and CASR 21.006A Instrument of appointment (new or alteration) Interview Assessment sheet

Name:

ARN:

Date:

Interview conducted by:

1. _____
2. _____

Candidate documentation to be produced at the interview:

1. At least two samples of work, as selected by CASA from a list, where finding of compliance to design standards is demonstrated
2. CASA to review the earlier interview record of CASR 21.009(1)(f) authorisation
3. CASA to review any surveillance findings related to the candidate.

Interview objectives:

The interview and evaluation for CASR 21.437 and CASR 21.006A authorisations are to be viewed as part of a continuum of assessment process for design approval related authorisations. The candidate typically already holds CASR 21.009(1)(f) authorisation and there must be documented evidence that the obligations under this authorisation has been diligently discharged.

Noting that the candidate already holds authorisation, the interview should demonstrate knowledge about regulations. Hence the interview format does not include CASA citing the regulations, but CASA asking the candidate to identify the relevant regulation.

The emphasis in the following interview areas vary depending on whether the candidate interview is for new IOA or for alteration.

1. Review of earlier approvals

1. A detailed review of earlier approvals is to be carried out
2. This review should document that the samples selected have met the standards of compliance finding in the speciality areas identified
3. This should also document that all the applicable design requirements have been identified

4. Review any surveillance findings and acquittal of any NCNs by the authorised person.

Comments:

Assessment:

2. Certification basis

1. Concept of proposed design standard and applicable design standard. Their links to TCDS data
2. Special conditions and changes to certification basis
3. Operational categories with special reference to restricted and limited category approvals
4. Approvals for experimental category aircraft
5. Australian unique additional airworthiness requirements
6. Approval of operational equipment per CAO 20.18 to be explored
7. Alteration approval procedures for PMA, APMA and TSO items are to be explored.

Comments:

Assessment:

3. Regulations for the design approval of modifications and repairs

1. Discuss conditions to be met prior to a CASR 21.437 approval
2. Discuss regulations related to conformity inspection, test witnessing and calibration
3. Discuss regulations related to equivalent safety determination
4. Conditions under which a design requirement can be exempted.

Comments:

Assessment:

4. Major and minor classifications

1. This aspect will be central for the IOA holders as they will be allowed to do minor modifications and repairs without consulting CASA
2. Candidates must demonstrate a thorough understanding of EASA / FAA / CASA guidelines on major / minor classification

3. Regulatory basis for Design advice condition and structure of Design Advice. CASA regulation related to major/minor definition
4. Major/minor classification involving multiple specialities.

Comments:

Assessment:

5. Finding of compliance

1. Review procedure of compliance finding carried out by CASR 21.009(1)(f) authorised person
2. Role of CASR 21.437 authorised person on approvals involving multiple specialities
3. Continuing Airworthiness information. CAR 37, 42ZS, 2A and CASR (1998) Part 39, Part 42 and Part 145 interactions
4. Familiarity with approvals related to unrepaired damage
5. Approval of Equipment. CAR 82 and 207 approvals
6. Structure of the EO and essential data requirements.

Comments:

Assessment:

6. Flight manual supplements

1. Basis for FMS under design requirements (FAR 23 etc)
2. FMS as basis for compliance finding.
3. FMS formatting requirements, mandatory part of the FMS.
4. FMS and Placard linkages.

Comments:

Assessment:

7. Design documentation

1. Recording of final design approval, structure of the engineering order
2. Approval of drawings
3. Regulatory basis for Instructions for continued airworthiness
4. Changing the mandatory part (chapter 4 or 5 of maintenance manual) of ICA
5. Mandatory requirements such as inspections related to alterations

6. "Authority to mandate" issues.

Comments:

Assessment:

8. Instrument of appointment

If the candidate is unlikely to be successful, indicate the deficient area and suggest corrective actions.

1. Discussions on the interview so far and the comments noted earlier to identify the scope of the IOA. Data access arrangements are to be discussed
2. Speciality and limitations are to be discussed as appropriate
3. Discuss CASR 201.001 and CASR 11.56 requirements
4. Review of instrument, period of validity of the instrument (life), privileges, etc
5. Structure of instrument.

Comments:

Assessment:

9. Surveillance of the instrument of appointment

1. Discuss the surveillance program with the applicant covering stand-based surveillance, special surveillance and design approval activity report
2. NCNs and response to NCNs.

Observations

Comments:

Assessment:

Feedback to candidate

1. Summarise the interview conclusions.
2. Identify the areas for further improvement.
3. Suggest training and future focus areas and inform that these areas will be explored in the next interview, as appropriate.



Feed back

1)

2)

Final recommendation

Make a recommendation to the CASR 201.001 delegate on the scope and speciality for the candidate.

CASR 21.007 Candidate interview record

Candidate Name:

Candidate ARN:

Date of Interview:

Interview Panel:

1. _____
2. _____

Original (or certified true copy) of engineering degree certificate sighted (for candidates not holding another design approval authorisation). YES/NO

The candidate who already has authorisation for 21.009(2) and subpart 21.M regulations, the panel may exempt the candidate from some of the elements of this interview format.

Interview Objectives: To assess the candidate's technical and regulatory knowledge with respect to approving permissible unserviceabilities pursuant to CASR 21.007.

1. Regulatory structure

Candidates should demonstrate a good understanding of the regulatory structure comprising ICAO, the Civil Aviation Act, Civil Aviation Safety Regulations, Civil Aviation Regulations, Manuals of Standards, Civil Aviation Orders, and advisory material etc. Also concepts of 'head of power' and the lines of responsibility and obligations of an IOA holder.

Comments:

Assessment:

2. Certification basis

Design standards and concept of 'airworthiness'. Candidates should demonstrate familiarity with the process of identifying the certification standards, the concept of type design, familiarity with TC, STC, TSO, ATSO, APMA, modifications and repairs. Familiarity with the TCDS, special conditions, exemption and equivalent safety. CASR Part 90 requirements. Familiarity with certification and operational categories of aircraft, airworthiness directives, MELs, operational requirements and approved data. Distinction between the design, showing compliance and finding of compliance is to be explored.

Comments:

Assessment:

3. Major and minor classification

Candidates must demonstrate a good understanding of major / minor classification with respect to their engineering specialities and CASA guidance material.

Comments:

Assessment:

4. Finding of compliance and safety assessments

Candidates must demonstrate an understanding of the Compliance Matrix, advisory materials, and the changed product rule. Familiarity with CASA form 979. Familiarity with safety assessment processes relevant to their technical speciality with reference to CASA guidance material.

Comments:

Assessment:

5. Case studies of compliance

Samples of design work carried out by the candidate are to be reviewed and compliance requirements explored. Candidates should demonstrate adequate engineering knowledge of the specialities considered to make an assessment of data presented. Adequacy of compliance demonstrations and safety assessments to be explored in the samples.

Comments:

Assessment:

6. 21.007 Approval procedures

Candidates must demonstrate familiarity with CASA approved procedures for exercising the authorisation.

Comments:

Assessment:

7. Instrument of appointment

Identify the scope of the IOA – conditions and limitations. Discuss CASR 201.001 and CASR 11.56 requirements. Review of instrument, period of validity of the instrument, privileges, etc. (If the candidate is unlikely to be successful, indicate at this stage the deficient area and suggest corrective actions.)

Comments:

Assessment:

8. Surveillance of the instrument of appointment activities

Discuss the surveillance program with the applicant covering risk-based surveillance, special surveillance, approval activity report. NCNs and response to NCNs. Observations.

Comments:

Assessment:

9. Feedback to candidate

Summarise the interview conclusions. Identify the areas for further improvement and/or training as applicable.

Feedback

1)

2)

10. Final recommendation

Make a recommendation to the CASR 201.001 delegate on the scope and speciality for the candidate.

Instrument of Appointment 21.009(1)(b) and CASR 21.095 regulations interview record

Assessment sheet

Name:

ARN:

Date:

Interview conducted by:

1. _____

2. _____

Candidate documentation to be produced at the interview:

1. At least six samples of work, as selected by CASA from the applicant's list, where finding of compliance to design standards is demonstrated
2. CASA to review the earlier interview record of CASR 21.009 authorisation (if applicable)
3. CASA to review any surveillance findings related to the candidate (if applicable)
4. For candidates who do not hold any prior authorisation, original of degree certificate will be sighted at interview.

Interview objectives:

CASA offers CASR 21.095 IOA to an experienced CASR 21.M authorised person except in case of aircraft manufacturers who may not be required to hold subpart 21.M authorisation.

Noting that the candidates have extensive industry experience in designing modifications and repairs, the focus of the interview will be on assessing their capability in finding regulatory compliance to the change in type designs. To be an authorised person for change in type design, the applicant will require an understanding of the regulatory structure, the relevant design standards and an understanding what they are authorised to approve, that is the scope of their proposed instrument of Appointment.

The emphasis in the following interview areas vary depending on whether the candidate already holds 21.009 or and subpart 21.M authorisation.

1. Regulatory structure

1. Candidates should demonstrate an understanding of the regulatory structure comprising ICAO, the Civil Aviation Act, Civil Aviation Safety Regulations, Civil Aviation Regulations, Manuals of Standards, Civil Aviation Orders, and Advisory Material etc.
2. Concept of 'Head of Power'

3. Familiarity with CASA exemptions
4. Concept of 'approved data'
5. Candidates should also demonstrate a thorough understanding of the lines of responsibility and obligations of an IOA holder.

Comments:

Assessment:

2. Certification basis

1. Concept of proposed design standard and applicable design standard. Their links to TCDS data
2. Special conditions and changes to certification basis
3. Operational categories with special reference to restricted and limited category approvals
4. Approvals for experimental category aircraft
5. Australian unique additional airworthiness requirements
6. Alteration approval procedures for PMA, APMA and TSO, ATSO items are to be explored.

Comments:

Assessment:

3. Regulations for change to type design

1. Discuss CASR 21.095 approval and conditions to be met prior to a CASR 21.095 approval
2. Discuss regulations related to equivalent safety determination
3. Conditions under which a design requirement can be exempted
4. Familiarity with CASR 21.007A.

Comments:

Assessment:

4. Major and minor determination

This aspect will be central for the IOA holders as they will be allowed to do minor changes to type design without consulting CASA.

1. Candidates must demonstrate a thorough understanding of CASA guidelines on major / minor classification including AC 21-12
2. Familiarity with CASA design advice process.

Comments:

Assessment:

5. Finding of compliance

1. Review procedure of compliance finding carried out by CASR 21.009(1)(b) authorised person
2. Role of CASR 21.095 on approvals requiring multiple specialities
3. Form 979 or equivalent.

Comments

Assessment:

7. Design documentation

1. Recording of final design approval, structure of the approval document
2. Approval of Drawings
3. Regulatory basis for Instructions for Continued Airworthiness.

Comments:

Assessment:

8. Instrument of appointment

(If the candidate is unlikely to be successful, indicate the deficient area and suggest corrective actions)

1. Discussions on the interview so far and the comments noted earlier to identify the scope of the IOA. Data access arrangements are to be discussed

2. Speciality and limitations are to be discussed as appropriate
3. Discuss CASR 201.001 and CASR 11.56 requirements
4. Review of instrument, period of validity of the instrument (life), privileges, etc.
5. Structure of instrument.

Comments:

Assessment:

9. Surveillance of the instrument of appointment activities

1. Discuss the surveillance program with the applicant covering risk-based surveillance, special surveillance and design approval activity report
2. NCNs and response to NCNs
3. Observations.

Comments:

Assessment:

10. Feedback to candidate

1. Summarise the interview conclusions
2. Identify the areas for further improvement
3. Suggest training and future focus areas and inform that these areas will be explored in the next interview, as appropriate.

Feed back

1)

2)

11. Final recommendation

Make a recommendation to the CASR 201.001 delegate on the scope and speciality for the candidate.

Annex B: IOA template

Introduction

The general structure of the IOA below is for CASR subpart 21.M, 21.006A, 21.009, 21.007, 21.120B and 21.095. However, in general the IOA should include speciality and scope specification for all authorised persons.

The specialities are structures, mechanical systems, electrical systems, instrument systems, radio systems, software, propellers, engines, flight analyst, and materials. The academic qualifications required typically is an engineering degree or equivalent in mechanical or aeronautical discipline for structures, and mechanical systems augmented by training and experience for propellers and engine specialities. For electrical, instrument and radio, an electrical-electronics related academic qualifications are typically required. Both the above educational backgrounds are adequate for flight analyst and software specialities. The materials speciality needs educational background in metallurgy or material sciences.

Limitations are typically related to the design standards, such as FAR23 or equivalent, rotor craft excluded etc. At times, the limitation can be on the speciality such as, excluding turbine engines (for engine speciality), excluding communication equipment (for radio speciality).

CASR subpart 21.M Instrument of Appointment template

Instrument number AEB xx/XXX

I, XXX, [Insert position title, check delegation is current], a delegate of CASA, make this instrument under regulation 201.001 of the *Civil Aviation Safety Regulations*.

XXX

[Insert position title]

Airworthiness and Engineering Branch

[dd Month Year]

Appointment – Authorised Persons – [XYZ Pty Ltd]

1 Repeal of previous appointment

Instrument of Appointment number AEB xx/XXX is repealed.

2 Appointment

- (1) I appoint the persons mentioned in Schedule 1 (the **authorised persons**) to be authorised persons for subpart 21.M, regulation 21.006A, and subregulation 21.009 (2) of CASR.
- (2) The appointment is subject to the conditions mentioned in section 3.

3 Conditions

- (1) An authorised person must, when acting under the appointment in section 2:
 - (a) comply with the [XYZ Pty Ltd] Design Approval Procedures Manual (**DAPM**) Issue ---, dated [dd Month Year], as amended in accordance with the amendment procedures set out in the manual; and
 - (b) not exceed the limitations (if any) mentioned for the authorised person in column 3 of the table in Schedule 1; and
 - (c) comply with any written direction of CASA:
 - (i) in relation to the exercise of the powers covered by the appointment; and
 - (ii) to amend the DAPM within any period specified in the direction; and

- (d) make available to CASA for inspection, at any reasonable time, all documents and records relating to the exercise of the powers covered by the appointment that the DAPM requires the authorised person to keep.
- (2) An authorised person must not approve technical data for subregulation 21.009 (2) of CASR unless the technical data:
 - (a) is in connection with an application of the kind mentioned in paragraph 21.009 (1) (f); and
 - (b) is of a type in an engineering speciality mentioned for the authorised person in column 4 of the table in schedule 1.

4 Revocation

The appointment of an authorised person is revoked at the end of the day on which the authorised person ceases to be employed by or working under an arrangement with [XYZ Pty Ltd].

5 Repeal

This instrument is repealed at the end of [date month year].

Schedule 1 Authorised persons

	Person (Column 1)	ARN (Column 2)	Limitations (Column 3)	Engineering specialities (Column 4)
1	John Smith	1234	Nil	Structures Systems and Equipment (Mechanical)
2	Richard Jones	5678	Limited to FAR 23 or equivalent	Structures Systems and Equipment (Mechanical)
3			Limited to piston engines	Engines

– END –

CASR 21.095 Instrument of Appointment Template

Instrument number AEB xx/XXX

I, XXX, [Insert position title, check delegation is current], a delegate of CASA, make this instrument under regulation 201.001 of the *Civil Aviation Safety Regulations*.

XXX

[Insert position title]

Airworthiness and Engineering Branch

Date month year

Appointment – Authorised Persons – [XYZ Pty Ltd]

1 Repeal of previous appointment

Instrument of Appointment number AEB/XXX is repealed.

2 Appointment

- (1) I appoint the persons mentioned in Schedule 1 (the **authorised persons**) to be authorised persons for subregulations 21.009 (2) and 21.095 (3) of CASR.
- (2) The appointment is subject to the conditions mentioned in section 3.

3 Conditions

- (1) An authorised person must, when acting under the appointment in section 2:
 - (a) comply with the [XYZ Pty Ltd] Design Approval Procedures Manual (**DAPM**) Issue ---, dated [dd Month Year], as amended in accordance with the amendment procedures set out in the manual; and
 - (b) not exceed the limitations (if any) mentioned for the authorised person in column 3 of the table in Schedule 1; and
 - (c) issue approvals only in respect of aircraft types for which [XYZ Pty Ltd] is the type certificate holder; and
 - (d) comply with any written direction of CASA:
 - (i) in relation to the exercise of the powers covered by the appointment; and
 - (ii) to amend the DAPM within any period specified in the direction; and

- (e) make available to CASA for inspection, at any reasonable time, all documents and records relating to the exercise of the powers covered by the appointment that the DAPM requires the authorised person to keep.
- (2) An authorised person must not approve technical data for subregulation 21.009 (2) of CASR unless the technical data:
 - (a) is in connection with an application of the kind mentioned in paragraph 21.009 (1) (b); and
 - (b) relates to a minor change to a type design; and
 - (c) is of a type in an engineering speciality mentioned for the authorised person in column 4 of the table in Schedule 1.

4 Revocation

The appointment of an authorised person is revoked at the end of the day on which the authorised person ceases to be employed by or working under an arrangement with [XYZ Pty Ltd].

5 Repeal

This instrument is repealed at the end of [date month year].

Schedule 1 Authorised persons

	Person (Column 1)	ARN (Column 2)	Limitations (Column 3)	Engineering specialities (Column 4)
1	John Smith	1234	Nil	Structures Systems and Equipment (Mechanical)
2	Richard Jones	5678	Limited to FAR 23 or equivalent	Structures Systems and Equipment (Mechanical)
3			Limited to piston engines	Engines

- End -

Annex C: Design approval procedures manual

Design approval procedures manual (DAPM) guidelines for CASR 21.009, 21.006A and subpart 21M authorised persons

1. Introduction

The CASR require authorisations to be issued for CASRs 21.009, 21.006A and subpart 21M to cover the functions respectively of approval of technical data based on finding of compliance, approval for flight manual changes and approval of design. In addition, three entities are defined, the applicant who submits the data package to the), the AP to whom CASA has issued the IOA and the approval holder who is responsible for the continuing airworthiness of the alteration after approval. Once the alteration has been approved, the applicant becomes the Approval Holder. However, in some cases Approval Holder may not be same as applicant.

It is important to emphasise that this document deals only with the **AP functions covered by the IOA** even though in some circumstances the AP may be the applicant and the Approval Holder.

2. Preamble

1. The Civil Aviation Act, CASR and IOA shall have precedence over the DAPM in that order.
2. For the sake of brevity, where appropriate, only the regulation numbers are used hereafter where it relates to a CASR.
3. CASRs 21.009 and 21.430 APs are limited to the engineering speciality and other limitations detailed in the IOA and described in their DAPM.
4. CASR 21.M AP is the coordinator for all design approvals and is not constrained by any engineering speciality in the IOA. Similarly, a CASR 21.006A AP is also not constrained by any engineering speciality. There may be some limitations related to the scope, such as FAR 23, FAR 29 etc.
5. Approval of any document by a CASR21.009 AP outside the scope of the IOA renders the document un-approved.
6. CASR subpart 21.M authorisation is for CASR 21.437 and 21.414, which may be typically used during the course of design approval.
7. It is possible to issue only CASR 21.009 (and in some cases CASR 21.006A) authorisation initially to new candidates, to be progressed to subpart 21.M authorisations based on experience. Hence, the tasks to be performed by the different authorised persons are separated in the DAPM guidelines.
8. Specification of relevant CASA form numbers is only indicative and can be changed subject to CASA approval.
9. Approvals under CASR 21.437 may be any one or a combination of a physical change, or a change to an operating envelope, performance, operating characteristics, limitations or ICA, to an aircraft, aircraft engine, propeller or appliance (for further details refer to CASA AC 21-08).

3. Approval Procedures

The regulations relevant to the DAPM range from CASRs 21.006A to 21.460, while the following guidelines provide a reasonable approval procedure sequence that integrates the regulatory requirements.

The DAPM shall be divided into two sections, the "approved" section and the "accepted" section. The approved section sets out the process to be followed during the design approval, and is usually specified in broad terms, so that the actions to be taken to comply with them can be adapted to the specific requirements. The "approved" section of the DAPM shall be changed only after receiving prior approval from CASA.

The "accepted" section of the DAPM provides specific details (business practices) about how the conditions set out in the IOA and the process requirements of the approved section of the DAPM are complied with. The reasons for any changes to the "accepted" section of the DAPM are to be documented, with the changes made without prior acceptance from CASA to ensure that the IOA holder has the flexibility to make changes to the operational aspects of their business. A revised copy which includes the changes to the accepted section of the manual is to be sent to CASA and is deemed 'accepted' if no contrary information is received within 30 days.

Note: Guidance for the accepted section is in *Italics*.

The following procedures shall apply to the approved section of the DAPM.

Anything shown in *Italics* shall apply to the accepted section of the DAPM.

1. The data package received from the applicant shall be reviewed to ensure that it includes the:
 - (a) applicant's name and address.
 - (b) Make model and serial number of aircraft, engine, propeller, appliance / aeronautical product.
 - (c) Registration mark of aircraft if applicable.
 - (d) Proposed airworthiness standard and means of compliance, along with a description of the modification.
 - (e) Technical data related to the design, Instructions for continuing airworthiness (ICA), inspection and test reports.
 - (f) Flight Manual changes.
 - (g) Any additional details as required from time to time.

CASA form 442, available on CASA website, should be used for the application. Alternatively, a suitable form that includes the data noted above may be part of the accepted section. CASA approval is required if any of the above data is not included in the form.

In such cases where applicant, approver and approval holder are same, the requirement of completing the form 442 is optional. However, DAPM should reflect such a deviation.

2. The engineering speciality definitions shall be followed by all CASR 21.009 APs. The subpart 21.M AP shall ensure that all relevant design requirements across all specialities are complied with and have the appropriate CASR 21.009 approvals of the technical data before making any approvals under CASR 21.437.

Engineering speciality definitions will be provided by CASA and shall be included in the approved section of the DAPM.

In general terms, the subpart 21.M AP is responsible for ensuring compliance with all the requirements in that subpart. CASR 21.009 AP responsibility is to approve the technical data based on a finding of compliance to the design requirements (applicable design standards) within their speciality.

Similarly, the CASR 21.006A AP responsibility is to approve any flight manual changes, including approval of Flight Manual Supplements (FMS) within the scope of their IOA.

3. The subpart 21.M AP shall review all the data submitted by the applicant to ensure suitability for further processing.
4. The proposed design standard shall be reviewed to ensure that it provides an adequate level of safety for CASR 21.414. The AP may change the standards as required and may impose additional conditions, and design requirements subject to CASA response to the Design Advice. All such changes shall be determined under the CASR 21.414 authorisation which are to be included as part of CASR 21.437 authorisations.

CASA advice through a DA shall be sought for any major mods involving novel features that may require additional design requirements or special conditions. There should be provision in the documentation system to record the basis for changes, as it is an exercise of the CASR 21.414 authorisation.

5. If the modification is related to an aircraft certificated in the restricted category, or is to be operated in the restricted category, then a Design Advice (DA), along with an Issue Paper, shall be submitted to CASA for a determination under CASR 21.416, if any design requirement in addition to what is already approved is deemed to be inappropriate for the special purpose for which the aircraft is to be used. The subpart 21.M AP shall record such a determination per paragraph 10.

The issue paper will identify the rationale behind the appropriateness of design requirements that are to be approved by CASA, in addition to what has already been approved, for the special purpose for which the aircraft is to be used.

6. For all modifications, subpart 21.M AP shall review the design requirements against the modification details to identify whether any special conditions are to be included, or design requirements modified to address any unsafe aspects. A statement to that effect shall be recorded in the approval documentation.

CASR subpart 21M AP shall assess the design to ensure that no feature or characteristic of the design makes it unsafe for its intended use as required per CASR 21.437 (4) (d) and certify for its compliance per the procedure in the accepted section.

The AP may rely on previous experience with similar modifications, an assessment of any novel features in the modifications, an evaluation of the unique operational role for the aircraft, technology change compared to the certification year, the special conditions in the type certificate data sheet of the aeronautical product being modified etc. to make a determination on the need to have special conditions and altered design requirements. As this is a regulatory requirement of significance, a suitable form is to be included in the accepted section to document compliance.

7. A major/minor classification of the proposed modification shall be made per CASA AC 21-12. This determination must be carried out by all CASR 21.009 APs involved

and if any individual AP determines their part of the modification to be major then the whole modification shall be classified as major. The CASR 21.437 AP shall coordinate the classification determination. If the modification is major, a DA shall be submitted to CASA unless the AP is authorised to approve the major modification without submitting the DA. Advice from the OEM shall be considered.

A suitable form based on the AC 21-12 guidelines may be prepared and included in the accepted section to document the basis for the classification.

8. If the major / minor classification is inconclusive, DA shall be submitted to CASA for a determination.
9. In all cases CASA response to the DA shall be complied with and recorded per paragraph 10.
10. The 21.M AP shall consolidate the design requirement changes per paragraphs 4, 5, 6, 7, 8 and 9 above to the proposed design requirement. Identify the changed design requirements as the “applicable airworthiness standard” and record it on form 979 or equivalent form approved by CASA.
11. The CASR 21.009 AP shall review the technical data and compliance data submitted by the applicant, taking into account any changes per paragraphs 12 and 13 below. The AP shall approve the technical data including the ICA, based on finding of compliance to the applicable airworthiness standard per paragraph 10 above, subject to the specialities and limitations in the IOA. Advice from the OEM shall be considered, as appropriate. Requirements where equivalent safety determinations are required shall be identified for further action, per paragraph 15.
12. CASR 21.009 AP shall ensure that, if their speciality involvement in the design approval involves tests, conformity inspection for the dimensions and processes are to be carried out and recorded in CASA form 724. All the instruments used for the tests shall be calibrated and records of the tests and details of the test equipment kept, including the calibration records for the instruments.
13. CASR 21.009 AP shall make an assessment of the tests required to be witnessed by the AP. The AP may issue a notice to the applicant detailing the witnessing requirement. Such a notice shall be signed under CASR 21.430 (1), the authorisation to do so being included in the CASR 21.009 IOA. The AP should ensure that the configuration of the test article is consistent with the data established per paragraph 9 above.

A suitable form shall be developed to address the regulatory requirements associated with flight tests to document compliance to the regulatory requirements noted in above paragraphs 12 and 13.

14. CASR 21.006A authorised person may approve the changes to the flight manual only if the relevant technical data is also approved by the same AP per paragraph 11 above. If the approval involves multiple specialities or the CASR 21.009 AP does not have authorisation for CASR 21.006A, the subpart 21.M AP shall make the determination on which CASR 21.009 AP shall make the approval.

The format of the changes to the Flight Manual should match the original format i.e. appropriate section numbering, page size etc. The applicable make and model of the aircraft along with the relevant design approval number shall be on the top right-hand corner of each affected page.

15. CASR subpart 21.M AP shall assess the design to ensure that no feature or characteristic of the design makes it unsafe for its intended use as required per

CASR 21.437 (4) (d) and certify for its compliance per the procedure in the accepted section.

16. CASR subpart 21.M AP shall review the finding of compliance by the CASR 21.009 AP and refer to CASA those design requirements where an equivalent safety determination is required. DA shall be used for this purpose and the CASA response shall be complied with. The form 979 shall be updated to ensure that all applicable design requirements are addressed through exemption (CASR 21.416), equivalent safety determination (CASR 21.437(6) (b)) or finding of compliance (CASR 21.009) or a combination of them.

As this is a critical part of the approval process, the accepted section should include suitable documentation procedures to show compliance to the review.

17. CASR subpart 21.M AP shall issue the approved design data package including the ICA and flight manual changes identifying the holder of the approval, along with details of the aircraft, or the aeronautical product, as contained in the application. All design documentation shall be reviewed by another person of suitable competence prior to such approval.

The person reviewing the data need not be another AP. However, they should have adequate competency to do the task. The qualification and experience requirements shall be documented and names of the persons listed in the accepted section.

18. Design approval activity reports shall be submitted in January every year, or after one hundred approvals, whichever occurs first, or as otherwise agreed by CASA.

A suitable format of the design approval activity report shall be included in the accepted section.

19. Implications of approved modifications on other regulations such as CAR 39, CARs 37, 42ZS, CASR 21.197 shall be addressed as appropriate. Applicability of CASR Part 90 shall be reviewed.

The design approvals per subpart 21.M can potentially affect airworthiness directives, minimum equipment lists etc. Suitable prompts should be included in the procedures to alert the AP to such interactions.

20. An approval granted for a foreign or state aircraft, aircraft engine, propeller or appliance should include the following statement (or similar): 'This approval is granted under subpart 21.M of the Australian CASR. It is the responsibility of the owner/operator to determine whether this approval requires additional approval under their relevant regulations.'

For further guidance refer to CASA AC 21-08.

21. Adequate facilities shall be provided to retain the data generated and used for the approval process.

Documentation storage and back up procedures shall be detailed in the accepted section.

22. All advisory material from CASA related to the design approval process shall be reviewed and any actions taken, pursuant to the advice, recorded.

For organisations with multiple APs, the person responsible for this task shall be identified in the accepted section and records of such review kept.

23. All documents issued following a CASA surveillance shall be acquitted as per CASA policy guidelines.

For organisations with multiple APs, the person responsible to acquit the surveillance findings shall be identified in the accepted section.

24. Where there is an exemption, the conditions of the exemption shall be complied with and the document approved quoting the exemption.

4. Engineering speciality definitions

Structures

A Structures specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft structures, including materials and processes used. Structures includes: the airframe fixed structure and structural aspects of moveable control surfaces, landing gear, doors, covers, fairings and equipment mounting.

System and equipment (mechanical)

A System and Equipment (Mechanical) specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft mechanical systems and equipment, including materials and processes used. Mechanical systems and equipment include wheels, tyres, brakes, landing gear, hydraulics, pneumatics, mechanical control systems, fuel systems, pressurisation, air-conditioning, oxygen, cabin and cargo compartment interiors and materials (including flammability requirements), seats, safety equipment and mechanical aspects of powerplant installations not covered by the engine or propeller design standards (e.g. FAR 33 or FAR 35).

Systems and equipment (electrical)

An Electrical specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft electrical systems, including materials and processes used. Electrical speciality includes: electrical power generation, storage, distribution and protection systems; lighting systems; mission specific additions or modifications (night sun, night vision compatible lighting, provision of power to role equipment etc.); fire/smoke detection systems; combustion heaters; aircraft electrical bonding; data busses and multiplexing systems associated with the functioning of electrical systems; warning indicators/annunciator panels.

Systems and equipment (electrical – limited)

An Electrical – Limited specialty authorisation is to make finding of compliance for the following tasks:

1. the repair, temporary/permanent removal and subsequent re-installation of existing equipment or simple systems
2. the design of new equipment or system installations provided that any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions
3. the modification of existing equipment or system installations providing any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions.

Systems and equipment (instrument)

An instrument speciality authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft instrument systems, including materials and processes used. Instrument speciality includes: all indicating system instruments, composite indicators, multi-function displays and associated plumbing/wiring but excluding radio system indicating equipment and electrical meters; Automatic flight control systems; Integrated flight systems; Flight performance management systems; Pitot static systems; Air data systems; oxygen systems; Inertial navigation/inertial reference systems; Data busses and multiplexing systems associated with instrument systems; data recording systems including: (flight data recorder systems, health monitoring systems, engine parameter

recording systems etc); Terrain awareness and warning system (TAWS) (including ground proximity warning systems but excluding radio inputs); stall warning/indicating systems; electronically displayed check lists (including some EFB — excluding radar displays); head-up displays; synthetic vision systems; enhanced vision systems; infra-red systems; active noise and vibration cancelling systems; mission specific additions or modifications (instrument pods, camera systems etc.).

Systems and equipment (instrument – limited)

An instrument – Limited specialty authorisation is to make finding of compliance for the following tasks:

1. the repair, temporary/permanent removal and subsequent re-installation of existing equipment or simple systems
2. the design of new equipment or system installations provided that any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions
3. the modification of existing equipment or system installations providing any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions.

Systems and equipment (radio)

A Radio specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft radio systems, including materials and processes used. Radio specialty includes: communication systems (including emergency transmitters); navigation systems (terrestrial and satellite); composite indicators — excluding indicators containing gyroscopes; audio distribution systems; cockpit voice recorder systems; data busses and multiplex systems associated with radio systems; in-flight entertainment systems; radar systems (including weather radar, radio altimeter and associated TAWS inputs); transponders; collision avoidance systems; mission specific additions or modifications (telemetric systems, role equipment using active transmitters etc.); securing the radio unit within its case/rack, the inter-wiring of radio components and the bonding of all components of the radio system to the aircraft structure.

Systems and equipment (radio – limited)

A Radio – Limited specialty authorisation is to make finding of compliance for the following tasks:

1. the repair, temporary/permanent removal and subsequent re-installation of existing equipment or simple systems
2. the design of new equipment or system installations provided that any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions
3. the modification of existing equipment or system installations providing any integration to other existing aircraft systems is done in accordance with the equipment manufacturer's installation instructions.

Note: *Electrical, instrument and radio specialties:* The instrument system wiring to the electrical power supply terminates at the distribution bus and includes the circuit breaker or fuse. The instrument system wiring supplying data signals to the radio system terminates at the connection to the radio system equipment or junction box. The radio wiring to the power supply of the electrical system terminates at the radio distribution bus and includes the circuit breaker or fuse.



Software

A Software specialty authorization is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft software. The software specialty includes; Discrete software applications and operating systems installed in airborne electronic systems; and the airborne electronic hardware systems fitted with custom micro-coded (programmable) components (e.g. application specific integrated circuits (ASIC) or programmable logic devices (PLDs)).

There are three categories:

1. flight critical, (software level A and B and hardware level A and B)
2. flight non-critical, (software level C and D and hardware level C and D)
3. non flight related (IFE) (software Level E and hardware level E).

The levels identified above are those described in RTCA/DO-178B Paragraph 2.2.2 and DO-254 Table 2-1.

Engine

An Engine specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft engines, including materials and processes employed in engine design, operation and maintenance.

Propeller

A Propeller specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to the design of aircraft propellers, including materials and processes employed in propeller design, operation and maintenance.

Flight Analyst

A Flight Analyst specialty authorisation is to make findings of compliance with applicable aircraft flight requirements including performance, handling, stability and control. A Flight Analyst is responsible for ensuring that adequate flight tests are carried out and for the proper review and analysis of flight test data necessary to make findings of compliance. Flight Analysts may approve, within the limits of their appointment, compliance of the following items: aircraft performance flight test data, flight characteristics data and aircraft operating data.

Material and process

A Material and process specialty authorisation is to make findings of compliance and approve engineering reports, drawings and data relating to material and process specifications including metallic or composite materials, fasteners, fluids, resins and consumables.

Compliance Checklist

Requirement	Manual ref.	Status (RAG)	Comments
IOA section included			
CASA approved section identified - revised only after prior approval from CASA - person(s) responsible - CASA approval docs included (in annex?) - DAPM to be read in conjunction with the IOA			
Procedure to review data package from applicant - CASA approved mod/repair application form			
FMS approval procedure			
FMS - general format requirements			
FMS - Procedure for approving FMS in case of multiple 21.009 IOAH involvement			
DA procedure for restricted category			
Procedure for identifying special conditions			
Major/Minor classification to AC21-12 guidelines - DA if unresolved			
DA for major modifications			
List of major modifications for which DA need not be sent (if any)			
DA response shall be complied with - person(s) responsible			
Procedure for changing design requirements and recording on form 979			
Requirement of ICA as part of technical data			
Procedure for tests - conformity inspection - calibration of instruments - witness of tests			
ESD Procedures			
Procedures for reviewing design documentation - design document reviewers - criteria			
Statements of compliance - basis of Major/Minor classification			

Requirement	Manual ref.	Status (RAG)	Comments
- specific reg to which compliance has been found - certification - equivalent 979 forms, if any			
Regular review of CASA advisory material - persons responsible			
DAAR to be submitted at regular intervals - persons responsible			
NCN shall be acquitted - persons responsible			
Implications of repairs/mods on other regs			
Adequate facilities to retain design and approved data			
Procedure for approval under exemption			
CASA Accepted section identified - CASA to be notified of changes			
Ordinary place of business - ABN - contact details			
Reviewer names			
Forms/format for: - Mod/ Repair application - Engineering Orders - Engineering Drawings - Design Change Notices - Compliance Statements (e.g. CASA 979) - Basis for major/minor classification - Special conditions and altering design requirements - Regulatory requirements associated with flight tests - Equivalent Safety Determination - Design Approval Activity Report			
Procedures giving guidance for EO, ED, DCN, etc			
Document control proc - revision, distribution			
Doc control when approving other org docs			
Proc for handling deficiencies in approved data			

Requirement	Manual ref.	Status (RAG)	Comments
Reg data access and control			

Table 2 – Compliance Checklist

Annex D: Guidelines for CASR 21.007 and 21.007A, 21.120B, 21.009 and 21.095

1. CASR 21.007 Approval of defect as a permissible unserviceability

Regulation 21.007 is applicable for defects, including damage (for the purpose of regulation 21.007, damage is a subset of defect)

The configuration of the aircraft with the unrepaired defect must be shown to be compliant with the applicable airworthiness standard for the aircraft.

CASR 21.007 authorisations are to be limited to engineering specialities appropriate to the qualifications and experience of the AP. Eligible specialities for CASR 21.007 are limited to structures, mechanical systems, electrical systems, engines and propellers. engineering speciality definitions are provided at annex C.

2. CASR 21.007 PU – Unrepaired defect (including damage) approval process guidelines

The AP procedures manual shall contain documented processes for issuing an approval pursuant to 21.007. CASA must approve the procedures manual and subsequent amendments. The manual may be divided into a CASA approved section containing the high-level process and a CASA accepted section containing the detailed procedures and forms. The CASA approved section is not to be changed without prior approval from CASA. The CASA accepted section may be changed to suit operational requirements and a copy sent to CASA when the change is made. CASA will notify the AP within 30 days if it does not accept the change.

The following elements of the 21.007 approval process (Figure D) must be included in the CASA approved section of the AP procedures manual:

1. The application for the approval shall document:
 - (a) The applicant's name and contact details.
 - (b) The operator of the aircraft.
 - (c) The date of the application.
 - (d) The aircraft make, model and serial number and/or registration number.
 - (e) A description of the defect including the date it was discovered, the type of defect, location, size and aircraft components affected.
 - (f) The cause of the defect, if known.
 - (g) The reason for requesting the defect be approved as a PU.
 - (h) The applicable airworthiness standards for the aircraft and the design requirements relevant to the defect.
 - (i) The demonstration of compliance of the configuration with the defect to the applicable airworthiness standards. (this is typically a table listing the

relevant design requirements and the means of compliance applicable to each requirement).

- (j) A safety assessment, if applicable, carried out in accordance with the guidance provided in AC 21-28.
2. The AP shall ensure that all the required information is included in the application before proceeding with the approval.
 3. The AP must determine whether the defect is a major defect as defined by the CASR Dictionary. In addition, an unrepaired defect not shown to comply with the applicable airworthiness standards for the aircraft shall be classified as major. A major defect must not be approved as a permissible unserviceability.
 4. The AP must determine whether a major repair is required. If the defect is damage to aircraft structure, system, engine or propeller elements/components, the AP must carry out major/minor classification of the likely repair configuration in accordance with AC 21-12. Major damage or any defect that would otherwise require a major repair cannot be approved as a permissible unserviceability.
 5. The AP shall review the safety assessment against the guidance provided in AC 21-28. The process of the safety assessment is briefly outlined below. Additional detail is provided in section 4.2 and 4.3 of AC 21-28: - Classify the defect as damage to aircraft structure, aircraft system, engine or propeller elements/components, or as a system defect or as an exceedance of an operational limitation.
 6. Identify the airworthiness standards and design requirements applicable to the defect.
 7. Perform the applicable system safety assessment.
 8. Determine the potential failure condition of the defect. Hazardous and catastrophic failure conditions must not be approved as permissible unserviceabilities.
 9. Conduct an aircraft performance assessment to determine if any operational limits are required, or performance deficiencies are expected.
 10. Justify why the damage may be approved in regard to the airworthiness and design requirements using the outcome of the system safety assessment.
 11. If the relevant requirements are outside the scope of the authorisation for the AP, as defined by the conditions and limitations of the IOA, then the AP will not proceed with the approval.
 12. If the AP has been involved in preparing the compliance documents including the safety assessment, these shall be checked by an independent person with appropriate engineering experience. The check shall be certified, identifying the checker and date.
 13. The AP shall approve the PU if they are satisfied that the showing of compliance demonstrates that the configuration with the defect complies with the relevant requirements of the applicable airworthiness standards. The approval shall be certified pursuant to CASR 21.007(2) on a CASA 979 form or equivalent.
 14. The approval process should be conducted in accordance with section 4.4 of AC 21-28. The approval must also be granted in writing and must contain the following:
 - (a) The registration mark of the aircraft.
 - (b) A description of the defect.
 - (c) The limit at which the approval ceases (see section 3.7 of AC 21-28).

- (d) Any conditions associated with the approval (see section 3.8 of AC 21-28)
 - (e) The name of the individual and ADO (if applicable) granting the approval.
 - (f) The signature of the individual granting the approval.
 - (g) The provision under which the approval is granted (i.e. subregulation 21.007(2)).
 - (h) The date the approval is granted.
15. An approval activity report must be sent to CASA at a defined interval listing all approvals made. The reporting interval is to be agreed with CASA and specified in the procedures manual. It is typically defined as monthly but may be longer depending on the anticipated level of activity. The following information shall be included for each approval:
- (a) The date of the approval.
 - (b) The operator of the aircraft.
 - (c) The aircraft make, model and serial number and/or registration number.
 - (d) A brief description of the defect.
 - (e) The AP making the approval.

If no approvals are made over a reporting period, a report should still be submitted indicating no activity.

16. Procedures for amending the AP procedures manual must be specified.

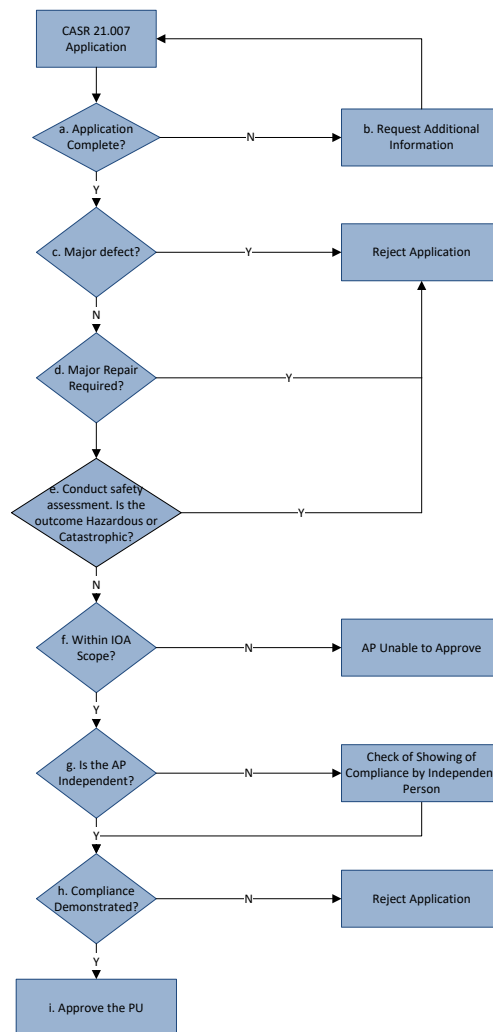


Figure 44 – 21.007 Approval process

3. 21.007A Major damage advice guidelines

The AP procedures manual shall contain procedures for making a major/minor determination pursuant to 21.007A. The following elements of the process must be included in the CASA approved section of the manual.

1. The application for the 21.007A determination shall document:
 - (a) The applicant's name and contact details.
 - (b) The operator of the aircraft.
 - (c) The date of the application.
 - (d) The aircraft make, model and serial number and/or registration number.
 - (e) A description of the damage including the date it was discovered, the type of damage, location, size and aircraft components affected.
 - (f) The cause of the damage, if known.
2. The AP shall ensure that all the required information is included in the application before proceeding with the approval.

3. The AP shall only classify damage that is within the conditions and limitations of the IOA.
4. The AP shall classify the damage in terms of major/minor. The basis for the classification shall be documented.
5. The AP will advise the applicant in writing of the determination. The form of the advice shall:
 - (a) Record the date the advice is given.
 - (b) Identify the person to whom it is given.
 - (c) Identify the aircraft by make, model and serial number and/or registration number.
 - (d) Describe or otherwise identify the damage.
 - (e) Clearly indicate whether or not the damage is classified as major.
 - (f) Identify the AP giving the advice.
 - (g) Certify the advice pursuant to CASR 21.007A.
6. A 21.007A advice activity report must be sent to CASA at a defined interval listing all advice given. The following information shall be included for each advice.
 - (a) The date of the advice.
 - (b) The operator of the aircraft.
 - (c) The aircraft make, model and serial number and/or registration number.
 - (d) A brief description of the damage.
 - (e) The classification (major or minor).
 - (f) The AP making the approval.
 - (g) If no advice is given over a reporting period, a report should still be submitted indicating no activity.

4. 21.120B - Variations to supplemental type certificates process guidelines

The following elements of the CASR 21.120B approval process must be included in the CASA approved section of the AP procedures manual. The elements have been divided into requirements for the applicant's submission and the AP approval process, also shown in Figure x CASR 120B approval process.

4.1 The application for a change in a supplemental type design shall be made in writing and include:

- a) the applicant's name and contact details
- b) the date of the application
- c) the applicable STC
- d) reasons for the change in supplemental type design including if it is as a result of a defect, malfunction, or failure per CASR 21.003.

4.2 AP approval process must include:

1. The AP shall ensure that all the required information is included in the application before proceeding with the approval.
2. The AP shall classify the change in terms of major/minor in accordance with CASA AC 21-12. The basis for the classification shall be documented. Major changes shall not be approved.
3. The AP shall identify the applicable airworthiness standard for the STC and the design requirements relevant to the change.
4. If the relevant requirements are outside the scope of the authorisation for the AP, as defined by the conditions and limitations of the IOA, then the AP will not proceed with the approval.
5. The AP shall ensure that compliance to the relevant requirements is demonstrated and that the means of compliance is documented. If the AP has been involved in preparing the compliance documents, these shall be checked by an independent person with appropriate engineering experience. The check shall be certified, identifying the checker and date.
6. The AP shall approve the changed technical data if he is satisfied that the showing of compliance demonstrates that the change configuration complies with the relevant requirements of the applicable airworthiness standard. The approval shall be certified pursuant to CASR 21.009(2) on a CASA 979 form or equivalent.
7. The AP shall certify that no feature or characteristic of the change makes the altered aircraft, aircraft engine or propeller unsafe for its intended use.
8. The change shall be approved by the AP pursuant to 21.120B(4). The form of the approval shall:
 - (a) Record the date the approval is granted.
 - (b) Identify the person to whom it is granted.
 - (c) Identify the applicable STC.
 - (d) Describe or otherwise identify the change.
 - (e) Identify the AP making the approval.
 - (f) Certify the approval pursuant to CASR 21.120B(4).

9. The AP shall identify if the minor change requires a revision to the STC certificate. For example, an approval of a change in a document that is referenced on the STC certificate by its identification and revision numbers, without an indication that any subsequent approved revision of that document is acceptable, will require a reissue of the STC certificate. If so, an application to CASA to up-issue the STC certificate must be made. The application shall include a copy of the AP finding of compliance pursuant to 21.009(2).
10. An approval activity report must be sent to CASA at a defined interval listing all approvals made. The reporting interval is to be agreed with CASA and specified in the procedures manual. It is typically defined as monthly but may be longer depending on the anticipated level of activity. The following information shall be included for each approval:
 - (a) The date of the approval.
 - (b) The applicable STC.
 - (c) A brief description of the change and reason for the change including if it is a result of a defect, malfunction or failure per CASR 21.003.
 - (d) The AP making the approval.
 - (e) If no approvals are made over a reporting period, a report should still be submitted indicating no activity.
11. Procedures for amending the AP procedures manual must be specified.

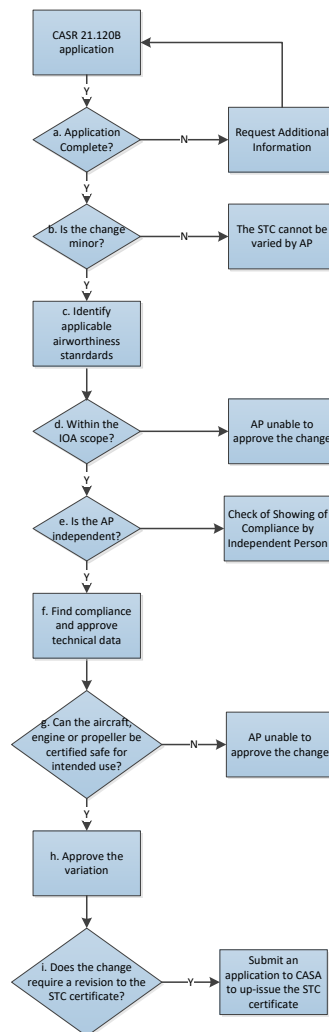


Figure 45 – CASR 120B Approval process

5. 21.009(1)(b) / 21.095 - Changes to type certificates guidelines

Each applicant for an authorisation to approve changes to the type design of a type certificate or approval of technical data under paragraph 21.009(1)(b) of the CASR shall submit a procedures manual or amendment which can be either be a separate chapter or a supplemental section to their currently approved procedures manual for their 21.009(1)(f) or regulation 21.437 of the CASR authorisation.

It is acceptable to have separate procedures for separate type certificate holders.

The procedures manual or amendment/supplement shall meet the requirements outlined below covering regulations 21.091 to 21.099 of the CASR.

CASA shall approve this procedures manual or amendments.

21.091 Applicability

The procedures manual or amendment/supplement shall state that the section is for approval of changes in type design related to type certificates for which the authorised person has a written agreement with the relevant type certificate holder/s.

The applicant shall list each type certificate holders they have agreements with that this authorisation applies too.

21.093 Classification of changes in type design

The applicant shall develop procedures for determining the classification of minor or major changes in type design.

The determination of major or minor must be made by all the engineering specialists involved in the design change and authorised under the paragraph 21.009(1)(b) of the CASR.

Regulation 21.093 of the CASR states “changes in type design are classified as minor or major. A minor change is one that has no appreciable effect on the weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the airworthiness of an aircraft, aircraft engine or propeller. All other changes are major changes.”

The following list should automatically be considered major changes in type design, but is not exhaustive,

1. change to any information contained in the type certificate data sheet for the aircraft, engine or propeller
2. the issue of an amendment to an approved section of a flight manual
3. changes to primary structure, primary structural elements or any critical structure
4. changes in any aircraft system configuration
5. effects aircraft handling and stability
6. changes to the airworthiness limitations
7. changes in maintenance inspection requirements
8. changes to certification maintenance requirements.

In developing the necessary procedures it is important to understand that there will be changes in type design that are clearly minor or major and others that will require some form of analysis to classify them. CASA AC21-12 should be utilised to make the major/minor determination.

If it is not clear if a change is major or minor, then CASA is to be contacted for a determination. CASA will use CASA AC 21-12 guidance material to make the determination

Any determination of major or minor is to be documented.

The procedure should also cover any major change that is sufficient to warrant the issue of a type certificate as defined by regulation 21.019 of the CASR.

21.095 Approval of minor changes in type design

The applicant is to develop procedures for approval of a minor change in type design. These procedures shall cover

1. application requirements from the type certificate holder, which must be in writing
2. reason for the change in type design. If it is as a result of a defect, malfunction, or failure per regulation 21.003 of the CASR, then CASA is to be notified
3. data to be submitted by the applicant to the authorised person. This shall include the compliance statement that meets the requirements of regulation 21.101 of the CASR, any substantiation and descriptive data
4. written confirmation of how the minor determination was made
5. approval procedures that the paragraph 21.009(1)(b) and regulation 21.095 of the CASR will follow when making the appropriate approval

6. submission of the minor design change documentation to CASA for inclusion in the type design as required by regulation 21.095 of the CASR at required intervals agreed to by CASA
7. retention of minor change approval and related documentation
8. approval of any changes to technical data must be under paragraph 21.009(1)(b) of the CASR by all paragraph 21.009(1)(b) of the CASR authorised persons involved in the minor change and must be done on a CASA form 979
9. overall approval for the minor change shall be done by the regulation 21.095 of the CASR authorised person
10. if testing is required to demonstrate and or find compliance the procedures must cover compliance with regulations 21.033, 21.035, 21.039, 21.053 of the CASR, and validation of the conformity inspections and test witnessing by the paragraph 21.009(1)(b) of the CASR specialist requesting the testing
11. if other CASRs are affected as a result of the change, such as Part 90 of the CASR, then the appropriate approvals must be sought also
12. reference should be made to CASA Type Certification Procedures Manual and CASA AC 21-13 and 21-15 when developing these procedures.

21.097 Eligibility for approval of major changes in type design

If the authorised person is involved in the submission of data for approval on behalf of the type certificate holder, then procedures may be included in this section that will ensure all the required information/data is sent to CASA for approval. The reason that CASA engages in the approval of a major change in type design of a type certificate is that it may be necessary to reissue the type certificate. These procedures shall include:

1. written application from the type certificate holder
2. reason/s for the change in type design. If it is as a result of a defect, malfunction, or failure per regulation 21.003 of the CASR, then CASA is to be notified
3. a project specific certification plan needs to be raised and submitted to CASA for agreement before proceeding with the development of the major change in type design
4. reference needs to be made to CASA's Type Certification Procedures Manual, and CASA AC 21.13 and 21.15
5. substantiating data
6. descriptive data for inclusion in the type design
7. compliance statement demonstrating that the change in type design complies with the applicable airworthiness standard as required by regulation 21.101 of the CASR
8. If testing is required to demonstrate and or find compliance the procedures must cover compliance with regulations 21.033, 21.035, 21.039 and 21.053 of the CASR.

Note: Approval of a major change in the type design of an aircraft engine is limited to the specific engine configuration upon which the change is made unless the applicant identifies in the necessary descriptive data for inclusion in the type design the other configurations of the same engine type for which approval is requested and shows that the change is compatible with the other configurations.

21.098 Issue of approval of major change in type design

This section of the procedures manual shall state that all major changes in type design will be sent to CASA for approval.

The procedures should also include the following:

1. written application from the type certificate holder
2. reason for the change in type design. If it is as a result of a defect, malfunction, or failure per regulation 21.003 of the CASR, then CASA is to be notified
3. substantiating data
4. the project specific certification plan
5. descriptive data for inclusion in the type design
6. compliance statement demonstrating that the change in type design complies with the applicable airworthiness standard as required by regulation 21.101 of the CASR
7. written application to CASA requesting approval of the major change in type design
8. if compliance finding testing was required to demonstrate and or find compliance the data that covers regulations 21.033, 21.035, 21.039 and 21.053 of the CASR must be included in the submission.

21.099 Required design changes

Procedures will need to be included to cover the following,

1. If an airworthiness directive is issued for an aircraft, aircraft engine or propeller, and CASA considers that design changes are necessary to correct the unsafe condition of the aircraft, aircraft engine or propeller, the holder of the type certificate for the aircraft, aircraft engine or propeller must, on CASA's request, submit appropriate design changes for approval to CASA.
2. If approval is granted for design changes mentioned in a), the holder of the type certificate for the aircraft, aircraft engine or propeller must, on request by the operator of an affected aircraft, aircraft engine or propeller previously certificated under the type certificate, give to that operator the descriptive data covering the design changes.
3. In a case where there are no current unsafe conditions, but CASA or the holder of the type certificate is satisfied through service experience that changes in type design will contribute to the safety of the aircraft, aircraft engine or propeller, the holder of the type certificate may submit appropriate design changes for approval. Upon approval of the changes, and on request by an operator of the same type of aircraft, aircraft engine or propeller, the manufacturer must give information on the design changes to the operator.

Issuing the instrument of appointment

An initial application for an instrument of appointment may only result in an authorisation to approved technical data under paragraph 21.009(1)(b) of the CASR. The instrument will follow the current template that is being used and will only cover the specialities that have been requested by the applicant and have been found to be supported by the evidence submitted.

An instrument of appointment to approve the minor change in type design of a type certificate under regulation 21.095 of the CASR will be issued after the applicant has provided the appropriate evidence. The instrument will follow the current template that is being used.