



FATIGUE RISK MANAGEMENT SYSTEM PROCESS GUIDE

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FATIGUE RISK MANAGEMENT SYSTEM PROCESS GUIDE

Preface

Fatigue Risk Management

This guide containing guidance material intended to assist BCAA officers and operators in carrying out their respective responsibilities and may be made available to the public for information purposes only.

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Should always refer to the applicable provisions of the Regulations and rather than this guide, to ascertain the requirements of, and the obligations imposed by or under, the civil aviation regulation.

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Guide Preface

Foreword

As a contracting state of ICAO, the BCAA must ensure that its decision-making processes are effective, fair, timely, transparent, consistent, properly documented and otherwise in accordance with the requirements of the law.

This preface and the following Introduction, explains the way in which the policy and processes set out in this manual are to be used by all personnel of the operator and BCAA when making decisions in the performance of their functions, the exercise of their powers and the discharge of their duties. It also explains the processes to be followed if it appears that a departure from policy is necessary or appropriate.

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INTRODUCTION

Purpose

The purpose of the FRMS application process guide is to:

- Provide the applicant an opportunity to discuss their proposed operation with BCAA, obtain advice on the requirements and the assessment process which applies to FRMS.
- Provide detailed information on the FRMS application process, including the conduct of a pre-application meeting.

Context

Flight crew member fatigue is a risk which must be managed by all operators by complying with ANTR OPS 1; Subpart-Q. The regulation which provides operators the option to develop and operate to a BCAA approved Fatigue Risk Management System (FRMS).

An operator may apply to BCAA for approval to implement a FRMS for all or part of its operations in accordance with the Subpart-Q of ANTR OPS 1 & CAP 34. BCAA has adopted ICAO's Standards and Recommended Practices (SARPs) in developing the CAP 34. BCAA FRMS policy aligns with ICAO guidelines, the ICAO FRMS Manual for regulators and FRMS Implementation Guide for Operators are available from the ICAO website.

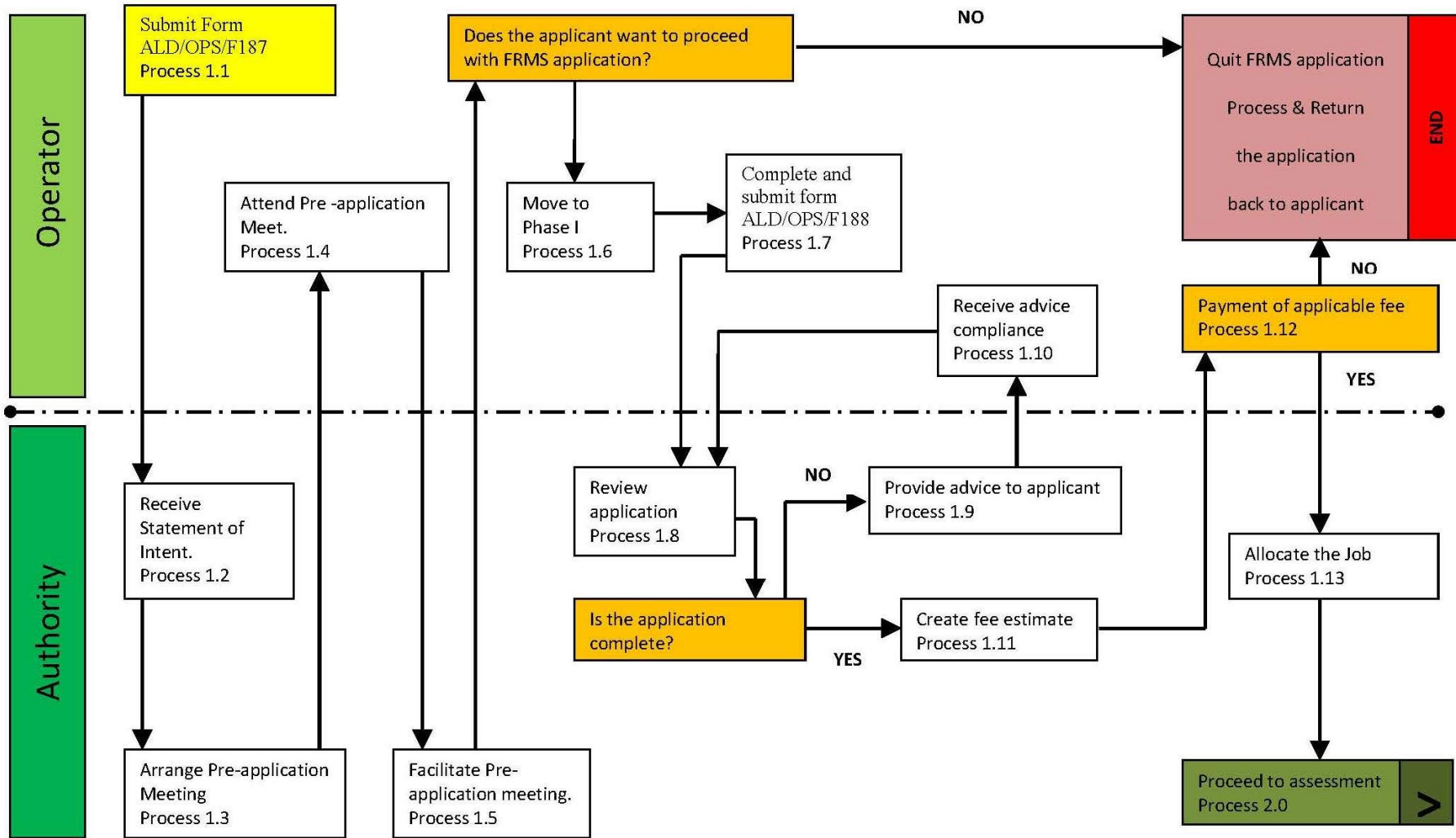
To be granted an approval to operate under a FRMS, an organisation must demonstrate to BCAA's satisfaction that it complies with legislation and has all required processes in place to effectively manage the operational risk of reduced alertness.

Forms and checklists referred to in this guide are published on the MTT website (www.mtt.gov.bh).

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1.0 STATEMENT OF INTENT AND APPLICATION

Process Map



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Process Steps

1.1. Submit Form No. ALD/OPS/F187 – Statement of Intent to Request BCAA Approval for a FRMS

The **Applicant** will:

- a. Review Subpart – Q(FTL) of ANTR OPS 1 and consider in detail whether their operation can be conducted within the regulation.
- b. Complete Form No. ALD/OPS/F187 – Statement of Intent to Request BCAA Approval of a FRMS and submit to the BCAA together with the requirements analysis and the initial FRMS implementation plan as outlined in the form.

***Note:** Before attending the pre-application meeting, BCAA expects the applicant to have considered their operation be conducted within the requirements of FRMS. BCAA requires the AOC holder to have done the requirements analysis prior to BCAA conducting a pre-application meeting. The requirements analysis of the operator will enable BCAA to provide the appropriate advice on a proposed FRMS operation.*

1.2. Receive Statement of Intent

- a. Receive the Form ALD/OPS/F187 and supporting documentation.

1.3. Arrange a pre- application meeting

The **BCAA** shall:

- a. Identify staff required to assess the application and determine the availability of the proposed staff.
- b. Review the details of any information submitted by the Applicant.
- c. Identify the scope of the meeting, e.g. who (areas of discipline) needs to attend the meeting, availability of BCAA staff, matters for clarification, etc.
- d. Schedule the meeting.
- e. Advise the Applicant of the schedule and venue of the meeting.
- f. Provide the Applicant the following:
 - Agenda - Guidance on the items to be covered in the agenda is in the Fatigue Risk Management System Handbook
 - List of documentation required for the meeting

1.4. Attend the pre-application meeting

The **Applicant** will:

- a. Ensure that FRMS manager and/or the FRMS implementation team attends the meeting (if so nominated).

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- b. Ensure all necessary documentation as stipulated by BCAA is brought to the meeting.

1.5. Facilitate the pre-application meeting

The **BCAA** will:

- a. Conduct the meeting as outlined in the FRMS Handbook.
- b. Ensure the Applicant understands the requirements of the FRMS approval process and has an appreciation of the resources that could be involved.
- c. Provide a copy of Form No. ALD/OPS/F189 FRMS Assessment Checklist. The operator shall use the operator's portion of the check list for onward submission to BCAA.
- d. Review and discuss the implementation plan and determine the steps to move forward.
- e. Interview the nominated FRMS manager to determine suitability for the role. Provide advice on any additional requirements expected for the role.
- f. Take minutes of the meeting including the outcome of the interview with the FRMS manager.

***NOTE:** The BCAA Inspector/s must ensure that the Applicant clearly understands the trial FRMS implementation cannot commence until BCAA is fully satisfied that the FRMS documentation and processes are adequate and robust and fully in accordance with the ICAO guidance material.*

The informal interview of the FRMS manager is to determine their training and qualifications. During the development of the FRMS further evidence may be requested by the BCAA Inspector to assure the nominated person has the ability to manage the FRMS appropriately.

Does the applicant want to proceed with the FRMS application?

The **Applicant** must decide whether or not they wish to continue with the FRMS application.

1.6. Operator moves into Phase 1- Planning

The **Applicant** must:

- a. Conduct a gap analysis
- b. Develop policy and documentation
- c. Create a functional group that is responsible for coordinating the fatigue management activities within the organisation, e.g. Fatigue Safety Advisory Group (FSAG).
- d. Ensure ongoing communication is established and buy in from all FRMS stakeholders is, or being, achieved.

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1.7. Complete and submit Form No. ALD/OPS/F188 Application for Approval of a FRMS

On completion of Phase 1, the **Applicant** will:

- a. Complete and submit Form No. ALD/OPS/F188.
- b. Send to BCAA the signed Form together with all required supporting documentation as outlined in the application form and as discussed in the pre-application meeting.

NOTE: At this stage, BCAA requires the operator to have undertaken preparatory actions which include:

- Designation of an FRMS Manager and other personnel with the proper authority
- Ensuring that they have gained or is gaining adequate knowledge
- Allocation of resources to support FRMS development

1.8. Review the application

BCAA will:

- a. Receive the application and supporting documentation.
- b. Review the application form.

Is the application complete?

BCAA will ensure the application form has been completed and correct in all respect.

1.9. Provide advice to Applicant if any shortcomings observed in the application.

- a. Provide written advice to the Applicant of the deficiencies and request Applicant to address the deficiencies.

1.10. Operator Receive Advice

The **Applicant** will:

- a. Provide required information and making good the deficiencies to BCAA if they wish to continue with their application.

Go to 1.9 Review the application

BCAA will reject the application:

- a. If the requisite fee and/or documents are not received within 30 days of the deficiency reporting, send a reminder to the Applicant offering an extension for re-submission of documents.

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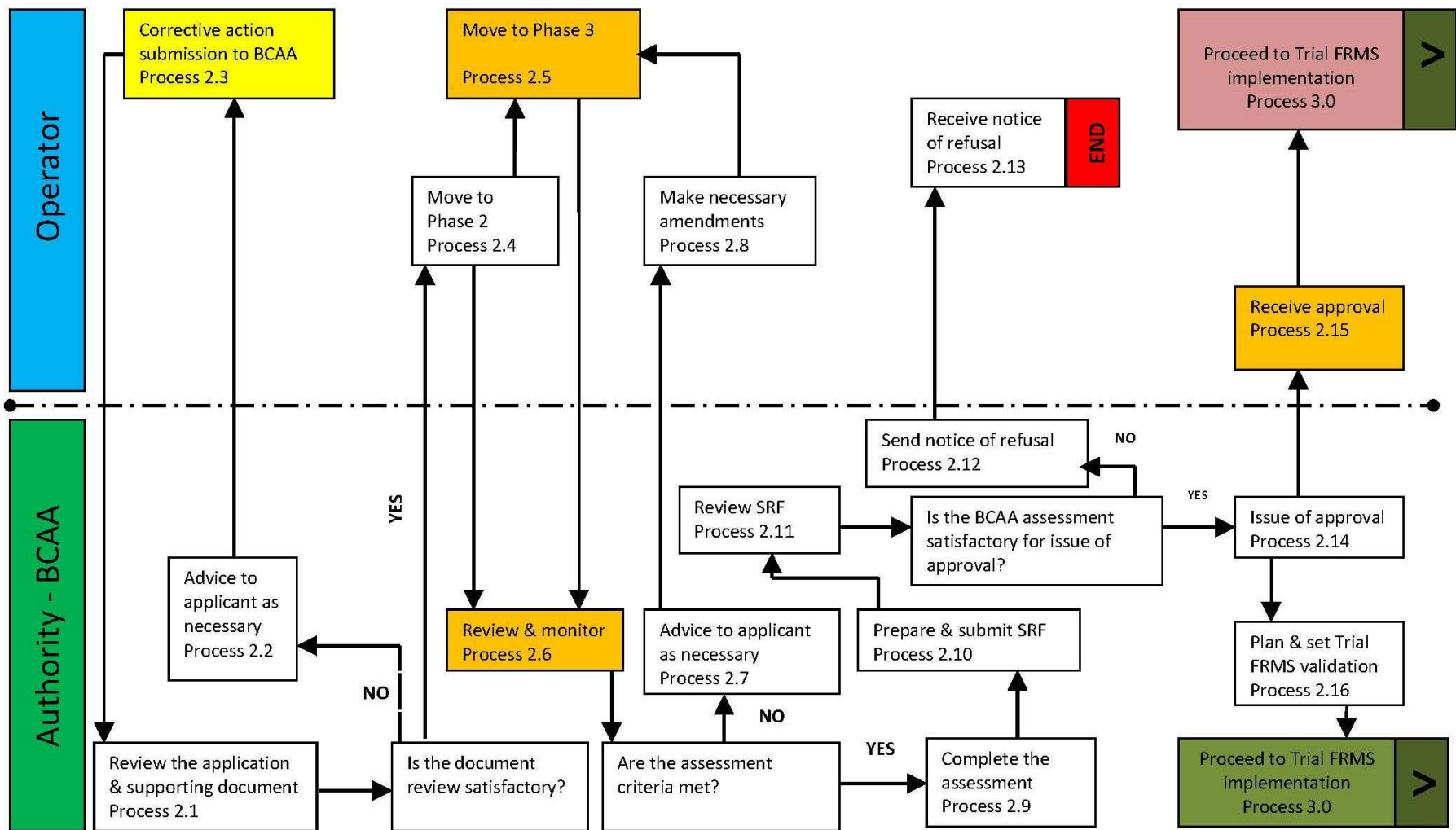
- b. Cancel the application if the Applicant has not made any payment and/or submitted requested documents within the prescribed time.
- c. End FRMS Process.

If review is satisfactory, BCAA will accept the application for the trial FRMS assessment process as explained in Process sequence 2.0

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2.0 ASSESSMENT TO APPROVE A TRIAL FRMS IMPLEMENTATION

Process Map



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Process Steps

2.1. Review the application and supporting documentation

The **BCAA** shall:

- a. Check the required FRMS documentation for completeness.
- b. Review the Applicant's gap analysis, initial FRMS documents or draft manual, FRMS policy statement with safety objectives, the detailed implementation plan.

NOTE: At this stage, the BCAA Inspector may also need to conduct site inspections and/or interviews with key FRMS personnel.

2.2. If the document review not satisfactory, BCAA shall provide advice to applicant

- a. Provide written advice to the Applicant of any deficiencies and request Applicant to address the deficiencies.

2.3. Respond to BCAA with corrective action

The **Applicant** must:

- a. Address the deficiencies and provide BCAA updated documentation.

2.4. Operator moves into Phase 2 – Implement FRM processes

The **Applicant** must:

- a. Identify fatigue hazards (reactive), and conduct risk assessment and mitigation strategies.

The **BCAA** may:

- a. Review and monitor implementation of reactive FRM processes.

2.5. Operator moves into Phase 3 – Implement proactive and predictive processes

The **Applicant** must:

- a. Identify fatigue hazards (proactive and predictive); conduct risk assessment and mitigation strategies.
- b. Commence validating components of the FRM processes as soon as such components are ready for validation (this may be achieved by running the proposed FRM processes while still operating to the relevant prescriptive rule set).
- c. Finalise project plan place to be ready to commence the trial.
- d. Finalise processes ready for the trial.
- e. Complete required FRMS training activities to support the trial.
- f. Ensure all identified issues are corrected as identified by the BCAA Inspector.

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NOTE: Some training may be ongoing during the trial FRMS.

2.6. Review and monitor

The **BCAA** shall:

- a. Review and monitor implementation of proactive and predictive FRM processes.
- b. Conclude review of the completed Form - FRMS Assessment Checklist against the operator's FRMS documents for confirmation that the operator has met all the requirements at this stage.
- c. Complete the relevant items in Form - Assessment Checklist. When satisfied with an individual component of the FRMS Manual, mark the Form as satisfactory.
- d. Establish the requirements of the safety assurance processes that need to be met prior to the commencement of the trial FRMS.
- e. Advise applicant on any changes required to Applicant's FRMS documentation.
- f. The **BCAA** will assess the resulting FRMS document and determine if the Applicant can commence trial FRMS implementation

2.7. Provide advice to Applicant based on review results

The **BCAA** will:

- a. Provide written advice to the Applicant of any deficiencies and request Applicant to address the deficiencies.

2.8. Make amendments

The **Applicant** must:

- a. Make the necessary adjustments to their reactive, proactive and predictive processes as required and its documentation as required by BCAA.

2.9. Complete the assessment

The **BCAA** will:

- a. Assess the final FRMS document.
- b. Ensure all necessary checklists are completed and signed.

2.10. Prepare SRF (Standard Recommendation Form) – Form No. ALD/OPS/F190

The **BCAA Project Team Member** will:

- a. If recommendation is to issue an approval, review and finalise Certificate of Approval.

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NOTE: *If the recommendation is to issue an approval for the conduct of the trial FRMS, the BCAA Inspector also needs to determine a trial program and timeframe for the commencement and end of the trial (see FRMS Handbook).*

In the event the recommendation is to refuse the conduct of a trial FRMS, the BCAA must notify the applicant of this decision before finalising the SRF. The BCAA, through the SRF, must also provide the statement of reasons for the refusal to issue.

2.11. Review SRF and prepare documentation for approval

- a. Review the recommendation, using the FRMS application, to ensure the SRF is reflecting what was applied for and the recommendation outlines BCAA’s decision to issue or not issue the authorisations requested.
- b. Ensure all necessary details in the recommendation are complete.
- c. Prepare a revised estimate (if required) to cover the next stage of the assessment process.
- d. Prepare the Certificate to Approve Conduct of a Trial FRMS Implementation or Notice of Refusal along with all required information, using the FRMS Instruction Sheet as a guide. The package will include fee verification, SRF and cover letter.

The **BCAA shall:**

- a. Review SRF, final certificate and other supporting documents.
- b. Be satisfied that the Applicant has met the requirements for the issue of an certificate of approval of the conduct of the trial FRMS implementation.

NOTE: *The BCAA Delegate must be satisfied that the proposed activities as outlined in the application and supporting documentation meet all the safety and legislative requirements.*

Is the BCAA satisfied to issue the certificate of approval?

The **BCAA Delegate** must be satisfied that the Applicant meets all requirements before granting the approval. If not satisfied, send notice to operator. If satisfied, go to process 2.14 for the Approval

2.12. Send Notice of Refusal

The **BCAA** will:

- a. Discuss the issues and BCAA’s planned course of action.
- b. Send the Notice of Refusal and other relevant documents to the Applicant.
- c. Perform other administrative tasks required to close the job.

2.13. Receive Notice of Refusal

The **Applicant** will:

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- a. Receive Notice of Refusal.

End of Process

2.14. Issue of Approval

The **BCAA shall**:

- a. Prepare for Issue the Certificate of Approval, after having conformed to all requirements.
- b. Send the Certificate of Approval and other relevant documents to the Applicant.
- c. Perform all administrative process to continue the job into the next stage of the assessment.

2.15. Receive the Approval

The **Applicant will**:

- a. Receive the Approval.
- b. Proceed to “3.0 Trial FRMS Implementation and Validation”.

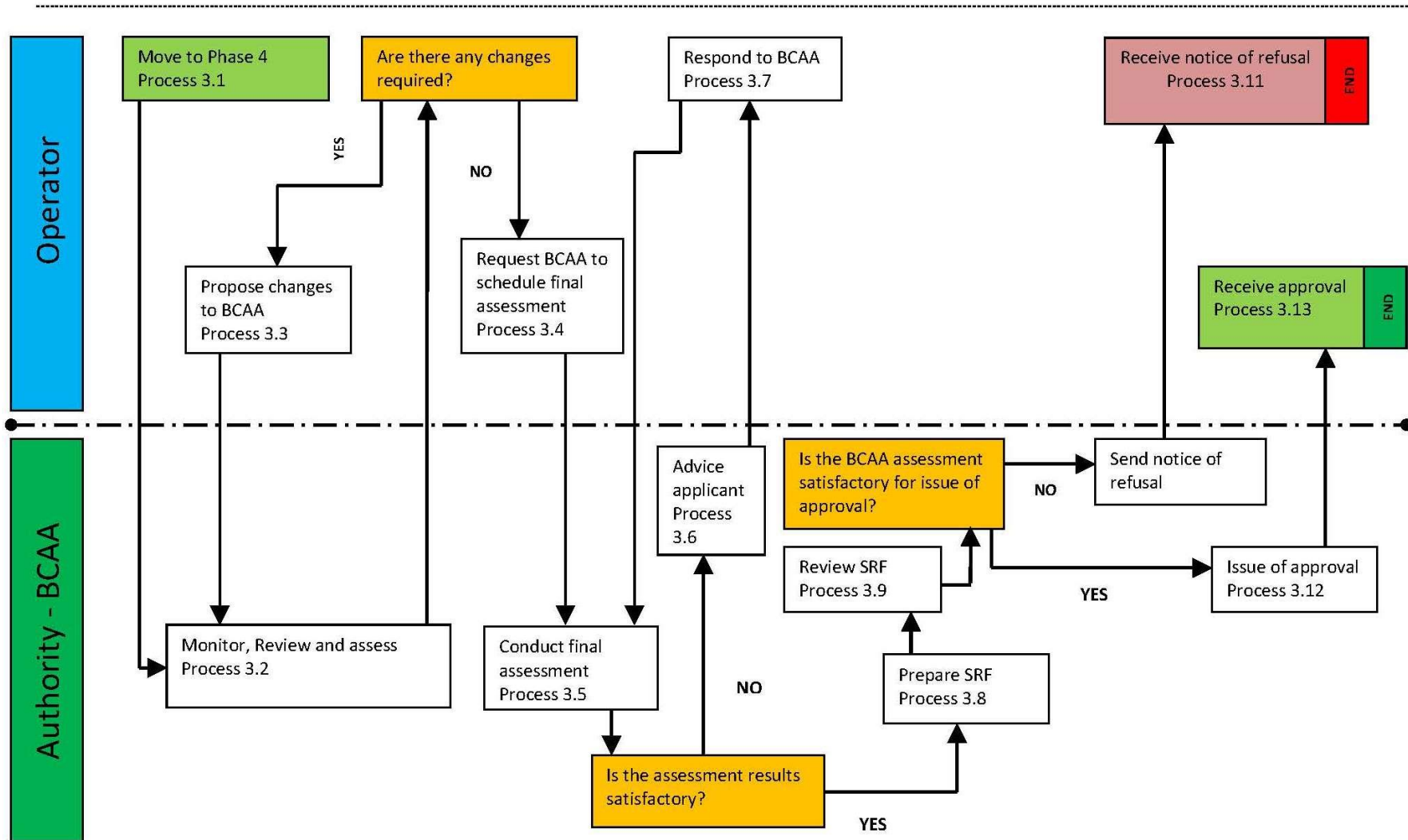
2.16. Plan and set Trial FRMS validation

The **BCAA shall** Proceed to “3.0 Trial FRMS Implementation and Validation”.

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3.0 TRIAL FRMS IMPLEMENTATION AND VALIDATION

Process Map



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Process Steps

3.1. Operator moves into Phase 4 – Implement safety assurance processes

The **Applicant** will:

- a. Implement the trial FRMS.
- b. Monitor the trial and conduct continuous improvement and safety assurance.
- c. Maintain regular contact with BCAA on the progress of the trial against the implementation plan.

3.2. Monitor, review and assess

The **BCAA** will:

- a. Monitor the progress of the trial against the trial FRMS implementation plan.
- b. The BCAA Inspector must conduct the following as part of the regulatory milestone assessment:
 - Regular visits
 - Review of information provided by the operator (generated by applied FRMS model)
 - Assessment of documentation for completeness and alignment with actual processes
 - Evaluate the operator's performance against the agreed safety performance indicators
- c. Interview of key FRMS personnel and flight crew members as required.
- d. Maintain regular communication with the operator.
- e. Assess and approve any proposed changes to the FRMS.
- f. Facilitate amendments to the trial FRMS conditions and provide advice to the Applicant on the changes.

The **Applicant** must determine any changes required for continuous improvement and safety assurance

3.3. Submit the proposed changes to BCAA

The **Applicant** must:

- a. Provide to BCAA for review any amendments required to the FRM documentation.

3.4. Request BCAA to schedule final assessment

On completion of the trial, the **Applicant** will:

- a. Request BCAA to schedule assessment for the approval of a full FRMS implementation.

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- b. Review and amend as necessary, the FRM manual and company policy statement, documents, FRM systems, records etc.
- c. Update the compliance statement section of the FRMS assessment document.
- d. Submit final documents to BCAA.

NOTE: *The final assessment can be initiated by BCAA in consideration of the trial period approaching expiration without contact from the operator.*

3.5. Conduct final assessment

The **BCAA Project Team Member** will:

- a. Conduct final assessment against criteria outlined in the FRMS Handbook.

The **BCAA** will determine if the Applicant has satisfactorily met the requirements for an approval of a full FRMS implementation.

If not satisfied go to “3.6 Provide advice to Applicant”, If satisfied go to “3.8 Prepare SRF”.

3.6. Provide advice to Applicant

The **BCAA Project Team Member** will:

- a. Provide written advice to the Applicant of any final deficiencies and request Applicant to address the deficiencies.

3.7. Respond to BCAA with corrective action

The **Applicant** will:

- a. Address the deficiencies observed by BCAA.
- b. Provide required documentation or update BCAA in a timely manner.

Go to 3.5 Conduct final assessment

3.8. Prepare SRF

The **BCAA Project Team Member** will:

- a. Ensure all necessary checklists are completed and signed.
- b. Review and finalize Certificate of Approval.
- c. Complete an SRF.

NOTE: *On submission of SRF by the designated inspector of the FRMS project team, not recommending the full FRMS, BCAA will notify the applicant of the refusal and reason for refusal.*

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3.9. Review SRF and prepare documentation

BCAA must:

- a. Review the recommendation, using the FRMS application, to ensure the SRF is reflecting what was applied for and the recommendation outlines BCAA’s decision to issue or not issue the authorisations requested.
- b. Ensure all necessary details in the recommendation are complete.
- c. Prepare the Certificate of Approval of a Full FRMS Implementation or Notice of Refusal along with all required information.

The **BCAA shall:**

- d. Review SRF, final certificate and other supporting documents.
- e. Be satisfied that the Applicant has met the requirements for the issue of a certificate of approval.

***NOTE:** The BCAA must be satisfied that the proposed activities as outlined in the application and supporting documentation meet all the safety and legislative requirements.*

The **BCAA** must be satisfied that the Applicant meets all requirements before granting the approval. If not satisfied go to “3.10 Send Notice of Refusal”, If satisfied go to “3.12 Issue the Certificate of Approval”

3.10. Issue Notice of Refusal

The **BCAA** will:

- a. Discuss the issues and BCAA’s planned course of action
- b. Send Notice of Refusal to Issue the Approval and other documents.
- c. Perform other administrative tasks required to close the job.

3.11. Receive Notice of Refusal

The **Applicant** will:

- a. Receive Notice of Refusal.

End of Process

***NOTE:** The operator must discontinue operations under their proposed FRMS.*

3.12. Sign the Certificate of Approval

The **BCAA shall:**

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- a. Prepare the Certificate of Approval and other documents requiring delegate's signature.
- b. Send the Certificate of Approval and other relevant documents to the Applicant.

3.13. Receive Certificate of Approval

The **Applicant** will:

- a. Receive Certificate of Approval.