



APPLICATION FOR ELECTRONIC FLIGHT BAG (EFB) APPROVAL

Applicants are strongly advised to read the 'EFB Notes for Completion' before completing the form.

Please complete the form in BLOCK CAPITALS using black or dark blue ink.

This form is designed to elicit all the required information from those operators requiring approval for the use of an EFB System in place of, or as an alternative to paper-based information. The completed form, matrix and supporting documentation should be submitted to the Flight Operations Inspectorate at the address listed in the 'Notes for Completion'.

Section I	Page 1	Operator/Airframe Details	Completion mandatory
Section II	Page 3	EFB Notes For Completion	
Section III	Page 4	Signature Block	Completion mandatory
Section IV	Pages 5 to 7	Operator's EFB Submission Matrix	Completion mandatory

SECTION I OPERATOR / AIRFRAME DETAILS

1 Applicant Details - required for all Approval requests		
Registered Company Name (in full):.....		
Company / AOC Number:		
Country of Company Registration:.....		
Registered Office Address:.....		
.....		
Telephone:..... Fax:.....		
E-mail:.....		
Trading Name: (if applicable).....		
Trading Address (primary site):		
.....		
Website address:		
2 Aircraft Details - required for all Approval requests		
Aeroplane type(s) or fleets (if a fleet has more than one variant, complete second column).		
Aeroplane Type	Aeroplane Series	Registration

3 Systems Description	
Computing Device hardware specification (Type / Model) & Manufacturer	
Operating System specification & Manufacturer	
Data connectivity with other aircraft systems	
Mounting device details	
Tasks to be performed by the EFB	
- Aircraft Performance Applications	NO <input type="checkbox"/> YES <input type="checkbox"/> If YES list performance modules that are required to be used:
- Electronic Manuals and Documents	YES <input type="checkbox"/> NO <input type="checkbox"/> If YES list electronic manuals and documents to be loaded:
- Electronic Navigation Charts without display of aircraft/own-ship position	YES <input type="checkbox"/> NO <input type="checkbox"/> (If YES = Type B software application.)
- Electronic Navigation Charts with display of aircraft/own-ship position	YES <input type="checkbox"/> NO <input type="checkbox"/> (If YES = Type C software application.)
- Electronic Checklist	YES <input type="checkbox"/> NO <input type="checkbox"/>
- Electronic Aircraft Technical Log	[If the ATL is used to fulfil the EU-OPS 1.1071 requirements it must be compliant with Part M paragraph M.A.306] YES <input type="checkbox"/> NO <input type="checkbox"/>
- Airport Moving Map Display (AMMD) with ownship position	YES <input type="checkbox"/> NO <input type="checkbox"/>
Administrator and user selectable options (Give Details)	
Hardware Class	CLASS 1 <input type="checkbox"/> CLASS 2 <input type="checkbox"/> CLASS 3 <input type="checkbox"/> Note: Class 2 and 3 require Airworthiness approval. Attach AFM supplement or STC as applicable.
Software type	TYPE A <input type="checkbox"/> TYPE B <input type="checkbox"/> TYPE C <input type="checkbox"/>
Data transfer	USB <input type="checkbox"/> Bluetooth <input type="checkbox"/> CD/DVD <input type="checkbox"/> Firewire <input type="checkbox"/> Serial <input type="checkbox"/> Parallel <input type="checkbox"/> Wifi <input type="checkbox"/> Wifi + 3G <input type="checkbox"/>
Usage of EFB	Flight Crew <input type="checkbox"/> Cabin Crew <input type="checkbox"/> Ground only <input type="checkbox"/> Cruise only <input type="checkbox"/> All phases of flight <input type="checkbox"/>

SECTION II EFB NOTES FOR COMPLETION

1 Applicability

Applications from operators to use an EFB system will be considered on a case by case basis.

SCAA will grant an operational approval to the applicant operator when the operator has shown compliance with the relevant sections of AMC 20-25.

The operator is required to conduct an operational evaluation test prior the start of operation and submit a final EFB operational report to SCAA.

System demonstration and operational evaluation will have to be demonstrated on the ground and/or during a simulator session and/or an observation flight. This would depend on the intended use of the EFB System.

Mounting devices, Class 2 and 3 EFBs require Airworthiness approval. The Airworthiness Section will evaluate all maintenance/airworthiness factors and advise the Flight Operations Inspectorate when Airworthiness approval has been granted.

Type A applications hosted in Class 1 EFB can be used by properly trained pilots when exercising their privileges and without the need for any notification or application for operational approval. In all other cases, before using an application hosted on EFB, operators shall apply to the SCAA for operational approval. The evaluation will be conducted when the system is based on a class 1 or 2 EFB and only hosts:

(a) Type A applications; and/or

(b) Type B applications belonging to the list hereafter:

(i) Document Browser displaying the following documents, interactive or not, or not in pre-composed format, and not driven by sensed aircraft parameters:

- The manuals and additional information and forms required to be carried by

Regulations such as:

- The Operations Manual (including the MEL and CDL);
- Aircraft Flight Manual/Supplements;
- The Operational Flight Plan;
- The aircraft continuing airworthiness records, including the technical Log;
- Meteorological information including with graphical interpretation;
- ATS Flight Plan;
- NOTAMs and AIS briefing information;

(ii) Electronic aeronautical chart applications including en-route, area, approach, and airport surface maps including panning, zooming, scrolling, and rotation, centring and page turning but without display of aircraft/own-ship position.

(iii) Applications that make use of the Internet and/or other aircraft operational communications (AAC) or company maintenance-specific data links to collect, process, and then disseminate data for uses such as spare parts and budget management, spares/inventory control, unscheduled maintenance scheduling, etc.

(iv) Cabin-mounted video and aircraft exterior surveillance camera displays.

2 Operator's EFB Submissions Matrix

The application form and matrix must be completed with the support of EASA NPA 2012-02.

Applicants should complete Column 4 of this matrix in full. A completed matrix and application form must be completed for different aircraft types and/or EFB model computing device.

All relevant documentation must be submitted in paper format. These should include:

- Applicable extracts from the Operations Manual Parts A, B, D, Compliance Monitoring Manual and MEL;
Note: Instead, a dedicated 'EFB Policy and Procedures Manual' can be created to include all EFB relevant information, policies and procedures. This manual will then be considered as part of the Operations Manual suite of documentation. The manual must be first approved by the Respective PH and Compliance Monitoring Manager.
- EMI demonstration report;
- Environment testing;
- Details of Operational Risk Analysis conducted;
- Validation result for Type B software applications;
- AFM supplement and/or STC as applicable for mounting device, Class 2 and Class 3 EFBs;
- Amendments to maintenance programme where applicable;
- Instructions for continued Airworthiness when applicable;
- Aircraft Maintenance Manual Supplement when applicable.

The forms must be signed by the responsible Post Holder and when stated by the Quality Manager.

Failure to complete the EFB Submissions Matrix may result in a delay in processing your application.

3 Documents to be included with the application	
<p>Copies of all documents referred to in Column 4 of the matrix should be included when returning the completed application form to the Seychelles Civil Aviation Authority. Original documents should not be sent, photocopies are sufficient. Do not send complete manuals, only the relevant sections/pages will be required.</p> <p>Failure to include all relevant documentation may result in a delay in processing your application.</p>	
4 Submissions and Enquiries	
<p>Address for submissions:</p> <p>Seychelles Civil Aviation Authority Safety Regulation Flight Operations and Flight Crew Licensing Inspectorate Seychelles International Airport P.O Box 181 Victoria Seychelles</p>	<p>Contact details for enquiries:</p> <p>Tel : +248 438 4271 Fax: +248 438 4269 E-mail: ops@scaa.sc</p>

SECTION III SIGNATURE BLOCK

<p>Signature:</p> <p>Name (BLOCK LETTERS):</p> <p>Appointment:</p> <p>Date:</p>
<p>Please note that a minimum of 60 working days will normally be required to process and issue an EFB approval - if data is missing or omitted the process may take considerably longer.</p>

SECTION IV APPLICANT'S EFB SUBMISSIONS MATRIX

Main Heading	Expanded areas to be addressed by application	Sub-requirement	Operator's Operations Manual Reference or Document Reference
1.0 Airworthiness Certification Documentation	Approval of Installation and Hardware Aircraft Type Definition, Major/Minor Modification, Supplemental Type Certificate, Service Bulletin)		
	AFM/AFM Supplement Reference for Class 2 & Class 3 EFB		
	Instructions for Continued Airworthiness		
	Aircraft Maintenance Programme for Class 2 & Class 3 EFB		
2.0 Equipment Safety Compliance Statements	Computing device internal power supply and battery specification		
	Compliance demonstration for Lithium batteries		
	Is onboard power supply to be used (including battery charging)? How long is the expected battery time without charge: Is the aircraft power source certified to be used In-flight and/or on Ground		
	Rapid depressurisation test results for the EFB computing device		
	Electromagnetic Interference (EMI) test results for the EFB computing device		
	3.0 EFB Administrator (EFBA)	EFBA reporting to FOPH	
Training and Qualifications of EFBA			
Responsibilities of EFBA			
EFB Policy & Procedures Manual?			

Main Heading	Expanded areas to be addressed by application	Sub-requirement	Operator's Operations Manual Reference or Document Reference
4.0 Operations Manual	OM Part B, AFM, FCOM, MEL, Checklists, and/or EFB Policy & Procedures Manual	<ul style="list-style-type: none"> • Limitations • Crew operating procedures during pre-flight and all other phases of the flight • Operating procedures requiring crew to crosschecks and to verify safety-critical data • Method used to keep crew aware of EFB software and database revisions • Crew procedures to verify revision status of software and database revisions • Procedures to mitigate and/or control workload • Contingency, Normal and abnormal procedures for EFB failures • Where is hardware/software systems description promulgated to the crew? • Dispatch with inoperative EFB elements (MEL or Operations Manual) • Crew procedures for safe stowage and security • Are applications intended to use an electronic signature process (such as: Loadsheet, Operational Flight Plan, NOTOC, Aircraft Technical Log)? 	
5.0 Human Factors Assessment	Legibility of text under the full range of lighting conditions		
	Input devices		
	Messages and use of colours		
	System error messages		
	Data entry screening and error messages		
	User errors		
	Identification of failure modes		
	Responsiveness of application		

Main Heading	Expanded areas to be addressed by application	Sub-requirement	Operator's Operations Manual Reference or Document Reference
6.0 Detailed Safety Case Submission	Details of Operational Risk Analysis conducted with appropriate mitigations. Should include (as applicable) but not limited to:	<ul style="list-style-type: none"> • Partial/total failures of the EFB • Loss of data and corrupt/erroneous outputs; • Sudden loss of cabin pressure (decompression); • Distraction of pilots during ground manoeuvring or in flight; • Use of incorrect performance data; • Failure of EFB resulting in smoke/fumes; • EMI interference from charging or operational use; • EFB becomes dismounted; • Breakdown of cockpit power supply; • Viruses and security 	
7.0 OM Part D - (Crew & Ops Ground Staff Training Programmes)	Initial training programmes methods and/or media. To include adequate documentation, hands-on practice, CRM, normal, abnormal, emergency and contingency procedures		
	Recurrent training and checking; and integration with OPCs		
	Certification of training and record keeping		
8.0 Hardware Management Procedures	Repair, maintenance and stock control. Documentation should include procedures for the control of hardware, spare units and stocks of components and peripherals		
	Stowage arrangements		
	System security		
	Hardware modification and upgrade		
	Adequate procedures to prevent operational use prior to re-approval if the original system specification is modified		
9.0 Software Management Procedures	Tracking of revisions status of software and data installed in each hardware unit		
	Controlled documented procedures for the control of installed software		
	Access rights to install or modify software limited to an appropriate number of personnel		
	Adequate controls and limitations on user access to modifiable system settings		
	Adequate controls to prevent user corruption of operating systems and software applications		
	Adequate security measures to prevent system degradation, viruses, and unauthorised access?		
	Procedures to verify whether software changes/upgrades affect the original system specification?		
	Adequate procedures to prevent operational use prior to re-approval if the original system specification is modified		

Main Heading	Expanded areas to be addressed by application	Sub-requirement	Operator's Operations Manual Reference or Document Reference
11. Quality Management System Compliance with EU-OPS 1.035	EFB system quality assurance integrated in the Quality System		
	Audits of external and outsourced providers connected with the EFB system		
	procedures to include periodic verification of data validity		
	Reporting/feedback system for system faults and errors and a robust response procedure		
	Feedback reports to be integrated with air safety reporting		
	Response to audit findings		
12. Operational Evaluation	Evaluation test		
	Timetable to be realistic		
	Adequate EFB training would need to be completed prior to the evaluation		
	Provision to suspend or modify the evaluation in the event of safety-critical deficiencies		
	Proposal for the initial retention of paper backup		
Ground school training	Syllabus should follow guidelines in EU-OPS, in particular Subpart E (should also include all the items in paragraph 6 above).		
Flight crew qualification and training (simulator/flight training)	<p>Syllabus should follow guidelines in EU-OPS, in particular Subpart E.</p> <p>Initial qualification requirements.</p> <p>Recurrent/revalidation requirements.</p> <p>Recency requirements.</p>		

Any Further Comments to Support Your Application:

[Empty text box for providing further comments to support the application.]