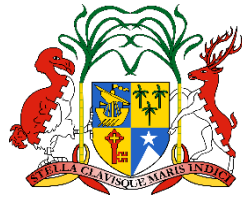




Department of Civil Aviation  
SSR International Airport  
Plaine Magnien

**EFB APPROVAL  
GUIDANCE & CHECKLIST**

Issue: 1  
Revision: 0  
Date: 14 Dec 2020



REPUBLIC OF MAURITIUS

**DEPARTMENT OF CIVIL AVIATION**

Sir Seewoosagur Ramgoolam International Airport, Plaine Magnien

**EFB APPROVAL  
GUIDANCE &  
CHECKLIST**

<b>Scope</b>	Guidance to receive an approval or change of an approval for EFBs
<b>Applies to</b>	Part-CAT Operators
<b>Valid from</b>	01 December 2020
<b>Purpose</b>	Guidance / Information



## FOREWORD

This GM/INFO shall provide guidelines and explanations regarding an operational approval or a change of an existing approval for EFBs.

All Guidance Material / Information (GM/INFO) are intended to assist the organisation/operator in administrative matters. The administrative requirements and processes will facilitate liaising with the Department of Civil Aviation (DCA) it is to be considered a tool for the organization /operator in order to ease processes of obtaining required and defined approvals and authorisations issued by the Department of Civil Aviation (DCA). Using the GM/INFO will be conducive to establishing compliance with DCA requirements and will lead through the respective certification or variation process in regard to administrative tasks.

This EFB approval and Guidance was drawn up based on the EU regulations, EASA decisions & AMC, and ICAO Doc & Annexes.

These requirements meet those applicable for MCAR-AOCR.

I POKHUN

**Director of Civil Aviation**



Department of Civil Aviation  
SSR International Airport  
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**AMMENDMENT RECORD**

<b>Amendment No.</b>	<b>Date of issue</b>	<b>Date entered</b>	<b>Entered by</b>
Issue 1	14 December 2020	14 December 2020	DCA - FOI



## **ABBREVIATIONS / DEFINITIONS**

The following abbreviations are within this GM/INFO:

<b>AFM</b>	Aircraft Flight Manual
<b>AMC</b>	Acceptable Means of Compliance
<b>AMC-20</b>	General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances
<b>OM</b>	Operations Manual
<b>AMMD</b>	Airport Moving Map Display
<b>AOC</b>	Air Operator Certificate
<b>ARO</b>	Authority Requirements for Air Operations
<b>CAA</b>	Civil Aviation Authority
<b>CAT</b>	Commercial Air Transport
<b>CL</b>	Compliance List
<b>COTS</b>	Commercial Of-The-Shelf
<b>C-PED</b>	Controlled Portable Electronic Device
<b>DCA</b>	Department of Civil Aviation
<b>EASA</b>	European Aviation Safety Agency
<b>EC</b>	European Commission
<b>ED</b>	Executive Director
<b>EFB</b>	Electronic Flight Bag Device
<b>EMI</b>	Electromagnetic Interference
<b>EU</b>	European Union
<b>GM/INFO</b>	Guidance Material / Information
<b>HMI</b>	Human Machine Interface
<b>ICA</b>	Instructions for Continued Airworthiness
<b>ICAO</b>	International Civil Aviation Organization
<b>IFW</b>	In-Flight Weather
<b>MEL</b>	Minimum Equipment List
<b>MLR</b>	Manuals, Logs and Records
<b>NCC</b>	Non-Commercial Air Operations with Complex Motor-Powered Aircraft
<b>NCO</b>	Non-Commercial Air Operations with other than Complex, Motor-Powered Aircraft
<b>OSPIF</b>	Own-Ship Position in Flight
<b>OEM</b>	Original Equipment Manufacturer
<b>OPS</b>	Operations
<b>OPS SPECS</b>	Operations Specifications
<b>ORO</b>	Organisation Requirement for Air Operations



<b>PED</b>	Portable Electronic Device
<b>PRA</b>	Proposed Revision / Amendment
<b>SB</b>	Service Bulletin
<b>SMS</b>	Safety Management System
<b>SPA</b>	Specific Approvals
<b>SPO</b>	Specialised Operations
<b>STC</b>	Supplemental Type Certificate
<b>TC</b>	Type Certificate
<b>T-PED</b>	Transmitting Portable Electronic

### **LEGAL REFERENCES APPLICABLE TO MCAR-AOCR**

Basic Regulation (EC) No 2018/1139:

- Common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency

Commission Regulation (EU) No 965/2012 (Air Operations):

- Technical requirements and administrative procedures related to air operations
- Annex I: DEF; Annex II: Part-ARO; Annex IV: Part-CAT; Annex V: Part-SPA; Annex VI: Part NCC; Annex VII: Part-NCO; Annex VIII: Part-SPO

Commission Regulation (EU) No 748/2012 (Initial Airworthiness):

- Laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances

ED Decision 2019/008/R:

- Transposition of provisions on Electronic Flight Bags from ICAO Annex 6

AMC-20 Amendment 16, AMC 20-25A:

- Airworthiness consideration for Electronic Flight Bags (EFBs)

ICAO Doc 10020:

- Manual on Electronic Flight Bags (EFBs)

ICAO Annex 6, Part I, II & III:

- Operation of aircraft


ICAO Doc 7030:

- Regional Supplementary Procedures



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 <p>Department of Civil Aviation SSR International Airport Plaine Magnien</p>	<p><b>EFB APPROVAL</b></p> <p><b>GUIDANCE &amp; CHECKLIST</b></p>	<p>Issue: 1 Revision: 0 Date: 14 Dec 2020</p>
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## PURPOSE OF THIS GM/INFO

With the Commission Implementing Regulation (EU) 2018/1975 of 14 December 2018 amending regulation (EU) 965/2012, the ICAO regulations regarding essential requirements for the use of EFBs, were taken into account by the European Union and ICAO Member States.

The corresponding AMCs and GMs were developed on the basis of the operational aspects of Amendment 12 to AMC-20 (AMC 20-25, airworthiness consideration for Electronic Flight Bags) and implemented in accordance with Air Ops CAT.GEN.MPA.141(b) a Part-CAT operator shall not use a type B EFB application unless it is approved by the competent authority in accordance with SPA.EFB.100.

Part-CAT operators acquiring the Specific Approval (SPA) for the use of type B EFB applications must comply with the requirements concerning initial and continuing airworthiness, operational procedures and training of all involved personnel. The process of approval includes the adoption of all parts of the operations manual system in the respective chapters as well as the amendment of affected maintenance documentation, procedures and tasks.

This GM/INFO was developed in accordance with the current legal requirements and provides basic support for the operator when applying for an extension of their Operations Specifications within the AOC, by adopting their operations manuals and maintenance documents in order to get an operational approval or a change of an existing approval for EFB operations.

## SCOPE

This GM/INFO covers all aspects of EFB operation and shall assist the applicant to be compliant with these requirements.

**Note:** *This GM/INFO contains useful information for Part-NCC, Part-NCO, and Part-SPO operators, which are at this time not required to make an application for a Specific Approval for the use of type B EFB applications*



## TERMS AND CONDITIONS

When used throughout the GM/INFO the following terms shall have the meaning as defined below:

Term	Meaning	Reference
shall, must, will	These terms express an obligation, a positive command.	EC English Style Guide, Edition 2.19, Chapter 10
may	This term expresses a positive permission.	
shall not, will not	These terms express an obligation, a negative command.	
may not, must not	These terms express a prohibition.	
need not	This term expresses a negative permission.	
should	This term expresses an obligation when an acceptable means of compliance	EASA Acceptable Means of Compliance publications DCA policies and requirements
could	This term expresses a possibility.	<a href="http://oxforddictionaries.com/definition/english/could">http://oxforddictionaries.com/definition/english/could</a>
ideally	This term expresses a best possible means of compliance and/or best experienced industry practice.	DCA recommendation

**Note:** To highlight information or an editorial note a specific note box, is used.

The use of the male gender should be understood to include male and female persons

## ORGANISATION / OPERATOR RESPONSIBILITIES

The evaluation of an EFB may have both, airworthiness and an operational aspect. Therefore, a complete evaluation of an EFB system may be required.

The operator has to ensure that all parts of the operations manual system are revised in a manner as to be compliant with the requirements relevant for EFB operations. All initial and continuing airworthiness requirements must be fulfilled.





The following subjects must be covered:

- Evidence of the certification status of the affected aircraft has to be provided to DCA (AFM, TC, SB, STC)
- Standard operating procedures (OM A, OM B), regional specific operational procedures and information (OM C), as well as the training programmes (OM D), must be defined and implemented in the OM System.  
Occurrence reporting procedures have to be established and described accordingly (OM A, SMS)

**Note:** Any operator already holding a specific approval for the use of type B EFB applications does not need to re-apply unless the operator is modifying or changing the actual EFB system (hardware or software) to a degree that it is required to inform the competent authority (AMC2 SPA.EFB.100(b)). This includes the extension of the use of an EFB system, for which the operator already holds an approval, to another aircraft type of the operator's fleet. The operator shall apply the change management procedure

## DEFINITION EFB

«Electronic Flight Bag (EFB) means an electronic information system, comprised of equipment and applications for flight crew, which allows for storing, updating, displaying, and processing of EFB functions to support flight operations or duties.

«EFB system» means the hardware equipment (including any battery, connectivity provisions, input/output components), and software (including databases and the operating system) needed to support the intended EFB application.

EFB hardware is classified in two categories:

- **Portable** - A portable EFB is a portable EFB host platform, used on the flight deck, which is not part of the certified aircraft configuration. These EFBs are considered as C-PEDs.
- **Installed** - An installed EFB means a host platform that is installed in the aircraft and is considered as an aircraft part, covered, thus, by the aircraft airworthiness approval.



EFB application are classified in two types:

- **Type A EFB application** - Type A applications are EFB applications whose malfunction or misuse have no safety effect
- **Type B EFB application** - Type B applications are EFB applications whose malfunction or misuse is classified as minor failure condition or below; and which neither replaces nor duplicates any system or functionality required by airworthiness regulations, airspace requirements, or operational rules

### OPERATIONAL APPROVAL

A reference to the related chapter in the Operations Manual (OM) where a list of type B EFB applications is available must be provided by the competent authority (DCA) on the Operations Specifications (OPS SPECS, DCA )

As per sample hereunder

Specific approvals:	Yes	No	Specification	Remarks
ETOPS <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum diversion time: 180min. or 1230 NM	
AR navigation specifications for PBN operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Minimum navigation performance specification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NAT HLA RSP 180 RCP 240	
Operations of single-engined turbine aeroplane at night or in IMC (SET-IMC)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Helicopter operations with the aid of night vision imaging systems	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Helicopter hoist operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Helicopter emergency medical service operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Helicopter offshore operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Cabin crew training	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Issue of CC attestation	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Use of type B EFB applications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	according to OM-A 8.9	



## **FORMAL APPLICATION**

A Part-CAT operator wishing to introduce an EFB system or to modify an existing specific approval for the use of type B EFB applications shall apply for this approval by means of DCA Form EFB 01 Operations Application. This form is available on the DCA website.

As an integrated part of the formal application, there is a specific approval checklist, which assists the applicant in determining compliance with the applicable regulations regarding operational use of an EFB system. The reference number of the completed checklist has to be entered on DCA Form EFB 01 and has to be sent to DCA as part of the application package.

## **AIRWORTHINESS**

Installed resources such as an installed remote display, a control device or a docking station require an airworthiness approval. The same applies for the EFB mounting device and an installed power outlet. If applicable, evidence, such as a service bulletin (issued by OEM), a STC including any ICAs and if applicable the limitation section of the corresponding AFM has to be provided as part of the application package. More information about airworthiness aspects related to EFB operations can be found in EASA AMC- 20 Amendment 16, AMC 20-25A

## **OPS SPECS**

As mentioned in chapter 1, Operational Approval, a reference on DCA Form EFB 1 , OPS SPECS, has to be provided. According to AMC3 ORO.MLR.100 'Operational manual – general', this reference shall point to OM A Chapter 8.9 "Procedures related to the use of type B EFB applications", where the list of type B EFB applications can be found.

### **List of Type B EFB Applications**

The information to be provided in the list of type B EFB applications are the following:

- Name of application
- Provider of application
- Type of application (The list of AMC3 CAT.GEN.MPA.141(b) should be used)

The list shall be aircraft type specific and include the information about the hardware on which the application is hosted.



Example:

Aircraft Type: A3XX		Hardware Model: Surface Pro
Type of application	Name of application	Provider of application
Document browser	FlySmart OLB	Airbus SAS
Document browser	EFB Docunet	Vistair
Aeronautical chart application	Lido eRM	Lufthansa Systems
Airport moving map display	Lido AMMD	Lufthansa Systems
Aircraft performance calculation	FlySmart Takeoff	Airbus SAS
Aircraft performance calculation	FlySmart Inflight	Airbus SAS
Aircraft performance calculation	FlySmart Landing	Airbus SAS
Mass and balance	FlySmart Loadsheet	Airbus SAS
In-flight weather	eWAS	GTD

**Note:** All type A EFB applications, which might be as well hosted on the EFB, should not be listed as they are not on the scope of the operational approval.

## EVALUATION PROCESS

The process is designed to lead to specific approval EFB for Part-CAT operators. Elements of this process are to be understood as guidelines and may also be used in instances where specific approval is not required, i.e. Part-NCC, Part-NCO and Part-SPO operators.

The different phases of the process do not necessarily have to be followed in chronological order. It is strongly recommended that the assigned inspector is informed as early as possible by the operator in order to discuss the phases of the evaluation process.



Phase	Topic	Aim
<b>Phase 1</b>	Kick-off meeting	<ul style="list-style-type: none"> <li>During this phase, the assigned inspector and the operator reach a common understanding of the following:               <ol style="list-style-type: none"> <li>Required forms and documents/manuals</li> <li>Required airworthiness approvals, if applicable</li> <li>Steps of the evaluation process, including the operational evaluation test</li> </ol> </li> </ul>
<b>Phase 2</b>	Application	<ul style="list-style-type: none"> <li>The application shall be submitted by means of the EFB Approval Form and shall cover the following information:</li> <li>Specific approval checklist and introduction concept of the EFB system</li> <li>EFB hardware specifications</li> <li>EFB operator policy, procedures and manuals including MEL (PRA &amp; CL)</li> <li>Evidence of airworthiness, if applicable (TC, STC, SB, AFM)</li> <li>EFB training program</li> <li>EFB evaluation report (if available)</li> <li>EFB risk assessment</li> <li>Final operational report</li> </ul>
<b>Phase 3</b>	DCA review	<ul style="list-style-type: none"> <li>Document evaluation of the application, the manuals and submitted reports from the operator</li> <li>Review of corrective action from the operator</li> <li>Issue of the signed PRA &amp; CL</li> </ul>
<b>Phase 4</b>	Operational evaluation test according to AMC3 SPA.EFB.100(b)	<ul style="list-style-type: none"> <li>An operational evaluation test should be performed by operators seeking an operational approval application for the use of a type B EFB. The operator should perform an operational evaluation test which should enable verification that the relevant requirements of SPA.EFB have been satisfied before a final decision is made on the operational use of the EFB.</li> <li>The operator should notify DCA of its intention to conduct an operational evaluation by sending a project plan. A receipt of this notification must be kept in the aircraft during the test period.</li> <li>The final operational report has to be sent to DCA.</li> </ul>
<b>Phase 5</b>	Issue of the OPS SPEC	<ul style="list-style-type: none"> <li>Issue of the Operations Specification 'Use of type B EFB applications'</li> </ul>