



Australian Government

Civil Aviation Safety Authority

NOTICE OF FINAL RULE MAKING

Electronic Flight Bags

Amendments to Civil Aviation Order (CAO) 82.0, 82.3 and 82.5

Readers should note that this Notice of Final Rule Making (NFRM) contains the consolidated summary of responses, CASA's comments and disposition of comments to Notice of Proposed Rule Making (NPRM) 1211OS. The NFRM also outlines CASA's agreed policy and intended legislative changes and finalises the public consultation process in respect of the NPRM.

Issued as part of the process of public consultation
by CASA's Standards Development Branch

Document NFRM 1211OS – November 2012

PROJECT NUMBER: OS 11/30

Foreword

On 8 August 2012, the Civil Aviation Safety Authority (CASA) published Notice of Proposed Rule Making (NPRM) 1211OS – *Electronic Flight Bags – Amendments to CAOs 82.0, 82.3 and 82.5*

The purpose of this Notice of Final Rule Making (NFRM) is to set out CASA's disposition of comments received on the NPRM, which invited public comment on the new proposed rules and guidance for the issuance of operational approvals for the use of portable EFBs by air operator certificate passenger carrying operators. Comprehensive guidance material will be developed to support the new standards along with guidance material for other users of portable EFBs

This NFRM:

- provides a background of the regulatory policy proposed and consultation undertaken;
- discusses the submissions made in response to NPRM 1211OS;
- provides an analysis of the responses and gives a CASA response and disposition;
- discusses the impact and gives an explanation of the changes; and
- provides the final legislative changes and associated advisory materials.

CASA received 76 responses to the NPRM. Approximately one third of respondents to Key proposal 1 stated it was acceptable without change, however, almost the same number of respondents stated that the proposal would be acceptable with changes. For Key Proposal 2, one half of respondents stated it was acceptable without change, whilst almost one quarter of respondents made no comment. A summary of responses, together with CASA's disposition of them, is attached to this NFRM at Annex C. A list of the respondents who agreed to have their name published is incorporated in Section 3 to this NPRM.

CASA would like to thank those who participated in the consultations on the issues addressed in the NPRM. The input of stakeholders who are directly or indirectly affected by change proposals is appreciated and valued in our regulatory development process.



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23 November 2012

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Acronyms

AOC	Air Operators Certificate
CAAP	Civil Aviation Advisory Publication
CASA	Civil Aviation Safety Authority
CAO	Civil Aviation Order
COTS	Commercial Off The Shelf
EFB	Electronic Flight Bag
EFBSG	Electronic Flight Bag Sub Group of the ICAO Operations Panel
GM	Guidance Material
ICAO	International Civil Aviation Organization
NFRM	Notice of Final Rule Making
NPRM	Notice of Proposed Rule Making
SARPs	Standards and Recommended Practices
SCC	Standards Consultative Committee
SOR	Summary of Responses

Definitions

Electronic Flight Bag (EFB) means a portable Information System for flight deck crew members which allows storing, updating, delivering and/or computing digital data to support flight operations or duties.

EFB system means the hardware, the operating system, the loaded software and any antennae, connections and power sources, used for the operation of an EFB.

Final Rule Making

1. Background

1.1 The paperless cockpit has become a reality with the advent of the latest technological developments in commercial off the shelf (COTS) electronic tablets. Tablets such as Apple's iPad, and other similar devices, loaded with purpose designed software are now being offered to the aviation industry for use by pilots as portable EFBs.

1.2 In response to this development, the International Civil Aviation Organization's (ICAO) Operations Panel reconvened the EFB Subgroup (EFBSG). This was considered necessary because the Operations Panel recognised that ICAO's current EFB Standards and Recommended Practices (SARPs), including the supporting guidance material (GM), have become obsolete by the release of the latest tablet technology.

1.3 The EFBSG was tasked with the development of high-level SARPs and detailed GM that will address basic requirements for the issuance of operational approvals for EFBs by the State of the Operator. That work has been incorporated into the new SARPs and a new EFB Manual for operators. CASA has participated in EFBSG meetings since it was reconvened to ensure Australia's harmonisation with ICAO.

1.4 Until now, CASA has not legislated for the use of EFBs. However, the use of EFBs by flight crew must be properly managed and administered to ensure the integrity of the data and the reliability of the device is commensurate with the paper equivalent.

1.5 NPRM 1211OS identifying two key change proposals was published on 8 August 2012, proposing amendments to CAO 82.0. The submission period closed on 23 September 2011. Amendments to CAO 82.0, 82.3 and 82.5 placed obligations on AOC holders where certain flight crew may be required to use EFBs in the execution of their daily duties. The amendment was designed to address identified risks by requiring the introduction of operator procedures to ensure that air safety is not compromised by the use of EFBs.

1.6 The amendments to the Orders will remove any potential legal obstruction to use EFBs. It will also facilitate Australia's obligations under Annex 6, Operation of Aircraft, Parts I, II, and III of the Chicago Convention. Comprehensive guidance material in the form of a CAAP has also been developed for both private operators and by AOC holders.

2. Purpose

2.1 The purpose of this NFRM is to:

- provide a consolidation of all comments received on NPRM 1211OS and the Annexes, along with CASA's evaluation and response to each of the comments and the final disposition of the regulatory material in respect of each comment;
- explain the decisions taken in the ensuing period; and
- notify the form of the final rules (amendments to CAO 82.0, 82.3 and 82.5) that CASA will promulgate.

3. Analysis of Comments

3.1 There were a total of 76 comments from 33 respondents to NPRM 1211OS, the associated Addendum and Annexes. All comments received have been considered. See Annex A to this NFRM for the consolidated Summary of Comments, CASA's responses to these comments and the disposition of those comments as they affect the final rules.

3.2 The list of respondents/organisations who consented to the publishing of their name follows:

Individuals

Christopher Andrews

Andrew Mizzi

Carol Richards

Eddie Seve

Graham Phillips

Gregory Payet

James Hill

John Battilana

Martin Marriett

Michael Densley

Nathan Vagg

Paul Harris – Jetstar

Richard Folving

Robert Cassidy

Ross Vining

Todd Wainwright

Organisations

ABAA/Walker Air - Phillip Muhlberg

Aircraft Owners and Pilots Association

Australian and International Pilots Association

Australian Mooney Pilots Association - John Hillard

Becker Helicopters - Scott Summers

Boeing Commercial Airplanes

Jeppesen - Thatch Vandenberg

Qantas - David Chitty

Quoll Technologies - John Taylor

Organisations (continued)

The Royal Federation of Aero Clubs Australia

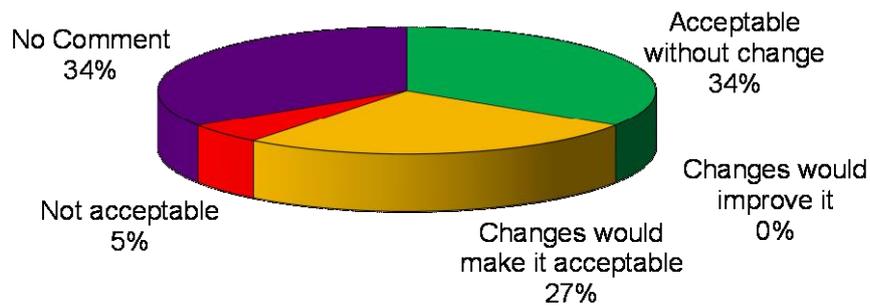
Virgin Australia - Michael Wiggins

Walker Air - Clive Brookes

West Wing Aviation – Allann Chinn

3.3 The disposition of individual comments against the two **key issues** follows and the percentage is shown for these in figures 1 and 2 of this NFRM.

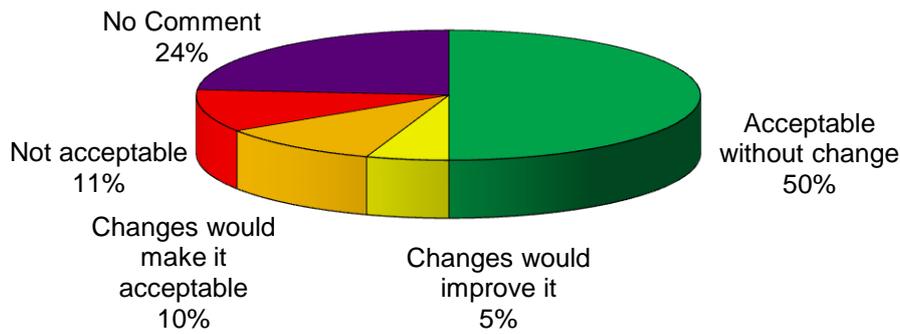
KEY PROPOSAL 1 – Amendment of CAO 82.0 prescribing the amendments to AOC holders Operations Manual required prior to use of an EFB on the flight deck



Disposition of Responses	No. of Responses
Not acceptable under any circumstances	2
Changes would make it acceptable	10
Changes would improve it	0
Proposal is acceptable without change	13
No comment	13
	Total = 38

Figure 1

KEY PROPOSAL 2 – Amendment of CAO 82.3 and 82.5 requiring foreign operators to comply with the requirements contained in the CAO 82.0 amendment



Disposition of Responses	No. of Responses
Not acceptable under any circumstances	4
Changes would make it acceptable	4
Changes would improve it	2
Proposal is acceptable without change	19
No comment	9
	Total = 23

Figure 2

Distribution of General Comments

3.4 General acceptance of NPRM 1211OS, the associated Annexes were received according to the completed formal response forms submitted to the NPRM. Two key issues were outlined within the response material that indicated improvements that could be made to the proposed CAO.

3.5 The key comments outlined within the formal responses are listed below. A more detailed discussion of these responses is provided in Annex A of this NFRM:

- Clarification of what backup is required for the use of EFBs and when it is required;
- Clarification of suitable mounts for EFBs;
- Clarification when an EFB must be stowed in flight;
- Definition of EFB amended for clarification;

- Definition of operating flight crew amended;
- The requirement to record the validation of software and where it is to be published have been amended;
- The requirement for CASA to approve an EFB training person has been reviewed; and
- The accompanying CAAP has been reviewed and amended to incorporate the changes in the proposed Orders.

4. Conclusion and Impact of Changes

4.1 The analysis of the comments noted in Section 3 of this NFRM is detailed in Annex A of this NFRM. These comments have helped shape the final CAO and the CAAP. This section highlights the final proposal in relation to the main issues raised in Section 3 of this NFRM.

4.2 The majority of comments were supportive of the new CAO while some comments sought to clarify interpretation, application or consistency of the new CAO and these are addressed in the Summary of Responses at Annex A of this NFRM.

4.3 As stated in NPRM 1211OS these changes will ensure the use of portable EFBs by pilots is legitimised and the supporting standards and guidance is outcome based and sustainable for the foreseeable future.

5. Implementation and Review

5.1 It is expected that the regulatory amendments will be approved and made in time for implementation on 22 November 2012. The new EFB regulatory regime will be reviewed in the future by CASA following a period to allow bedding down of the rules and guidance.

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Document NFRM 1211OS

Further information on this NFRM is available from:

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