ELECTRONIC FLIGHT BAG (EFB) – COMPLIANCE CHECKLIST

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| **Operator Name** | | | | | | **AOC / DEC No.** |
| **Type of Operations** | | | | | | **Aircraft Type** |
|  | **Part–CAT** |  | **Part–NCC** |  | **Part–SPO** |
| **Applicant Name** | | | | | | **Position** |
| **Contact No.** | | | | | | **Contact e-mail** |
| **Signature** | | | | | | **Date** |

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| **DECLARATION:** |
| I hereby submit this **Form OPS606D** for approval. I confirm that I am satisfied this submission has been satisfactorily prepared and that I have checked the contents for accuracy. I declare that the EFB is in compliant with Brunei Aviation Requirements**.** |

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| **Note:** |
| This compliance checklist must be completed on initial application for use of an EFB and for subsequent significant changes, e.g. introduction of a new Type B application, change of hardware, or hardware operating system  Operators should complete the relevant section of this form in accordance with the type of operations:   * **Section A** – Commercial Air Transport (CAT) Operators * **Section B** – Non-Commercial Complex type (NCC) Operators * **Section C** – Specialised Operations (SPO) Operators   + **Subsection 1** – SPO operations with a complex aircraft   + **Subsection 2** – SPO operations with a non-complex aircraft   Operators must also complete and submit **OPS606B EFB Operator’s Submission Checklist** alongside this compliance checklist. |

**Section A – Commercial Air Transport (CAT) Operators**

This section should be completed by all operators undertaking any form of CAT. The completed document should be submitted to the operator’s assigned FOI along with its risk assessment, EFB Policy and Procedures Manual, and any supporting documentation. Once reviewed, the FOI will then authorise commencement of the Operational Evaluation Test. During the Operational Evaluation Test the operator must achieve a statistically viable level of feedback reports (both negative and nil reports). On the successful completion of the test the operator must submit its Final Operational Report; once this is accepted by the FOI the approval to conduct EFB operations will be added to the operator’s Operations Specification document.

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| **#** | **Requirement** | **Regulatory Reference** | **Operator’s Reference in Ops Manual or EFB Policy and Procedures Manual** |
| A1 | Has an EMI assessment of the EFB been undertaken, and using which method? | AMC1 CAT.GEN.MPA.140 |  |
| A2 | Is the EFB hardware Installed or Portable? | AMC1 CAT.GEN.MPA.141(a) |  |
| A3 | Is the EFB able to be easily removed from its mount or stowage? |  |
| A4 | Are any EFB ‘anti-theft’ devices removed before flight? |  |
| A5 | Does the EFB have a suitable Mount or Viewable Stowage? If not have procedures been developed to ensure that it is stowed during critical phases of flight? |  |
| A6 | Does the placement of the EFB device impair the crew’s external view or access to instruments? Would it impede emergency egress? |  |
| A7 | Is the display within 90 degrees of the crew member’s line of sight, and would glare or reflection interfere with the pilot? |  |
| A8 | If aircraft power is used, are the characteristics compatible with the EFB? |  |
| A9 | Does the EFB have data connectivity to the aircraft; if so, how is ransfer of data controlled? |  |
| A10 | Are all connecting cables/power adaptors approved by the EFB manufacturer and placed so as not to cause obstruction? |  |
| A11 | Does the EFB battery, and any additional battery power sources, meet the requirements of AMC1 CAT.GEN.MPA.140 paragraph (f)? |  |
| A12 | If a viewable stowage is used has its location been documented as part of the EFB policy? |  |
| A13 | Does the viewable stowage and associated mechanisms impede the flight crew members in the performance of any task? |  |
| A14 | Is the viewable stowage easily locked in position? |  |
| A15 | Does the viewable stowage’s range of movement accommodate the expected range of anthropometric constraints? |  |
| A16 | Will the viewable stowage be able to withstand all foreseeable conditions such as turbulence or hard landings? |  |
| A17 | With the viewable stowage fitted is there any interference with aircraft controls or equipment? |  |
| A18 | Can the EFB device be switched off when held by the viewable stowage? |  |
| A19 | Can the viewable stowage be removed from the aircraft without the use of tools? | AMC1 CAT.GEN.MPA.141(a) |  |
| A20 | Have procedures been put in place to ensure that the means of securing the viewable stowage remain within acceptable limits, and who will be responsible for conducting these serviceability checks? |  |  |
| A21 | If the viewable stowage uses a suction cup type attachment, how was it demonstrated that they will function following a rapid decompression? |  |  |
| A22 | How has it been demonstrated that following detachment of a viewable stowage it will not jam the flight controls, injure the crew or cause damage? (See GM1 CAT.GEN.MPA.141(a) ) |  |  |
| A23 | Have all applications to be used on the EFB been classified (Type A or Type B) and detailed in the Policy and Procedures Manual and listed in the OM Part A Section 8.9? | AMC1, AMC2, AMC3 CAT.GEN.MPA.141(b) |  |
| A24 | Has a risk assessment been undertaken, and submitted, incorporating all the elements required by AMC1 SPA.EFB.100(b)(1)? | SPA.EFB.100 (b)(1) |  |
| A25 | Have the Human Machine Interfaces (HMI) of the EFB device and its applications been assessed against human factors principles as detailed in AMC1 SPA.EFB.100 (b)(2) | SPA.EFB.100 (b)(2) |  |
| A26 | Does the placement of the EFB create unacceptable workload for the pilot or require undue ‘head-down’ movements during critical stages of flight? | AMC1 SPA.EFB.100 (b) |  |
| A27 | Has the degradation of the display due to ageing/abrasion been considered? |  |  |
| A28 | Can the screen brightness be adjusted through a range to suit all ambient conditions |  |  |
| A29 | Are all required EFB buttons suitably back-lit? |  |  |
| A30 | Are all controls properly labelled? |  |  |
| A31 | Is there an independent power source for multiple EFBs? |  |  |
| A32 | Has the EFB undergone environmental testing, especially for rapid decompression in accordance with EUROCAE ED-14D/RTCA DO-160D guidelines? |  |  |
| A33 | Does the EFB Policy and Procedures Manual contain a process to determine which modifications to the EFB system require Authority approval? | AMC2 SPA.EFB.100 (b) |  |
| A34 | Have the details of the Operational Evaluation Test been confirmed and a plan submitted to the Authority? | AMC3 SPA.EFB.100 (b) |  |
| A35 | Will paper-backups be used during the Evaluation Test? If not have arrangements for a LOFT, and possible flight, observations been arranged? |  |  |
| A36 | When the Final Operational Report is issued, will it conform to the requirements of, and follow the format shown in GM1 SPA.EFB.100(b)? |  |  |
| A37 | Has an EFB Administrator been appointed, and where are his/her terms of reference defined? | AMC1 SPA.EFB.100 (b)(3) |  |
| A38 | Has an EFB Policy and Procedures Manual been produced? Is this a stand-alone document or incorporated into other sections of the Ops Manual? | AMC2 SPA.EFB.100(b)(3) |  |
| A39 | Does the EFB Policy and Procedures Manual follow the format shown in GM1 SPA.EFB.100(b)(3)? If not, how will the operator demonstrate that all required sections have been adequately addressed? |  |  |
| A40 | If the EFB duplicates information provided by aircraft avionics, is clear guidance as to which has primacy stated? | AMC3 SPA.EFB.100 (b)(3) |  |
| A41 | Has a procedure been developed to ensure that crew verify that the configuration of the EFB and its databases are up to date? | AMC3 SPA.EFB.100 (b)(3) |  |
| A42 | Have procedures been developed to ensure that crew workload is not adversely affected by use of the EFB, and list any times when the EFB should not be used? |  |  |
| A43 | Have procedures been included to ensure the serviceability of the EFB before flight? |  |  |
| A44 | Does the Operations Manual, or MEL, provide dispatch guidance for unserviceable elements of the EFB? |  |  |
| A45 | Have maintenance procedures for the EFB been developed that include routine maintenance, as well as dealing with failures? Are these procedures written into the maintenance programme? |  |  |
| A46 | Is there a programme to periodically check, and replace, EFB batteries? |  |  |
| A47 | How are EFB failures reported and how are crew notified of any unserviceability? |  |  |
| A48 | How does the operator ensure the security of the EFB and its data? (Guidance given in GM3 SPA.EFB.100(b)(3) ) |  |  |
| A49 | If electronic signatures are to be used, what procedures has the operator put in place? |  |  |
| A50 | Has initial training on the EFB and its applications been conducted in accordance with the AMC and GM2 SPA.EFB.100(b)(3)? | AMC4 SPA.EFB.100(b)(3) |  |
| A51 | Is EFB operation/training included in recurrent training packages? |  |  |
| A52 | If SOPs are dependent on the use of EFB, do all training devices used allow the use of the EFB? |  |  |
| A53 | If performance or mass and balance (M&B) applications are used, what is the source material for the information used by the software? | AMC5 SPA.EFB.100(b)(3) |  |
| A54 | How is the integrity of the database files protected from unintentional modifications? |  |  |
| A55 | Does each software version have a unique version number? |  |  |
| A56 | Does the EFB record each performance and M&B calculation for a minimum of 3 month? |  |  |
| A57 | Have performance and M&B data figures been compared to AFM data across a range of conditions? (See paragraph (b) for criteria) |  |  |
| A58 | Do procedures specify that calculations must be performed independently by both pilots with a formal cross check, including aircraft output if appropriate, and include a gross error check? |  |  |
| A59 | How does the performance application allow the display of both dispatch (regulatory, factored) and other results (e.g. in-flight or unfactored) for landing calculations? |  |  |
| A60 | Have specific procedures been developed in the event of a single EFB failure? |  |  |
| A61 | How have the additional training requirements of paragraph (d) been addressed? |  |  |
| A62 | How does the M&B application meet the requirement to show a diagram displaying mass and c-of-g positions? |  |  |
| A63 | How have the Human-factors considerations of paragraph (f) been addressed? |  |  |
| A64 | How does the presentation of user entries differ from that of default values or entries from aircraft systems/other components of the EFB? |  |  |
| A65 | What indication is shown when an unachievable operation is calculated (e.g. insufficient runway length)? |  |  |
| A66 | Are all data input fields automatically cleared when the EFB shuts down or enters sleep mode, or when modifications are made? |  |  |
| A67 | If an Airport Moving Map Display (AMMD) is used, does the position source meet the requirements of ETSO-C165a? | AMC6 SPA.EFB.100(b)(3) |  |
| A68 | How has it been demonstrated that the EFB platform meets the software requirements of the AMMD? |  |  |
| A69 | Have specific AMMD crew procedures and training been developed highlighting that it is only an aid to positional awareness and not to be used as the basis for ground maneuvering? |  |  |
| A70 | If a commercial off-the-shelf (COTS) position source has been used, how have the requirements of AMC 7 been met? (Further guidance given in GM5 SPA.EFB.100(b)(3) ) | AMC7 SPA.EFB.100(b)(3) |  |
| A71 | Do navigational chart applications display all necessary information in an appropriate form? | AMC8 SPA.EFB.100(b)(3) |  |
| A72 | If In-Flight Weather (IFW) applications are used, do procedures dictate the primacy of documented weather data and that they are not to be used for tactical decisions or to replace certified weather radar? | AMC9 SPA.EFB.100(b)(3) |  |
| A73 | Does the IFW display distinguish between observed and forecast weather? |  |  |
| A74 | Is the validity time of the data displayed? |  |  |
| A75 | Does the IFW display have an appropriate legend? |  |  |
| A76 | Does the IFW display indicate partial or total loss of data? |  |  |
| A77 | What additional training and SOPs have been developed specific to the use of IFW? |  |  |
| A78 | If own-ship position is to be displayed, does the aircraft also have a certified navigational moving map display? (Mandatory except on VFR flights) | AMC10 SPA.EFB.100(b)(3) |  |
| A79 | Does the position source for own-ship display meet the requirements of AMC7 SPA.EFB.100(b)(3)? |  |  |
| A80 | Is the own-ship position removed when position data is lost? |  |  |
| A81 | Are the flight crew able to unambiguously differentiate the EFB function from avionics functions available in the cockpit, and in particular with the navigation display. |  |  |
| A82 | If the own-ship position is displayed on terminal charts (SID, STAR or approach plates) is the label ‘AIRCRAFT POSITION NOT TO BE USED FOR NAVIGATION’ displayed? |  |  |
| A83 | Is the EFB own-ship symbol different from that used in the aircraft’s primary navigation display. |  |  |
| A84 | How is map orientation displayed (e.g. North-up or track-up), and how is this indicated? |  |  |
| A85 | Apart from day-VFR with visual references, is information on track/ETA/Altitude/coordinates/speed removed? |  |  |
| A86 | How do crew disable the own-ship position indication? |  |  |
| A87 | Does EFB training emphasise that EFB own-ship position should not be used as a primary source of navigation? |  |  |
| A88 | Do procedures specify the intended use of the own-ship position? |  |  |
| A89 | Do procedures include EFB into the regular scan of flight deck systems indications, in particular, systematic cross-check with avionics before being used, whatever the position source? |  |  |
| A90 | Have procedures been developed for the case of identification of a discrepancy between the EFB and Avionics? |  |  |
| A91 | Does the OM Part A Section 8.9 include the details of the EFB procedures/hardware/software? | AMC3 ORO.MLR.100 |  |

**Section B – Non-Commercial Complex type (NCC) Operators**

This section is designed for operations conducted solely under NCC. Whilst formal approval from the Authority is not required, the operator must comply with the following requirements prior to undertaking EFB operations.

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| **#** | **Requirement** | **Regulatory Reference** | **Operator’s Reference in Ops Manual or EFB Policy and Procedures Manual** |
| B1 | Is the EFB hardware Installed or Portable? | AMC1 NCC.GEN.131(a) |  |
| B2 | Is the EFB able to be easily removed from its mount or stowage? |  |
| B3 | Are any EFB ‘anti-theft’ devices removed before flight? |  |
| B4 | Does the EFB have a suitable Mount or Viewable Stowage? If not have procedures been developed to ensure that it is stowed during critical  phases of flight? |  |
| B5 | Does the placement of the EFB device impair the crew’s external view or access to instruments? Would it impede emergency egress? |  |
| B6 | Is the display within 90 degrees of the crew member’s line of sight, and would glare or reflection interfere with the pilot? |  |
| B7 | If aircraft power is used, are the characteristics compatible with the EFB? |  |
| B8 | Does the EFB have data connectivity to the aircraft; if so, how is transfer of data controlled? |  |
| B9 | Are all connecting cables/power adaptors approved by the EFB manufacturer and placed so as not to cause obstruction? |  |
| B10 | Does the EFB battery, and any additional battery power sources, meet the requirements of AMC1 NCC.GEN.130 paragraph (f)? |  |
| B11 | If a viewable stowage is used has its location been documented as part of the EFB policy? |  |
| B12 | Does the viewable stowage and associated mechanisms impede the flight crew members in the performance of any task? |  |
| B13 | Is the viewable stowage easily locked in position? |  |
| B14 | Does the viewable stowage’s range of movement accommodate the expected range of anthropometric constraints? |  |
| B15 | Will the viewable stowage be able to withstand all foreseeable conditions such as turbulence or hard landings? |  |
| B16 | With the viewable stowage fitted is there any interference with aircraft controls or equipment? |  |
| B17 | Can the EFB device be switched off when held by the viewable stowage? |  |
| B18 | Can the viewable stowage be removed from the aircraft without the use of tools? |  |
| B19 | Have procedures been put in place to ensure that the means of securing the viewable stowage remain within acceptable limits, and who will be responsible for conducting these serviceability checks? |  |
| B20 | If the viewable stowage uses a suction cup type attachment, how was it demonstrated that they will function following a rapid decompression? |  |
| B21 | How has it been demonstrated that following detachment of a viewable stowage it will not jam the flight controls, injure the crew or cause damage? (See GM1 CAT.GEN.MPA.141(a) for guidance) |  |
| B22 | Has consideration been given to the long-term degradation of a display, as a result of abrasion and ageing. AMC 25-11 (paragraph 3.16a) may be used as guidance to assess luminance and legibility aspects |  |
| B23 | Is information displayed on the EFB should be legible to the typical user at the intended viewing distance(s) and under the full range of lighting conditions expected in a flight crew compartment, including direct sunlight? | AMC1 NCC.GEN.131(a) |  |
| B24 | Is it possible to adjust the brightness of an EFB screen independently of the brightness of other displays in the flight crew compartment? |  |
| B25 | Are all controls properly labelled for their intended function, except if no confusion is possible and have suitable illumination? |  |
| B26 | Does the viewing angle of the EFB degrade the quality of displays? |  |
| B27 | What is the intended power source for the EFB, and how does the operator demonstrate its safety and adequacy? |  |
| B28 | Has environmental testing of the EFB, in particular testing for rapid decompression, been undertaken? |  |
| B29 | Has the safe stowage and use of the EFB under any foreseeable environmental conditions e.g. turbulence, been evaluated? |  |
| B30 | Have all applications to be used on the EFB been classified (Type A or Type B) in accordance with the guidance given in AMC 1, AMC2 and AMC3 of CAT.GEN.141(b)? | AMC1 NCC.GEN.131(b) |  |
| B31 | Has a Risk Assessment been conducted which includes all elements listed in AMC1 NCC.GEN.131(b)(1)? | AMC1 NCC.GEN.131(b)(1) |  |
| B32 | What procedure has been adopted to ensure that any future changes to the EFB, hardware or software, are adequately risk assessed? |  |
| B33 | What EFB administrative procedures have been developed to ensure adequate support for users, security validity and integrity of the device and software? | AMC1 NCC.GEN.131(b)(2) |  |
| B34 | If the EFB duplicates functions of the aircraft avionics, do procedures clearly identify which has primacy? | AMC2 NCC.GEN.131(b)(2) |  |
| B35 | Have procedures been developed to guide crew in the event that EFB information differs from that of the avionics? |  |
| B36 | What procedures have been implemented to ensure that crew check that EFB data is up to date? |  |
| B37 | What procedures have been implemented to ensure that the EFB does not cause excessive workload or preoccupation by the crew? |  |
| B38 | What dispatch criteria have been established in the case of unserviceability of the EFB system? |  |
| B39 | What procedures have been implemented for the routine maintenance of the EFB? |  |
| B40 | What security procedures have been implemented to ensure the security of the EFB data? |  |
| B41 | If electronic signatures are to be used, how do they comply with the requirements of AMC1 NCC.POL.110(c)? |  |
| B42 | What specific EFB training have the crew undergone; does it meet the requirements of AMC3? | AMC3 NCC.GEN.131(b)(2) |  |
| B43 | If Performance or Mass and Balance (M&B) functions are to be used, what is the source for this data? | AMC4 NCC.GEN.131(b)(2) |  |
| B44 | Is the integrity of Performance and M&B applications checked by the programme before performing calculations? |  |
| B45 | Does Performance and M&B software have a unique version number? |  |
| B46 | Are all Performance and M&B calculations retained for a minimum of 3 months? |  |
| B47 | How were Performance and M&B applications tested? |  |
| B48 | Do procedures specify that calculations must be performed independently by both pilots with a formal cross check, including aircraft output if appropriate, and include a gross error check? |  |
| B49 | Where an application allows the computing of both dispatch results (from regulatory and factored calculations) and other results, training should highlight the specificities of those results. |  |
| B50 | How does the M&B application meet the requirement to show a diagram displaying mass and c-of-g positions? |  |
| B51 | How have the Human-factors considerations of paragraph (f) been addressed? |  |
| B52 | Are all Performance and M&B data input fields automatically cleared when the EFB shuts down or enters sleep mode, or when modifications are made? |  |
| B53 | If an Airport Moving Map Display (AMMD) is used, does the position source meet the requirements of ETSO-C165a? | AMC5 NCC.GEN.131(b)(2) |  |
| B54 | How has it been demonstrated that the EFB platform meets the software requirements of the AMMD? |  |
| B55 | Have specific AMMD crew procedures and training been developed highlighting that it is only an aid to positional awareness and not to be used as the basis for ground maneuvering? |  |
| B56 | If a commercial off-the-shelf (COTS) position source has been used, how have the requirements of AMC 6 been met? | AMC6 NCC.GEN.131(b)(2) |  |
| B57 | Do navigational chart applications display all necessary information in an appropriate form? | AMC7 NCC.GEN.131(b)(2) |  |
| B58 | If an In-Flight Weather application is to be used, how have the additional requirements of AMC 8 been met? | AMC8 NCC.GEN.131(b)(2) |  |
| B59 | If own-ship position is to be displayed, does the aircraft also have a certified navigational moving map display? (Mandatory except on VFR flights) | AMC9 NCC.GEN.131(b)(2) |  |
| B60 | Does the position source for own-ship display meet the requirements of AMC6 NCC.GEN.131(b)(2)? |  |
| B61 | Is the own-ship position removed when position data is lost? |  |
| B62 | Are the flight crew able to unambiguously differentiate the EFB function from avionics functions available in the cockpit, and in particular with the navigation display. |  |
| B63 | If the own-ship position is displayed on terminal charts (SID, STAR or approach plates) is the label ‘AIRCRAFT POSITION NOT TO BE USED FOR NAVIGATION’ displayed? |  |
| B64 | Is the EFB own-ship symbol different from that used in the aircraft’s primary navigation display. |  |
| B65 | How is map orientation displayed (e.g. North-up or track-up), and how is this indicated? |  |
| B66 | Apart from day-VFR with visual references, is information on track/ETA/Altitude/coordinates/speed removed? |  |
| B67 | How do crew disable the own-ship position indication? |  |
| B68 | Does EFB training emphasise that EFB own-ship position should not be used as a primary source of navigation? |  |
| B69 | Do procedures specify the intended use of the own-ship position? |  |
| B70 | Do procedures include EFB into the regular scan of flight deck systems indications, in particular, systematic cross-check with avionics before being used, whatever the position source? |  |
| B71 | Have procedures been developed for the case of identification of a discrepancy between the EFB and Avionics? |  |

**Section C – Specialised Operations (SPO) Operators**

This section is designed for operations conducted solely under SPO. Whilst formal approval from the Authority is not required, the operator must comply with the following requirements prior to undertaking EFB operations.

As SPO operations may be undertaken in either complex or non-complex aircraft, certain requirements listed below will have different criteria dependant on the type of aircraft used:

* **Subsection 1** should be completed for SPO operators using complex aircraft
* **Subsection 2** should be completed for SPO operators using non-complex aircraft.

Note: The definition of a complex aircraft is any fixed wing aircraft with twin turboprop engines or one or more turbojet engines; a MTOW over 5600Kg; MOSP over 19 seats; certified for 2 pilots. A helicopter is defined as complex if certified for a MTOW exceeding 3175Kg; MOSP of more than 9; or 2 pilots.

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| **Subsection 1 – SPO operations with a complex aircraft** | | | |
| **#** | **Requirement** | **Regulatory Reference** | **Operator’s Reference in Ops Manual or EFB Policy and Procedures Manual** |
| CC1 | Is the EFB hardware Installed or Portable? | AMC1 SPO.GEN.131(a) |  |
| CC2 | Is the EFB able to be easily removed from its mount or stowage? |  |
| CC3 | Are any EFB ‘anti-theft’ devices removed before flight? |  |
| CC4 | Does the EFB have a suitable Mount or Viewable Stowage? If not have procedures been developed to ensure that it is stowed during critical phases of flight? |  |
| CC5 | Does the placement of the EFB device impair the crew’s external view or access to instruments? Would it impede emergency egress? |  |
| CC6 | Is the display within 90 degrees of the crew member’s line of sight, and would glare or reflection interfere with the pilot? |  |
| CC7 | If aircraft power is used, are the characteristics compatible with the EFB? |  |
| CC8 | Does the EFB have data connectivity to the aircraft; if so, how is transfer of data controlled? |  |
| CC9 | Are all connecting cables/power adaptors approved by the EFB manufacturer and placed so as not to cause obstruction? |  |
| CC10 | Does the EFB battery, and any additional battery power sources, meet the requirements of AMC1 NCC.GEN.130 paragraph (f)? |  |
| CC11 | If a viewable stowage is used has its location been documented as part of the EFB policy? |  |
| CC12 | Does the viewable stowage and associated mechanisms impede the flight crew members in the performance of any task? |  |
| CC13 | Is the viewable stowage easily locked in position? |  |
| CC14 | Does the viewable stowage’s range of movement accommodate the expected range of anthropometric constraints? |  |
| CC15 | Will the viewable stowage be able to withstand all foreseeable conditions such as turbulence or hard landings? |  |
| CC16 | With the viewable stowage fitted is there any interference with aircraft controls or equipment? |  |
| CC17 | Can the EFB device be switched off when held by the viewable stowage? |  |
| CC18 | Can the viewable stowage be removed from the aircraft without the use of tools? |  |
| CC19 | Have procedures been put in place to ensure that the means of securing the viewable stowage remain within acceptable limits, and who will be responsible for conducting these serviceability checks? |  |
| CC20 | If the viewable stowage uses a suction cup type attachment, how was it demonstrated that they will function following a rapid decompression? |  |
| CC21 | How has it been demonstrated that following detachment of a viewable stowage it will not jam the flight controls, injure the crew or cause damage? (See GM1 CAT.GEN.MPA.141(a) for guidance) | AMC1 SPO.GEN.131(a) |  |
| CC22 | Has consideration been given to the long-term degradation of a display, as a result of abrasion and ageing. AMC 25-11 (paragraph 3.16a) may be used as guidance to assess luminance and legibility aspects |  |
| CC23 | Is information displayed on the EFB should be legible to the typical user at the intended viewing distance(s) and under the full range of lighting conditions expected in a flight crew compartment, including direct sunlight? |  |
| CC24 | Is it possible to adjust the brightness of an EFB screen independently of the brightness of other displays in the flight crew compartment? |  |
| CC25 | Are all controls properly labelled for their intended function, except if no confusion is possible and have suitable illumination? |  |
| CC26 | Does the viewing angle of the EFB degrade the quality of displays? |  |
| CC27 | What is the intended power source for the EFB, and how does the operator demonstrate its safety and adequacy? |  |
| CC28 | Has environmental testing of the EFB, in particular testing for rapid decompression, been undertaken? |  |
| CC29 | Has the safe stowage and use of the EFB under any foreseeable environmental conditions e.g. turbulence, been evaluated? |  |
| CC30 | Have all applications to be used on the EFB been classified (Type A or Type B) in accordance with the guidance given in AMC 1, AMC2 and AMC3 of CAT.GEN.141(b)? | AMC1 SPO.GEN.130(b) |  |
| CC31 | Has a Risk Assessment been conducted which includes all elements listed in AMC1 SPO.GEN.131(b)(1)? | AMC1 SPO.GEN.131(b)(1) |  |
| CC32 | What procedure has been adopted to ensure that any future changes to the EFB, hardware or software, are adequately risk assessed? |  |
| CC33 | What EFB administrative procedures have been developed to ensure adequate support for users, security validity and integrity of the device and software? | AMC1 SPO.GEN.130(b)(2) |  |
| CC34 | If the EFB duplicates functions of the aircraft avionics, do procedures clearly identify which has primacy? | AMC2 SPO.GEN.131(b)(2) |  |
| CC35 | Have procedures been developed to guide crew in the event that EFB information differs from that of the avionics? |  |
| CC36 | What procedures have been implemented to ensure that crew check that EFB data is up to date? |  |
| CC37 | What procedures have been implemented to ensure that the EFB does not cause excessive workload or preoccupation by the crew? |  |
| CC38 | What dispatch criteria have been established in the case of unserviceability of the EFB system? |  |
| CC39 | What procedures have been implemented for the routine maintenance of the EFB? | AMC2 SPO.GEN.130(b)(2) |  |
| CC40 | What security procedures have been implemented to ensure the security of the EFB data? |  |
| CC41 | If electronic signatures are to be used, how do they comply with the requirements of AMC1 NCC.POL.110(c)? |  |
| CC42 | What specific EFB training have the crew undergone; does it meet the requirements of AMC3? | AMC3 SPO.GEN.131(b)(2) |  |
| CC43 | If Performance or Mass and Balance (M&B) functions are to be used, what is the source for this data? | AMC4 SPO.GEN.131(b)(2) |  |
| CC44 | Is the integrity of Performance and M&B applications checked by the programme before performing calculations? |  |
| CC45 | Does Performance and M&B software have a unique version number? |  |
| CC46 | Are all Performance and M&B calculations retained for a minimum of 3 months? |  |
| CC47 | How were Performance and M&B applications tested? |  |
| CC48 | Do procedures specify that calculations must be performed independently by both pilots with a formal cross check, including aircraft output if appropriate, and include a gross error check? |  |
| CC49 | Where an application allows the computing of both dispatch results (from regulatory and factored calculations) and other results, training should highlight the specificities of those results. |  |
| CC50 | How does the M&B application meet the requirement to show a diagram displaying mass and c-of-g positions? |  |
| CC51 | How have the Human-factors considerations of paragraph (f) been addressed? |  |
| CC52 | Are all Performance and M&B data input fields automatically cleared when the EFB shuts down or enters sleep mode, or when modifications are made? |  |
| CC53 | If an Airport Moving Map Display (AMMD) is used, does the position source meet the requirements of ETSO-C165a? | AMC5 SPO.GEN.131(b)(2) |  |
| CC54 | How has it been demonstrated that the EFB platform meets the software requirements of the AMMD? |  |  |
| CC55 | Have specific AMMD crew procedures and training been developed highlighting that it is only an aid to positional awareness and not to be used as the basis for ground manoeuvring? |  |
| CC56 | If a commercial off-the-shelf (COTS) position source has been used, how have the requirements of AMC 6 been met? | AMC6 SPO.GEN.131(b)(2) |  |
| CC57 | Do navigational chart applications display all necessary information in an appropriate form? | AMC7 SPO.GEN.131(b)(2) |  |
| CC58 | If an In-Flight Weather application is to be used, how have the additional requirements of AMC 8 been met? | AMC8 SPO.GEN.131(b)(2) |  |
| CC59 | If own-ship position is to be displayed, does the aircraft also have a certified navigational moving map display? (Mandatory except on VFR flights) | AMC9 SPO.GEN.131(b)(2) |  |
| CC60 | Does the position source for own-ship display meet the requirements of AMC6 NCC.GEN.131(b)(2)? |  |
| CC61 | Is the own-ship position removed when position data is lost? | AMC9 SPO.GEN.131(b)(2) |  |
| CC62 | Are the flight crew able to unambiguously differentiate the EFB function from avionics functions available in the cockpit, and in particular with the navigation display. |  |
| CC63 | If the own-ship position is displayed on terminal charts (SID, STAR or approach plates) is the label ‘AIRCRAFT POSITION NOT TO BE USED FOR NAVIGATION’ displayed? |  |
| CC64 | Is the EFB own-ship symbol different from that used in the aircraft’s primary navigation display. |  |
| CC65 | How is map orientation displayed (e.g. North-up or track-up), and how is this indicated? |  |
| CC66 | Apart from day-VFR with visual references, is information on track/ETA/Altitude/coordinates/speed removed? |  |
| CC67 | How do crew disable the own-ship position indication? |  |
| CC68 | Does EFB training emphasise that EFB own-ship position should not be used as a primary source of navigation? |  |
| CC69 | Do procedures specify the intended use of the own-ship position? |  |
| CC70 | Do procedures include EFB into the regular scan of flight deck systems indications, in particular, systematic cross-check with avionics before being used, whatever the position source? |  |
| CC71 | Have procedures been developed for the case of identification of a discrepancy between the EFB and Avionics? |  |

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| **Subsection 2 – SPO operations with a non-complex aircraft** | | | |
| **#** | **Requirement** | **Regulatory Reference** | **Operator’s Reference in Ops Manual or EFB Policy and Procedures Manual** |
| CN1 | How has it been demonstrated that if it the EFB or its viewable stowage become detached that it will not jam the flight controls, damage flight deck equipment or cause injury? | AMC2 SPO.GEN.131(a) (AMC1 NCO.GEN.125) |  |
| CN2 | Does the EFB, or its viewable stowage, obstruct visual or physical access to controls, flight crew egress, or external vision? |  |
| CN3 | Does the viewable stowage allow easy access to all EFB controls? |  |
| CN4 | Are all cables of adequate length and adequately secured? |  |
| CN5 | How have the crew familiarised themselves with the functions of the EFB? | AMC2 SPO.GEN.131(b) (AMC2 NCO.GEN.125) |  |
| CN6 | Is an EFB user guide provided to the crew? |  |
| CN7 | Have procedures been implemented to ensure that the crew check EFB operation, battery power, and version validity of databases prior to flight? |  |
| CN8 | What paper backup is available when a chart application or electronic checklist is used? |  |
| CN9 | If electronic Performance or Mass and Balance application is used, how is this verified against AFM data? |  |
| CN10 | Where is it stated that an Airport Moving Map Display is not to be used as a primary means of navigation? |  |
| CN11 | If the EFB displays information related to the aircraft position in flight, navigation, surroundings in terms of e.g. terrain or traffic, or attitude are used, how has the pilot in command been made aware of the potential for misleading or erroneous information? Is it clearly stated that these functions can only be used as an advisory or supplementary means? |  |