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**Federal Aviation  
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# InFO

Information for Operators

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*An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.*

**Subject:** The Apple iPad and Other Suitable Tablet Computing Devices as Electronic Flight Bags (EFB)

**Purpose:** This InFO provides information about the use of the iPad and other suitable tablet computing devices as EFBs. In addition, it provides information about EFB use and the Flight Standards Information Management System (FSIMS) process that may be helpful to operators seeking authorization to use an EFB.

**Background:** Recently, the Federal Aviation Administration (FAA) authorized a certificated operator to use an iPad as a Class 1 EFB. In this particular case, the operator is using the iPad with the *Jeppesen Mobile TC App* to display approach plates, terminal procedures, and airport diagrams. This operator worked closely with their certificate holding district office, Jeppesen, and Apple during the application and evaluation process.

**Applicable Guidance:**

- FAA Order [8900.1](#), *Flight Standards Information Management System*, volume 4, chapter 15, section 1, *Electronic Flight Bag Operational Authorization Process*, and volume 3, chapter 18, section 3, *OPSPEC/MSPEC/LOA A061, USE OF ELECTRONIC FLIGHT BAG*.
- FAA Advisory Circular (AC) [120-76A](#), *Guidelines for the Certification, Airworthiness, and Operational Approval of Electronic Flight Bag Computing Devices*. Note: This AC is currently being revised to harmonize with the FSIMS sections cited above.
- FAA AC [91-78](#), *Use of Class 1 or Class 2 Electronic Flight Bag (EFB)*, has information for those conducting operations under Title 14 of the Code of Federal Regulations (14 CFR) part 91.

**Hardware:** The iPad is commercial-off-the-shelf (COTS) electronic hardware that is not approved or certified by the FAA. However, it can be authorized for use by a principal operations inspector if it meets the EFB criteria discussed in FSIMS, volume 4, chapter 15, section 1 and AC 120-76A. For certificate holders and 14 CFR part 91 subpart K (91K) program managers, operation specification or management specification (OpSpec/MSpec) paragraph A061 must be issued to authorize the use of EFBs. For part 91 operators other than 91K, FAA authorization for use is not required. However, installation and airworthiness requirements specified in AC 120-76A are still applicable.

**Software:** The *Jeppesen Mobile TC App* displays approach plates, terminal procedures, and airport diagrams and is defined as a Type B software application per AC 120-76A. The display of en route chart aeronautical information was not part of this particular evaluation or authorization. To be used in critical

phases of flight, an EFB displaying Type B software must be secured and viewable. A kneeboard is one way to accomplish this.

**Note:** Class 1 EFBs with Type B software must not display the aircraft's position, also referred to as "own-ship position," in accordance with current policy (see AC 120-76A, paragraph 7c, and Appendix B). The *Jeppesen Mobile TC App* inhibits own-ship position.

**Operator Authorization:** The authorization process the FAA uses for certificate holders and program managers is contained in FSIMS, volume 4, chapter 15, section 1. Although the iPad is a relatively new computing device, when using it as an EFB it is treated the same as any other COTS device, subject to the authorizations and limitations applicable to portable Class 1 or 2 EFBs. OpSpec/MSpec A061 is used to authorize EFB devices. Non-standard text can be added to document an evaluation period. At the end of a successful evaluation period, the operator is authorized to use the iPad as an EFB to replace certain required paper products.

Operators that desire to use the iPad or any other suitable tablet computing device as a substitute for paper products, including aeronautical information such as approach plates, terminal procedures, and airport diagrams, must show compliance with the guidance in FSIMS and/or AC 120-76A. Each authorization process is considered unique, because of differences in each operator's aircraft types, training programs, operational procedures, intended function of the EFB, etc.

For part 91 operators other than 91K, the use of an EFB in lieu of paper is the decision of the aircraft operator and/or the pilot in command. AC 91-78 and AC 120-76A contain guidance on replacing paper products, including aeronautical charts, with an EFB. Operators transitioning to a paperless cockpit should undergo an evaluation period during which the operator should carry paper backups of the material on the EFB. During this period, the operator should validate that the EFB is as available and reliable as the paper-based system being replaced. Part 91, subpart F operators must ensure compliance with 14 CFR part 91 § 91.503 at all times. All part 91 operators should also document compliance with § 91.21, *Portable electronic devices*.

**Contact:** Questions or comments regarding this InFO should be directed to Steve Morrison, Future Flight Technologies Branch, AFS-430, at (202) 385-4936.