

FLIGHT CREW INFORMATION FILE

FROM:	TO:	RELEASE DATE:
HQ AMC/A3V	All MAF Units	3 Feb 2017

SUBJECT: EFB Operations Update

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1. HQ AMC/A3V FCIF 17-02-02. This FCIF is approved for release by Brigadier General Brian S. Robinson and applies to all AMC, ANG, AFRC, and PACAF MAF units. All others take for information only. Retain until rescinded. Rescinds FCIFs 14-02-04 and 15-03-03.
2. AMC/A3 has approved reduced paper operations.
3. OSA/EA will continue to follow paperless cockpit guidance contained in FCIF 15-11-16 as well as paragraphs 4, 5, 9, and 10 of this FCIF.
4. **EFB Usage Approval:** Reference to the EFB (to include during flight operations below 10,000' MSL) is authorized anytime a crewmember would normally reference applicable Flight Manuals, AFI guidance, or any other directive (normal/abnormal/emergency procedures); the use of sound CRM principles always applies whenever a crewmember needs to reference the EFB.
5. **Flight Information Publication (FLIP) Applications:** FLIP apps listed on the EFB Baseline Configuration document are approved for referencing current FLIP during all phases of flight.
6. **Paper Flight Manual Requirements:** IAW AFI 11-215, AMC authorizes use of the EFB to display flight manuals (Dash Ones, Checklists, FCMs, etc.) at all altitudes for all situations, normal/abnormal/emergency. AFMC has approved a waiver to AFI 11-215, paragraph 8.2.7.3., that requires "applicable paper flight manuals be available on the aircraft to ensure data redundancy (in case of viewing device failure)." AMC's strategy to ensure flight manual data is available, a minimum of 3 EFBs with current and complete flight manuals will be carried. **EXCEPTION:** The following minimum paper flight manual requirements still exist:
 - C-5: Checklists as specified in AFI 11-2C-5V3 Table 6.1
 - C-17: Abbreviated checklists (all crewmembers for their crew position)
 - C-130H & C-130J: Flight Crew Checklist for primary crew positions
 - KC-135: For nuclear missions, refer to the Nuclear Support Mission Concept of Employment (CONEMP). For all other missions, 1 paper copy of the following: Pilot Checklist, Navigator Checklist (as required), Boom Operator Checklist, and Cargo Loading/Off-Loading Procedures Checklist.
 - KC-10: 1 paper copy of Pilot/FE normal, emergency, and AR procedures checklists, 1 paper copy of Boom Operator normal, emergency, and AR procedures checklists, and 1 paper 1-1 (Performance Data)
 - AE: Checklists as specified in AFI 11-2AEV3 Table 6.1

AUTHORITY		POSTING DATE	STATUS
AMC/A3			Retain Until Rescinded
AIRCRAFT	FCIF #	CREW POSITION	EPUBS DATE
ALL	17-02-02	ALL	

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7. **Paper Route Navigation Kit Requirements (FLIP):** Paper Route Navigation Kits are no longer required if a minimum of 3 EFBs have the NGA AERO app loaded with the current and complete cycle of FLIP. All aircrew (AE and C-130H LMs N/A) should ensure the AERO app is loaded with current and complete worldwide FLIP before every flight. Loading the current and complete cycle in AERO meets all the previous paper Route Navigation Kit requirements. (**EXCEPTION:** Topographical charts: AERO may or may not provide sufficient topographical chart coverage for MDS/mission specific requirements.) This requirement does not prevent using a different application for navigation, provided the app is approved on the EFB Baseline Configuration document and loaded with current FLIP.

8. **Paper Mission Kits:** Paper Mission Kit requirements are defined in MDS vol 3s. These traditionally contained a variety of AFIs, regulations, forms, customs documents, etc. MDS specific vol 3 guidance varies and EFB guidance may or may not be addressed. Unless otherwise addressed, units should evaluate paper mission kit requirements and carry only items not conducive to EFB usage. If there is any doubt, carry the paper version.

9. **EFB Supplemental Procedures:** The attached EFB Supplemental Procedures checklist insert contains EFB specific procedures, intended to supplement normal aircraft procedures. If there is a conflict between the attached procedures and any other flight manual guidance, the flight manual guidance takes precedence. There is no requirement to carry a hardcopy of this checklist insert.

10. Comments or suggestions regarding the use of Electronic Flight Bag may be sent through your local Stan/Eval office to your MDS HQ AMC/A3V representative.

11. POC for this FCIF is: Lt Col Joe Watson, AMC/A3VK, DSN 779-7848.

//SIGNED//

BRIAN S. ROBINSON, Brig Gen, USAF
Director of Operations, Strategic Deterrence and Nuclear Integration

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Electronic Flight Bag Supplemental Procedures

EFB Pre-Flight Checklist

Airplane mode

1. Airplane mode -> ON
2. WiFi -> OFF (unless authorized to use external GPS or ADS-B using Wi-Fi)
3. Bluetooth -> OFF (unless authorized to use external GPS or ADS-B using Bluetooth)

Autolock

1. Settings -> Display & Brightness -> Auto-Lock
2. Select "15 Minutes" or "Never"

Passcode Lock

1. Settings -> Touch ID & Passcode
2. Enter Passcode
3. Select "Require Passcode" and select "After 4 hour"

EFB Post-Flight Checklist

Autolock

1. Settings -> Display & Brightness -> Auto-Lock
2. Select "5 Minutes"

Passcode Lock

1. Settings -> Touch ID & Passcode
2. Enter Passcode
3. Select "Require Passcode" and select "Immediately"

EFB SUSPECTED ELECTRONIC INTERFERENCE

If electronic interference is suspected while using EFB(s), the following procedures should be accomplished without delay:

AIRPLANE MODE (Both EFBs) VERIFY

Verify both EFBs are in Airplane mode. If not in Airplane mode, turn Airplane mode to ON.

ALL PEDs OFF

Ensure all PEDs are turned off.

If interference continues:

EFBs (Both) OFF

If interference ceases:

If feasible, determine which EFB is causing the interference by turning one EFB on at a time. If only one EFB is causing interference, complete flight using unaffected EFB.

If interference resumes with each EFB, turn both EFBs off and accomplish the DUAL EFB FAILURE checklist.

If interference continues:

Accomplish the DUAL EFB FAILURE checklist.

Determine what additional actions (if any) are required.

After landing:

Report incident to DOV or OGV. OGV will forward a detailed report to AMC/A3V and AMC/A3R for troubleshooting.

EFB BATTERY OVERHEAT OR FIRE

CHARGING ADAPTOR/EXTERNAL BATTERY UNPLUG

Remove device from external battery or electrical outlet if it is currently plugged in.

FIRE EXTINGUISH

Use a fire extinguisher or water to extinguish the fire and prevent its spread to additional flammable materials.

DEVICE DOUSE WITH LIQUID

After extinguishing the fire, immediately douse the device with water or other liquid to cool the device and prevent additional battery cells from reaching thermal runaway.

WARNING: DO NOT ATTEMPT TO PICK UP OR MOVE A SMOKING OR BURNING DEVICE.

DO NOT MOVE THE DEVICE UNTIL CERTAIN THE FIRE IS EXTINGUISHED AND THE DEVICE IS COOL.

WARNING: DO NOT COVER OR USE ICE TO COOL THE DEVICE. ICE OR OTHER MATERIALS INSULATE THE DEVICE, INCREASING THE LIKELIHOOD THAT ADDITIONAL BATTERY CELLS WILL REACH THERMAL RUNAWAY.

EFB OR APPLICATION UNRESPONSIVE

EFB BATTERY POWER CHECK

Verify EFB battery indicator displays at least 10% battery power available. Connect external battery if necessary.

When sufficient battery power is available:

HOME BUTTON QUICKLY PUSH TWICE

Scroll until the unresponsive application is in the center.

UNRESPONSIVE APP SWIPE APP UP

Swiping the application up will force quit the application.

If EFB or application still unresponsive:

SLEEP/WAKE BUTTON PRESS AND HOLD

Press and hold the Sleep/Wake button until the red slider appears. Release the Sleep/Wake Button, then drag the slider to turn EFB off.

After EFB is shut down:

SLEEP/WAKE BUTTON PRESS AND HOLD

Press and hold the Sleep/Wake button until the Apple logo appears. Restart may take a short time.

If EFB or application still unresponsive:

SLEEP/WAKE BUTTON AND HOME BUTTON PRESS AND HOLD
SIMULTANEOUSLY

Reset EFB by pressing and holding both the Sleep/Wake button and Home button for at least ten seconds until Apple logo appears.

If EFB or application still unresponsive:

EFB cannot be recovered. Accomplish the SINGLE EFB FAILURE or DUAL EFB FAILURE checklist, as appropriate.

EFB REQUIRED E-DOCUMENT UNAVAILABLE

Loss of an E-document may be due to file corruption, loss of document reader capability, or other reason.

NOTE: If GoodReader repeatedly crashes when opened, it may be due to a corrupted E-document. Select GoodReader in the Settings application and select "*Don't open anything*" to ON. Open GoodReader again to determine if action was successful.

If an E-document is unavailable and the E-document is not available on another EFB, CTK laptop, or paper backup, contact Command & Control (C2) to determine a suitable course of action.

SINGLE EFB FAILURE

This procedure assumes that only two EFBs are available on the aircraft. If you have access to more than two EFBs, it is not necessary to accomplish this procedure if the additional EFB can be utilized to complete the flight. Determine if paper backups and/or CTK laptop are sufficient to execute mission.

Prior to block-out:

Consult with C2 to determine appropriate action.

After block-out:

CHARTS, DOCUMENTS, FLIGHT MANUALS. DETERMINE ONBOARD AVAILABILITY

Confirm at least one operational EFB, or paper backup, is available with required documents and charts.

If appropriate charts, documents, and flight manuals are NOT available:

If still on the ground prior to takeoff, do not take off. Consult with C2 for appropriate action.

If inflight, contact C2 to obtain any additional information required (e.g., Flight Manual information, AFI information, etc.).

ALL EFBs FAILURE

This procedure should be used when ALL EFBs fail after block-out. Determine if paper backups are sufficient to execute mission.

Prior to block-out:

Consult with C2 to determine appropriate action.

After block-out, but prior to takeoff:

Do not take off. Consult with C2 to determine appropriate action.

After takeoff:

TERMINAL CHARTS DETERMINE ONBOARD AVAILABILITY

If necessary charts are NOT available onboard:

Consider weather, operating region, fuel reserves and destination airport characteristics (e.g., terrain, traffic density, etc.). A flight may continue to an airport without Flight Information Publications application terminal chart data if the Aircraft Commander and C2 agree that such a continuation will not adversely affect the safety of the flight.

Notify C2 of situation and determine a mutually agreeable course of action.

Approach planning:

Utilize the aircraft Flight Management System to decrease workload and obtain relevant instrument procedure information (e.g., STAR, instrument approach, etc.). Contact C2 to obtain any additional necessary terminal chart information.

In time critical situations, ATC may be able to provide required approach information such as localizer frequency and course, minimum altitudes, etc. Crews should not rely on ATC for chart information unless no other alternative exists.

ACCESS TO OTHER REQUIRED INFORMATION . . . OBTAIN AS NECESSARY

If access to other required information (e.g., AFI, Flight Manuals, etc.) is not available, contact C2 to obtain required information. C2 may be able to relay information via ACARS or voice communications.