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APPENDIX: 3

BULLETIN TYPE: Joint Flight Standards Handbook Bulletin for Air Transportation (HBAT) Airworthiness (HBAW), and General Aviation (HBGA)

BULLETIN NUMBER: HBAT 99-16A, HBAW 99-14A, and HBGA 99-20A

BULLETIN TITLE: Announcement of New Database System on the FAA Intranet: Airplane Flight Manual Revisions and Aircraft Manufacturer Operations Bulletins

EFFECTIVE DATE: 10-25-99

AMENDED DATE: 10-27-99

TRACKING: NTSB Safety Recommendation A-98-89 and A-98-103

NOTE: THIS BULLETIN REQUIRES PTRS INPUT - SEE PARAGRAPH #5.

NOTE: This bulletin is being amended to correct the PTRS number. See Paragraph #5. Some addressees received this bulletin with the numbers HBAT 99-17, HBAW 99-14, and HBGA 99-20.

1. PURPOSE. The purpose of this handbook bulletin is to announce a system with which Flight Standards (AFS) personnel at all levels may be continually aware of current airplane flight manual (AFM) revisions approved by the FAA and operations bulletins generated by the manufacturer. This bulletin responds to the National Transportation Safety Board (NTSB) Safety recommendation A-98-89 and A-98-103.

2. BACKGROUND. On January 9, 1997, an aircraft accident near Monroe, Michigan resulted in 29 fatalities. During its investigation of the accident, the NTSB determined that the manufacturer distributed an operations bulletin and a Federal Aviation Administration/Centro Tecnico Aeroespacial (FAA/CTA, Brazil) AFM revision 9 months before the accident. The manufacturer's operations bulletin titled "Operations in Icing Conditions" recommended that the pilot should maintain certain minimum airspeeds when operating in icing conditions and should turn wing and tail ice protection systems on at the first sign of ice formation. Twelve days after the manufacturer's operations bulletin was published, an AFM operating procedures revision was released that required the wing and tail ice

protection systems to be turned on at the first sign of ice formation. Absent in the AFM revision was the recommendation relating to minimum airspeeds in icing conditions.

A. NTSB Finding. The NTSB determined that one of the probable causes of the accident was the FAA's failure to ensure that the revised FAA/CTA-approved procedure for operating the airplane's ice protection systems was implemented by U.S. certificated air carriers.

B. NTSB Recommends Better Transfer of Information to AFS Personnel. The accident investigation conducted by the NTSB raised a number of issues relating to FAA processes. The NTSB final report contained a number of recommendations including the following:

(1) "Require principal operations inspectors (POI) to discuss the information contained in airplane flight manual revisions and/or manufacturers' operational bulletins with affected air carrier operators and, if the POI determines that the information contained in those publications is important information for flight operations, to encourage the affected air carrier operators to share that information with the pilots who are operating those airplanes."

(2) "Ensure that Flight Standards personnel at all levels (from aircraft evaluation groups to certification management offices are informed about all operations bulletins and airplane flight manual revisions, including the background and justification for the revision."

C. FAA Analysis and Recommendations. A detailed analysis of current regulatory requirements and current procedures was conducted by the Transport Airplane Directorate Standards staff in Seattle, Washington together with the Seattle Aircraft Evaluation Groups (AEG). A set of recommendations was attached to their report, including a recommendation (1) that AFM revisions coming to the ACO be coordinated with the appropriate AEG office, and (2) that the Seattle AEG establish a system to provide AFM revision and operations bulletin information to FAA personnel.

D. FAA Work Group's Implementation Plan. An FAA AFM Safety Information Work Group consisting of representatives from the Transport Airplane Directorate, the Seattle ACO, the Seattle AEG, the Northwest Mountain Region (ANM), and the Seattle Flight Standards District Office (FSDO), identified a need for an electronic database system which would contain a list of AFM revisions, operations bulletins, and relevant status markers. The system would permit appropriate inspectors to stay up to date with changes approved by regulators and changes recommended by manufacturers. The system

would also permit inspectors to document the actions of operators in implementing those changes.

Note: Manufacturers use various terms other than 'operations bulletin' for bulletins of an informational or advisory nature. Other terms include All Operator Letter, Communiqué, Informational Directive, Communications Directive, and others.

E. Database System, SPAS, and Future Rules. The work group developed an electronic database system listing FAA-approved AFM revisions and operations bulletins generated by aircraft manufacturers. Initially only transport category (Title 14 of the Code of Federal Regulations (14 CFR) part 25) airplanes will be listed; however, 14 CFR parts 23, 27, and 29 aircraft will be added as the system is enhanced. Future plans also include the development of a measure in the Safety Performance Analysis System (SPAS) to show each operator's performance in implementing AFM revisions and manufacturer operations bulletins. Provisions will be included in SPAS for inspectors to document implementation by the operator and surveillance by the inspector. Future rulemaking will propose to strengthen regulatory language so that it is perfectly clear how operators would be expected to respond to AFM changes and manufacturer operations bulletins.

3. ELECTRONIC DATABASE -- LOCATION and COMPOSITION. The database is posted on the FAA Intranet (a.k.a. FAA Interweb) through AFS-600's Intranet Web site at <http://av-info.avr.faa.gov>. Instructions for operating the database are contained in Appendix A of this bulletin.

A. Maintaining the Database. The database will be maintained by AFS-600 in Oklahoma City, OK. The appropriate ACO is the repository for AFM revisions; the appropriate AEG is the repository for manufacturer operations bulletins. As part of the database posting process, the appropriate ACO or AEG office will review each AFM change and each manufacturer operations bulletin, respectively, and will flag those flight manual revisions and bulletins requiring special attention by operators.

B. Records in the Database. The database is composed of records showing the number, the date, and the name of the document corresponding to each AFM revision and each operations bulletin listed. The records do not include full-text information reflecting the content of the AFM revision or the operations bulletins.

C. Inquiries about Records. The ACO and AEG offices are not responsible for the systematic distribution of AFM revisions and operations bulletins. However, POI's are encouraged to consult with

the appropriate ACO or AEG when in-depth information is needed concerning an AFM revision or an operations bulletin.

NOTE: It is the operator's responsibility to obtain all airplane flight manual revisions directly from the aircraft manufacturer (see HBAW 99-07, HBAW 99-07, and HBGA 99-10).

4. ACTION.

A. Operator Notification. Principal operations inspectors are requested to inform operators of the FAA database and its intended use during surveillance.

B. Database Use During Surveillance. The database will be used by inspectors in conjunction with scheduled and no-notice surveillance of the operator's system for receipt and implementation of AFM revisions outlined in HBAW 99-07, HBAW 99-07, and HBGA 99-10. Inspectors will use the FAA's database and compare it with the operator's AFM(s), manual(s), and training program(s). If surveillance reveals that the operator's AFM revisions do not coincide with those in the FAA's database, the operator will be notified of this finding, verbally and in writing, and will be requested to take corrective action immediately.

5. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS). Principal operations inspectors shall make a PTRS entry to record the actions directed by this bulletin. The PTRS entry for distribution of this bulletin to the operator shall be listed as activity code 1381, and the "National Use" field entry shall be HBAW9916. The comments section of the PTRS shall be used to record interaction and response of the operator.

6. INQUIRIES. This bulletin was developed by AFS-200/300/800 with significant input from the Northwest Mountain Region Work Group. Any inquiries from operators may be directed to the POI having oversight responsibility at the Certificate Holding District Office (CHDO). Principal inspectors and Regional Office Staff may direct any inquiries regarding this bulletin to either Will Swank or Hop Potter at (202) 267-9836. Through November 30, 1999, any inquiries with respect to the operation of the Intranet database should be directed to Patrick Atchison, ANM-230, (425) 227-2245. **After November 30, 1999, any inquiries with respect to the operation of the Intranet database should be directed to Dave Fox, AFS-620, (405) 954-6502.**

7. LOCATION. This bulletin will expire when it is incorporated into volume VI, chapter 2, section 6 of FAA Order 8400.10, Air Transportation Operations Inspector's Handbook, volume 2, chapter 79, section 2 of FAA Order 8300.10, Airworthiness Inspector's Handbook, and volume 2, chapter 77 of FAA Order 8700.1, General Aviation Operations Inspector's Handbook. Until the new material is incorporated, inspectors shall make a written notation of this bulletin in the margin of the indicated chapter and section.

/s/

L. Nicholas Lacey

Director, Flight Standards Service, AFS-1

APPENDIX A
HBAT 99-16A, HBAW 99-14A and HBGA 99-20A

THE AFM REVISION DATABASE

1. GETTING STARTED.

A. Overview: The Airplane Flight Manual (AFM) revision database is designed to be used by Principal Inspectors (PI) to help track the AFM revision level of the operator's AFM for which PI's have oversight responsibility. It also allows PI's to see a listing of the Aircraft Manufacturer Operations Bulletins available for the same aircraft. The database may be accessed through the FAA Intranet (a.k.a. FAA Interweb) using active server pages. This means that the database resides on an Intranet server and is interactively accessed with easy to use screens that provide the information that the principals need. There are several terms that are used that may not be familiar to some users. They are defined as follows:

(1) AdHoc: A term used to signify that the user has a choice of items to ask of the database.

(2) Browser: This is the program that accesses the Internet/Intranet; in our case it is Microsoft Internet Explorer 4.0.

(3) Default: A setting or screen that appears as the programmed choice if the user makes no other choice.

(4) Internet email address: The naming convention for FAA employees' email address is generally first name, followed by a period, last name, followed by an @ and then faa.gov, (i.e., john.doe@faa.gov). Please check with your LAN Administrator if yours does not follow this naming convention.

(5) Query: A term used to signify asking a question.

(6) URL (or Internet address): Uniform Resource Locator is the long label used to access a certain area of the Internet/Intranet. This URL usually starts with http://www and then the label.

(7) Wildcard: A term used when asking a question of the database. A wildcard represents all of the numbers or letters that could possibly follow the text already entered. For example, if 7% (% being the wildcard) is entered in the aircraft model block, a display with every combination that has a 7 as the first digit will be presented, (i.e., 727, 737, 747, 757, 767, 777).

B. Internet Browser Setup. There are several items that must be set up with Internet Explorer 4.0 to make the program work as it should. The browser should be set to refresh the pages as they

appear so the information seen is always current. To make sure that pages are always refreshed, follow the following procedure:

- (1) Load Internet Explorer 4.0 by double-clicking on the icon on the desktop;
- (2) Click on "view" from the top menu bar;
- (3) Click on "Internet options" from the drop down menu;
- (4) In the center box labeled Temporary Internet Files, click on "settings;"
- (5) Under the title "check for newer versions of stored pages," click on "every visit to the page." A black dot will appear on the white background just before the words;
- (6) Click on the "OK" button, and then "OK" again on the next screen. This sequence returns the user to the starting point.

C. Viewing Internet/Intranet Pages - Fullscreen Mode. AFM revision database pages are best viewed in the "Fullscreen" mode. To select "Fullscreen" mode, perform the following:

Along the top of the screen in Internet Explorer is a menu bar with the words "File", "Edit", "View", etc. Below the menu bar is a row of icons. When the mouse pointer is placed over an icon, a box will pop up giving a text explanation of the icon. Towards the right end of the row of icons is one that looks like two pieces of paper, one on top of the other. This is the "Fullscreen" icon. Click on it once and the menu bar (text) will disappear and the screen will get larger. To return to the previous setting, click on the "Fullscreen" icon.

D. Screen (Page) Viewing. To view previous screens or pages in the database, the "back" or "forward" buttons may be used. These are located on the left side of the icon bar. These buttons may be used to move either "back" or "forward" one page at a time.

E. Printing Reports. To print the present screen, the "print" icon (looks like a printer) on the icon bar may be used. Any screen that is viewed can be printed by clicking on the print icon. Printing a saved report on a monthly basis is a convenient way to keep up to date on AFM revisions.

2. PROCEDURES FOR USING THE DATABASE.

A. Program Entry. The following procedure is used to access the "Main Page" of the AFM Revision Program:

(1) Start Internet Explorer if it is not already running.

(2) In the "address" field enter **http://av-info.avr.faa.gov** and press the "enter" key. This "address" is the FAA Intranet Web Site for AFS-600 and must be typed exactly as it appears.

(3) Scroll down using the arrows on the right side of the screen until the title "AFM Revision System (FAAAFMS)" appears. Place the mouse cursor over the AFM Revision System title and click the left mouse button.

(4) The AFM Revision Status Site "Main Page" is presented with the FAA logo in the top left and a series of blue buttons just below the logo.

(a) FAA Logo Function. When the mouse pointer is positioned over the FAA logo, the pointer changes into a pointing hand. A click of the left mouse button will allow the user to return to the "Main Page" from anywhere in the program.

(b) Report and Search Buttons. When the mouse pointer is moved over any of these buttons, they will change to a green color. The function of each of these buttons are explained in B through E below.

B. AdHoc Search. The "AdHoc" procedure is described first because it is used to find out what is in the database before generating specific reports. For example, to determine how many different make, model, and series (MMS) of Boeing 737's there are, an AdHoc search would be performed. The search would reveal that there are 431 different MMS of Boeing 737's in the database. The AdHoc search button is "read only," which means the data cannot be manipulated and there are no user actions except for refining the search to specific operations bulletins. The following procedure is used to do an AdHoc search.

(1) From the "Main Page" click on the "AdHoc" search button. A query page appears that allows input for any, or all, of three question fields - "make, model, or document number." The program is programmed with default data in the three question fields. An "M%" in the first field and a "%" symbol in the next two fields.

NOTE: The program defaults to display an "M" in the model field in the event the user accidentally pressed the "query database" bar. Without the default "M," the entire database would load. However, with the default "M" only aircraft that begin with the letter "M" would load. (It would take a significant amount of time for the entire database to load.)

(2) If all of the Lockheed aircraft are desired, enter Lockheed in the "make" field and delete the letter "M" in the field before beginning the search. The "%" symbol in the "make" field may be deleted or left as is because there are no other makes of aircraft that have the exact letters of "Lockheed." Leave the "%" symbol wildcard in the "model" and "document number" fields. In most cases, inspectors will not know the "document number" of the aircraft they are looking for; however, if the document number is known it could be entered. If the "document number" is known and is used, delete the "M" in "make" field and leave the "%" symbol wildcard in the "make" and "model" field.

(3) Information may be entered in one or all of the fields, but, each field must have appropriate information or the wildcard "%" symbol in it. If data are not entered in a field, leave the "%" wildcard symbol. Instructions on the query screens explain the wildcard application but are confusing as there is no "Boern" make of airplane. Instructions also say that each field must be filled in. The "%" wildcard symbol is considered filled in when used. The main thing is to not leave a line blank.

NOTE: It is important to remember when entering data into the fields that the "make" of aircraft desired is entered as Boeing, Lockheed, Bombardier, etc. When entering the model, it must be entered as 737 or 1011, not B-737 or L-1011. Each manufacturer has its own way of submitting data for populating the database. Often those data are not submitted and entered in the database in a uniform format. Consequently, a general query should be done first to see how the data are formatted. DeHavilland is an example. DeHavilland has only have one aircraft in the database, the DHC-8. That aircraft "make" is listed as DeHavilland DHC-8. The models are listed as 315, 106, 202HT, etc. If "DeHavilland%" is entered on the first line the user will be presented with a list of all the models of DHC-8's in the database.

(4) After filling in the three fields, click on the "query database" button. The results of the query will be presented on the next screen. Based on the results of the initial query, it may be determined if the query needs to be refined. If no information is returned, there is either no information in the database, or one of the data fields has incorrect information. Ensure that the letter "M" has been deleted in the make field if it is not part of the aircraft make requested.

(5) Other than viewing data on the requested aircraft, the only option available on this screen is to view operations bulletins relating to the aircraft models listed. Notice that some of the

model numbers are in a different color than the data in the other fields. This color difference indicates that operations bulletins from the manufacturer are available online for that model. To view an operations bulletin, place the mouse pointer over the model number and click the left mouse button after the pointer changes to a pointing hand.

(6) To return to the previous screen, press either the "return" button at the top of the OPS bulletin listing or the "BACK" arrow in the Toolbar. To return to the "Main Page" click either the "Main Page" button or the FAA Logo.

C. New Report Function: The "new report" function affords the inspector the ability to create individualized reports on specific aircraft in a particular operator's fleet. Any reports created and saved are stored on the individual's computer and are not accessible to others.

(1) Creating New Reports. New Reports are created using a two-step process. The first step is to ask for a range of aircraft to chose from, for example, all Boeing 727's. The second step is to choose a specific aircraft make, model, series from that list corresponding to the operator's fleet. A single report may contain only one make, model, series or as many make, model, series desired. Inspectors will normally create a separate report for each certificate holder. Before a "new report" can be created, the program requires the requester's Internet email (not cc:Mail) address. The Internet email address format for FAA personnel is shown in paragraph 1.A.(5) above.

(a) Customized Reports. To create a customized report, use the following steps:

(i) From the "Main Page" move the mouse pointer over the "new reports" button and click the left mouse button.

(ii) A screen will be presented requesting a "report name" and an Internet email address.

NOTE: The first time this page is presented, both fields will be blank.

(iii) In the "report name" field, enter a name that that is easily recognizable, for example, the operators name, or the operators name and aircraft associated with this report. Failure to enter a name will result in an error message. An error message will also be displayed if a previous report name is entered in the field.

NOTE: To use a previous report name, the previous report must first be deleted. (See "delete reports" below). The instructions on the screen refer to "persistent reports." A "persistent report" means the program remembers the last information entered and presents this information on subsequent access. This memory feature is helpful in that the last email address entered is automatically displayed. However, the previously entered report name may cause an error message if not changed before clicking on the "enter info" button. The previously used report name may be deleted by erasing or overwriting it.

(iv) Enter your Internet email address in the "Email Address" field. (If unsure of the correct email address, please contact the LAN administrator)

NOTE: Either the mouse pointer or TAB key may be used to navigate between fields on this screen.

(v) After the report name and email address information has been entered, click on the "enter info" button.

NOTE: Once the "enter info" button has been selected, the report name is saved even though no specific aircraft data have been entered. If the decision is made to quit the program without entering aircraft data, the report name cannot be reused unless it is deleted.

(vi) The screen displayed at this point is the same "database query form" screen displayed in the "AdHoc search" procedure. Notice that "Current Report" is listed as the "report name" selected for this report and the "current mode" is listed as "UPDATE MODE."

(vii) Aircraft selection is the same as in the "AdHoc search" procedure in paragraph 2.B. above.

(viii) After filling in the three fields, click on the "query database" button. The results of the query will be presented on the next screen. Based on the results of the initial query, it may be determined whether or not the query needs to be refined. If no information is returned, there is either no information in the database, or, one of the data fields has incorrect information. Ensure that the letter "M" has been deleted in the make field if it is not part of aircraft make requested.

(ix) Adding To The Report. In the "update" mode the screen will display an extra box under the "ADD" column on the far right of

each line. If the aircraft desired is listed, click on the "ADD" box and a black check mark will appear in the box.

(x) Once all the aircraft have been selected by "checking" the "add" box, move the mouse pointer over the "Finish" button and click the left mouse button. This procedure adds the aircraft selected to the report; however, the opportunity still exists to add different makes and models of aircraft to the same report.

NOTE: If the "cancel" button is clicked at this point, the program returns to the "Main Page." Although the name of the report is saved, there will be no data in it and the "report name" must be deleted to use that particular name again. Use the "cancel" button carefully. If it is not desired to add any of the listed aircraft, click the "finish" button which returns the user to the selection screen. The "cancel" button will return the program to the "Main Page" and the user will have to start the entire process over.

(xi) After clicking the "finish" button the next screen shows that the report has been updated and allows other aircraft to be selected (YES button), or the entire report to be finished (NO button). Clicking the "NO" button will return the user to the "Main Page" and the report is saved.

NOTE: Clicking the "yes" button allows another aircraft to be added to the report. This process may be repeated for as many makes and models of aircraft desired on this report. Ensure that the "NO" button is clicked after the last aircraft is added to the report to save the report and return to the "Main Page."

D. List Report Function. The "list reports" function allows access to all of an individual's saved reports. Once reports are set up, they can be subsequently checked to determine if there are revisions to the operator's AFM or aircraft manufacturer OPS bulletins that have been issued for that aircraft. If the Aircraft Evaluation Group (AEG) determines that an AFM revision has an important change, a "priority" field is activated for that particular aircraft so that the inspector can detect this change immediately. The following procedure is used to retrieve saved reports:

(1) From the "Main Page" click on the "list reports" button. The "stored reports page" is presented. The previously entered Internet email address should appear. If the email address is missing enter it now.

(2) The saved reports will be listed above the email address and should be easily recognizable. Naming reports using the operator's

name is an effective strategy when saving reports. Simply click on the operator's name to retrieve and view the desired report.

(3) The retrieved report will have all of the makes and models of aircraft previously entered. The AFM revision level and date of the latest revision is also listed. If the AEG determines that an AFM revision has special importance, the "priority" field will be changed from a "no" to a "yes" and the entire line will be depicted in a different color. The report may be printed by clicking on the "print" icon on the toolbar.

(4) Aircraft Manufacturer Operations (OPS) Bulletins. To see which OPS bulletins are applicable to a specific aircraft listed in the report, position the mouse pointer over the model number and click the left mouse button.

NOTE: The listed OPS bulletins are for the airplane model selected and will not include other models of that particular airplane.

(5) To return to the aircraft listing, click on the "return" button.

(6) After returning to the aircraft listing screen, two other options are available - "modify" or "more-reports."

(a) The "modify" function allows the present report to be modified in the event an operator adds or removes aircraft from its fleet.

(b) To remove aircraft, click on the "remove" box in the right column. A black check mark will appear in the box. When all aircraft to be removed have been checked, click the "continue" button. If no aircraft are being removed, click the "continue" button to add aircraft to the report.

NOTE: Clicking the "cancel" button returns the program to the "Main Page" and no changes are made to the report.

(c) If aircraft were removed, a "report updated" screen will appear. If desired additional aircraft may be added to the report at this time by following the add more aircraft procedure listed above.

NOTE: If aircraft were removed and no aircraft are to be added, click the "no" button and the program returns to the "Main Page" with changes saved.

E. Delete Reports: If a saved report is no longer needed, or if a currently used name is desired for a new report, the "delete report" function is used.

(1) From the "Main Page" click the "delete report" button. A "STORED AIRPLANE FLIGHT MANUAL REVISION STATUS REPORTS" page appears with all previously created and saved reports listed.

(2) Position the mouse over the report name to be deleted and click the left mouse button.

(3) When the "delete reports" screen appears, options for "delete" or "cancel" are provided. To delete the report click the "delete" button. The "cancel" button return the program to the "Main Page."

(4) After deleting a report the program returns to the "STORED AIRPLANE FLIGHT MANUAL REVISION STATUS REPORTS" page. Click on the FAA logo to return to the "Main Page."

3. EXITING THE AFM REVISION DATABASE PROGRAM. To exit the database program, click on the icon with a picture of a "house" and the Internet service is returned to its "home page."