AFS-600
Regulatory Support Division

DESIGNEE NEWSLETTER
for October 2008

A quarterly publication designed to serve the Examiner, Designee, and Instructor community.

IN THIS UPDATE

From the Desk of the Manager AFS-640 1
Dual Citizenship and Integrated Airman Certification and/or Rating Application (IACRA) 2
Flight Standards Information Management System (FSIMS) and the New FAA Order 8900.2 2
Function Code 32 and Class III Export 3
AFS-640 Course is Approved for Inspection Authorization Renewal 5
Quarterly Feature – One Question: How Will Change 3 of Order 8100.8C Affect Designees? 6
Questions and Answers Regarding ATP 8

FROM THE DESK OF THE MANAGER AFS-640

Here it's already October, summer is over, and the kids are back in school. We here at AFS-640 hope your summer was safe and eventful. We've been working hard this summer to get ready for some major changes on October 1, 2008. Two major changes are the introduction of testing at all of our seminars and our price has increased. While the testing is mandated by policy, the increase in price has occurred because the meeting rooms and other costs have increased. We will continue to try and provide our services as economically as possible without lowering our standards.

Ken Pannell transferred to Nashville, Tennessee in September. Ken has been a valuable asset on our Designated Pilot Examiner Team. We hope that the move will go well for him and his wife. I'm sure being closer to his grandchildren had a lot to do with requesting this transfer. We hired a new instructor to replace Ken. Darrel Woodworth comes to us from South Carolina. Darrel brings a wealth of experience. Please welcome him to our team when you see him at the next seminar you attend.

On our Manufacturing Standardization Team we are finally back up to full strength with the addition of Ron Wood. Ron comes to us out of Fort Worth, Texas and will add some much needed field experience to our team. Ron's first trip out will be to the Recurrent Manufacturing Seminar in Buffalo. If you are attending that seminar, take time to say hi to our newest instructor.

We are also instituting a branch-wide policy of requiring your advisor or principal inspector to be involved in any request for help from AFS-640. We don't want this to be a hurdle to our assisting the field; however, we need to have your local FAA official involved. This not only helps you, but also helps any other designee in the area that may be having the same problem. Please don't hesitate to get in touch with us, just include your local FAA official in the equation.

Jay Kitchens
Manager, Designee Standardization Branch, AFS-640

DUAL CITIZENSHIP AND INTEGRATED AIRMAN CERTIFICATION AND/OR RATING APPLICATION (IACRA)

Mr. Lanny Cline, Aviation Safety Inspector (Operations), located in the South Carolina FSDO, asked the following question: According to IACRA, DPEs will no longer be able to retrieve an application if the applicant is claiming dual citizenship. Does this mean that DPEs are not authorized to accept an application with dual citizenship? If so, what Notice, Order, etc., is this based upon?

The Airman Certification Branch (AFS-760) stated that Order 8900.1, Flight Standards Information Management System (FSIMS), Volume 5, Chapter 1, is in the process of being updated to give the Inspectors the proper procedures on the dual citizenship issue. This type of change (adding a second citizenship) must be done through the FSDO. DPEs cannot add the second citizenship since that change has to be made by the FSDO after review of the appropriate documents. IACRA is coming out with a new version (IACRA 6.1) which will have a pop-up telling the airman that if they want dual citizenship on their certificate, then they must visit their local FSDO to make application. The new IACRA version may already be available since we were told that it would be ready around the end of May 2008.

Previously under the old Order 8700.1, Aviation Inspector's Handbook, any changes to personal data, name, nationality, etc., had to be made through the FSDO by presenting to the FAA Inspector the appropriate documentation, then the Inspector would issue the FAA Form 8060-4, Temporary Airman Certificate, and complete the "Inspector's Report" section on the FAA Form 8710-1, Airman Certificate and/or Rating Application. (Reference Order 8700.1, Volume 2, Chapter 1, Section 10, 7.C.)

If you have any questions regarding a designee matter, please contact me: todd.e.burk@faa.gov.

Todd E. Burk, Aviation Safety Inspector
Designee Standardization Branch, AFS-640

FLIGHT STANDARDS INFORMATION MANAGEMENT SYSTEM (FSIMS) AND THE NEW FAA ORDER 8900.2

It has been said that with progress change is inevitable. Recently Flight Standards (AFS) undertook a project to combine all of the designee handbooks. September 30, 2008, was the effective date of the new FAA Order 8900.2, General Aviation Airmen Designee Handbook. This Order incorporates updated information, procedural and policy changes, and new guidance. It also cancels FAA Order 8610.12, Technical Personnel Examiner Handbook, dated July 14, 2008; FAA Order 8710.3E (and FAA Order 8710.3E CHG 1), Designated Pilot and Flight Engineer Examiner's Handbook, dated April 21, 2006; and FAA Order 8710.7, Sport Pilot Examiner's Handbook, dated October 14, 2004.

This Order will be utilized by each of our designee types so you will all see some changes in how we manage designees. These changes were mainly a streamlining of AFS policy to make the management of different designees the same when possible. In this Order you will find that the first five chapters are for every designee type. Chapter 6 covers Technical Personnel Examiners, and Chapter 7 covers

Designated Pilot Examiners (including Light Sport). Take time to read the sections that pertain to you, and feel free to contact us here in AFS-640 if you have any questions.

Due to the ever increasing importance of fiscal responsibility, the Government Printing Office (GPO) will not print these publications. Also, AFS-640 will no longer be able to provide designees with hard copies of these publications. The public now has a new portal to this information. FAA Orders and updates are available on the Flight Standards Information Management System http://fsims.faa.gov and can be downloaded in both .PDF and Microsoft Word format.

Todd E. Burk, Aviation Safety Inspector
Designee Standardization Branch, AFS-640

FUNCTION CODE 32 AND CLASS III EXPORT

(The Production & Airworthiness Division, AIR-200, has reviewed the following article for accuracy and has approved it for publication in the Designee Newsletter.)

We have received numerous calls regarding the new language in Function Code 32, especially with respect to export of Class III parts. Export of Class III parts is a new function for Flight Standards designees. Historically, Flight Standards designees have always been limited to export of Class I and Class II products. One of the misconceptions with the new function code is that some designees with Function Code 32 believe they now have the authority to issue Class III exports for any person. Let's review the function code as taken from Order 8100.8C, Designee Standardization Handbook, Chg. 1, chapter 14, paragraph 1407a(10).

Code 32—Issue recurrent export airworthiness approvals for Class II products that are manufactured in accordance with 14 CFR Part 21 and/or issue original/recurrent export airworthiness approvals for Class III products manufactured in accordance with 14 CFR Part 21.

NOTE: This authorization includes export airworthiness approvals for Class III products located at a non-PAH distributor operating under an exemption to § 21.323(b)(2).

To fully understand the function code, we need to understand the regulation referenced in the NOTE. The reference is to § 21.323(b (2). 14 CFR § 21.323, speaks to "Eligibility," and basically defines WHO is eligible to obtain export approvals for Class I, II, or III products. The ONLY person authorized to obtain Class III exports, by regulation, is a manufacturer. For the purposes of this regulation, a "manufacturer" is one who holds a production approval, which we identify as a Production Approval Holder (PAH). Production approvals include a Production Certificate (PC), an Approved Production Inspection System (APIS), a Technical Standard Order Authorization (TSOA), and a Parts Manufacturing Approval (PMA). Based on this knowledge, one can better understand HOW the "non-PAH distributor," operating under an exemption, is now eligible to obtain an export approval for Class III products. ANY non-PAH that has an FAA exemption to § 21.323(b)(2) could be authorized to obtain an export approval for Class III products, based on the language in the function code. However, ONLY ONE organization has applied for and received an exemption to § 21.323, and that organization is the Aviation Suppliers Association (ASA). ASA applied for an exemption, on behalf of its members, to the regulatory requirement that ONLY a manufacturer may obtain an export approval for a Class III product. FAA granted ASA exemption 8696, but with certain restrictions. Those restrictions mandate the following.

1. The facility requesting the Class III export must be an ASA member.

2. The ASA member requesting the Class III export must be listed as an ASA accredited distributor in the Voluntary Industry Distributor Accreditation Program data base. (See FAA AC 00.56.)

3. The ASA accredited distributor requesting the Class III export must have a copy of exemption 8696 on-hand at the facility.

These limitations have a huge impact on whether or not the designee can issue the Class III export approval. When the designee receives a call from a facility requesting an export, the exporter (the facility) may not know if the product to be exported is a Class II or Class III product. One of the first questions should be, "What products do you want to export"? If the answer places that part in the Class III category, then the three restrictions listed above need to be addressed. If a designee travels to a facility and discovers that some of the parts presented for export fall into the Class III category, then the restrictions listed above must be addressed prior to export of those products.

However, no designee is permitted to perform ANY function that is not identified on his/her Certificate of Authority (C of A) Letter. We have numerous designees that currently have Function Code 32 on their C of A letter. However, the authority to issue Class III export approvals only became available in February 2008, with the release of Chg. 1 to Order 8100.8C. You may have Function Code 32 on your C of A letter, but if your C of A letter does not have the Chg. 1 language, which speaks to Class III exports, you ARE NOT authorized to export a Class III product! Generally, the Regional Office is responsible for issuance of the C of A letters for each individual designee. The Regional Office does not automatically reissue C of A letters every time a new function code is released OR when the language in an existing function code is changed. You should inform the Regional Office, *through* your managing office, of your desire to have this new language added, or in the case of a new function code, your desire for expanded authority. If you already have Function Code 32, you are not permitted to use the new expanded language in the Order until your C of A letter is amended. You MUST be authorized, in writing, by your Regional or Managing office before exercising this expanded privilege. The Regional Office may not want every designee to have this expanded privilege. If the new language is not included on the designees C of A letter, that designee is not permitted to perform the function.

One other explanation is also necessary concerning the language used in this function code. The function code allows original/recurrent export of Class III products. Please take note that Flight Standards designees are ONLY permitted to issue recurrent export approvals for Class II products. However, for Class III products, both original AND recurrent approvals are permitted. Why would you think this is included? The reason recurrent exports for Class III products is permitted all falls back to the language in § 21.323 and the application of original or recurrent certification as found in Order 8130.2F, Airworthiness Certification of Aircraft and Related Products, paragraph 35. Remember, ONLY a manufacturer is permitted, by regulation, to obtain an export approval for Class III products. Exports that occur under the quality system umbrella of the PAH are considered an original certification. Once that product/part leaves the manufacturer's facility, any airworthiness approval that occurs would be a recurrent certification. In this case, these Class III product/parts have left the original manufacturer's quality system, and for a Flight Standards designee to be permitted to export those products/parts, they have to have recurrent Class III export authority. But what about the original export authority for Class III products/parts addressed in the language of the function code? By adding the original export authority for Class III products/parts, a designee with this authority in his/her C of A letter can be permitted to issue a Class III export approval at a PAH! But wait, before you run off to Boeing or Cessna and introduce yourself as their export Class III salvation, be advised that YOUR Managing Office MUST coordinate any original certification you may perform with our Manufacturing and Inspection District Office (MIDO) counterparts. This requirement comes from Order 8100.8C,

paragraph 1405(c). Be advised that it is highly unlikely that any MIDO office will grant permission for a DAR-T to visit one of their PAHs for the purpose of issuing a Class III export.

So, in summation, please review the short list below regarding export of Class III products/parts as authorized by the new expanded language in Function Code 32.

1. All designees expecting to export Class III products/parts must have the new Function Code 32 language in their C of A letter.

2. To export Class III products/parts, the designee must verify that the applicant is an ASA, and is listed in the Voluntary Industry Distributor Accreditation Program data base. (You can access this data base at: http://www.aviationsuppliers.org.)

3. The ASA-accredited distributor must have a copy of the FAA exemption at their facility.

Hopefully this article will clear up some of the misconceptions regarding the new function code language. If you have questions regarding this article, please contact AFS-640.

Brad Outlaw, Aviation Safety Inspector
Designee Standardization Branch, AFS-640

AFS-640 COURSE IS APPROVED FOR INSPECTION AUTHORIZATION RENEWAL

AFS-640 would like to remind Designees and Federal Aviation Administration (FAA) Aviation Safety Inspectors (ASIs) that the Technical Personnel Examiner (TPE) Seminars (Initial and Recurrent) have been approved for Inspection Authorization (IA) renewals since August 2006.

In addition, Maintenance and Manufacturing Seminars (Initial and Recurrent) have been approved for IA renewal for several years. Designees and ASIs will be able to use their Seminar Certificates as a basis for renewal of their IA.

There have been cases where the Course number was inadvertently omitted from the certificate. If this happens to you, please contact AFS-640 for a new certificate.

We hope that Designees and ASIs will find this service to be beneficial to their needs as Professional Aviation Technicians. Direct any question you have regarding this article to Roger D. Webb (405) 954-8053/4220.

Roger D. Webb
Designee Standardization Branch, AFS-640

QUARTERLY FEATURE – ONE QUESTION: HOW WILL CHANGE 3 OF ORDER 8100.8C AFFECT DESIGNEES?

On October 1, 2008, Change 3 of Order 8100.8C, Designee Standardization Handbook, will become effective. Therefore, AFS-640 will revise our training methods, content, and assessments.

Change 3 will affect designees that attend AFS-640's Initial and Recurrent Manufacturing Seminars. As a result, you will notice the training seminars are divided.

You may enroll in an applicable training seminar by visiting our Registration System Home Page at: https://av-info.faa.gov/DsgReg/default.aspx. If you have a question regarding which training seminar to attend, please contact your advisor.

For your assistance, we have attached the following table showing the training seminars “before the changes” and “after the changes.”

INITIAL SEMINARS		RECURRENT SEMINARS	
Before The Changes	After The Changes	Before The Changes	After The Changes
MANUFACTURING AND MAINTENANCE STANDARDIZATION SEMINAR ONLINE Part 1: Web-Based Seminar	Part 1 Online: Web-Based Seminar \ (1) PARTS, PROPELLERS, AND ENGINES SEMINAR	MANUFACTURING Recurrent Seminars	Manufacturing Recurrent Seminars (1) PARTS, PROPELLERS, AND ENGINES RECURRENT SEMINAR
	Part 1 Online: Web-Based Seminar (2) AIRCRAFT CERTIFICATION SEMINAR		Manufacturing Recurrent Seminars (2) AIRCRAFT CERTIFICATION RECURRENT SEMINAR
	Part 1 Online: Web-Based Seminar (3) DMIR CODE 53 SEMINAR		
MANUFACTURING AND MAINTENANCE STANDARDIZATION SEMINAR Part 2: Classroom Seminar	Part 2: Classroom Seminar (1) PARTS, PROPELLERS, AND ENGINES SEMINAR		DMIR Code 53 Recurrent Seminars (Web-Based Seminar)
	Part 2: Classroom Seminar (2) AIRCRAFT CERTIFICATION SEMINAR	MAINTENANCE RECURRENT SEMINARS	MAINTENANCE RECURRENT SEMINARS

Neal Rice, Aviation Safety Inspector
Designee Standardization Branch, AFS-640

QUESTIONS AND ANSWERS REGARDING ATP

(The following questions were submitted to the Airman Testing Standards Branch, AFS-630, by the public. AFS-640 has printed the questions and answers "as they were received.")

"**Questions from the public:**

Upon reviewing FAA-S-8081-5F which goes into effect today, I find a new note regarding Nonprecision Approaches (Area of Operation V., Task D.) The note suggests that "One approach should be flown with reference to backup or 'fail down' instrumentation or navigation display depending on the aircraft's avionics configuration." Can you provide any further clarification as to the general intent of this suggestion or how it might be applied during certification events in the Axxxx Axxx? (I am a TCE on the Xxxx). It might help to know more about the meaning of 'fail down' instrumentation.

The New ATP PTS for 2008 brings up some questions: It seems that the requirement is not to have instrument approaches flown with references to standby instruments. Here are the quotes I am referencing Section 2, Task V.C.: "If the aircraft is equipped with advanced flight instrument displays, the raw data approach should be flown by reference to the backup instrumentation as much as is possible with the airplane's configuration."

The question is: Is this required or not?

Also (Section 2, Task V.D):

NOTE: One approach should be flown with reference to backup or "fail down" instrumentation or navigation display depending on the aircraft's avionics configuration.

Questions:

1. What does "Fail Down" mean?

2. Is there a difference between backup and "fail down" instrumentation?

Also (Section 2, Task V.F.1.):

Exhibits satisfactory knowledge of missed approach procedures associated with standard instrument approaches to include reference to standby (backup or fail down) instruments.

Question: Does this mean the applicant has to complete a missed approach on standby instruments?

Answers:

The intent is for an approach to be flown with standby instrumentation. The problem with this ATP PTS document is that it is a general document and is to be used by the entire aviation community at large.

Depending on the aircraft and instrumentation installed, the examiner will have to use their discretion as to what is available in instances of failures.

Some aircraft have the "faildown" mode or "standby" function of placing all PFD information on the MFD, while others do not. Some aircraft have standby VOR CDIs, while others have MFDs on completely separate systems.

Some manufacturers term the old mechanical flight instruments as "standby", while others term them as the "Fail down" mode of instrumentation. Others may refer to the instruments as "backup".

So, in summary, it is intended for the pilots (crew) to be able to safely fly the aircraft solely by reference to only the "backup/standby/fail down" instrumentation as would be available in the event of a failure or fault.

We have records of total electrical failures in aircraft ranging from Cessna 172s, through Falcon 20s and at least two Boeing 737s.

Total electrical failure can happen and has happened. The only way to ensure safety of the flying public is to ensure fully trained pilots and crews are in control.

Therefore, we feel that completion of instrument approaches using only "backup/standby/fail down" instrumentation is prudent for the safety of the public and is required. The extent of the failure must be determined by the inspector or designated examiner trained and experienced in that particular aircraft with that equipment installed.

Answer:

The conditions depend on the installed equipment, but the intent is for the pilot/crew to perform the approaches with the minimum of equipment operational.

In other words, the pilot would need to show satisfactory performance in the instrument phases using only the backup/standby/faildown instruments. If there is an independent navigation CDI, then the PFD/MFD could be completely dark.

If the PFD/MFD are the only displays for the navigation, then the gyros would be failed requiring the pilot to use the standby "peanut" gyro and course information from the MFD. The inspector or designee must know the aircraft and apply the worst case and evaluate that situation. After all, there would not be much use to having all of the standby instrumentation if the pilots/crew were never trained to qualify on those instruments.

"Raw data" was the term used with attitude gyros and mechanical HSIs with a failed flight director. However, with the integration of advanced electronic avionics displays, we have a new set of failure modes. Now "raw data" is really raw, just what is left in event of major malfunctions.

Now, if the pilot loses the PFD, they might be able to use the MFD. Some aircraft have that utility. That is one skill set that the pilots would have to learn.

However, since the system is electronic, the entire system depends on the electrical system and it can fail (and has), and thereby imposes another set of demands on the pilots/crew. They must acquire this skill set as well.

Therefore, the advanced instrumentation has increased the number of skill sets that the pilots and crews must master satisfactorily in order to ensure the safety of the flying public. The crews must learn and be proficient in the normal operations of the installed equipment. With a J-3 Cub, that is quite simple and easy. With a full glass cockpit, that task became much more difficult. Yet, the crew must be trained to cope with foreseeable failures. The more you have, the more that can break.

Specifically, if the MFD can substitute for the PFD, then the pilot should be trained enough to satisfactorily cope with that event. If a total electrical failure can disrupt both displays, the pilot should be trained to use just the conventional standby instrument to safely terminate the flight in a satisfactory manner. In the instances of total electrical failure cited in yesterday's message, a single point of failure was always found, even in the B-737.

Generally, if Man makes it, it can fail.

So, the inspectors and designees trained and experienced in the aircraft should be evaluating the very worst case scenarios and a portion of the test should include those conditions as stated in the PTS. The evaluator should be ensuring the complete competency of the pilots/crew. Most anyone can fly on a good day in good weather with a good aircraft.

For examples, one approach would be to evaluate the use of all equipment installed.

Then another approach with a PFD failure using the MFD in place of a failed PFD. The next approach may be made with only the very basic standby instrumentation remaining after a tremendous lightning strike. Then maybe the approach with one engine inoperative flying an ILS.

The inspector/examiner trained and experienced on the specific aircraft must make the decision as to the failure modes and evaluation sequence, but the intent is to check worst case conditions to ensure the pilot/crew can cope no matter how the equipment functions or malfunctions.

(Comment: This change was prompted by a suggestion from an aircraft manufacturer. This was not an FAA suggestion although we did agree that it was a safety improvement.)

Feel free to contact us any time with comments, suggestions, remarks, and questions concerning any of our publications at: AFS630comments@faa.gov."

Danny Goss
ATP Certification Manager
Airman Testing Standards Branch, AFS-630