



Creation and Implementation of a new Primary Non-Commercial Category under 14 CFR Part 21

**A Recommendation by the GAMA /FAA Small
Aircraft Aviation Rulemaking Committee**

Background

The joint GAMA / FAA Small Aircraft Aviation Rulemaking Making Committee (ARC) has been tasked with doubling aircraft safety while at the same time reducing certification costs by half.

Currently, there are over 190,000 General Aviation aircraft registered in the United States - however corresponding production of new replacement aircraft is only approximately 1000 units a year when averaged over the last several decades. (*General Aviation Manufacturers Association Statistical Databook & Industry Outlook pages 30 and 24 respectively- see Attachment D*) **Unfortunately, at this pace, it will take almost 200 years to replace the existing General Aviation fleet.**

Consequently, even with the most optimistic rates of production, it may be decades before the improvements pioneered by the ARC for new aircraft design will yield any measurable safety improvements or cost reductions for the General Aviation Fleet as a whole. Therefore, any effective Safety / Cost solution must address both New and Existing Aircraft. The only way of realizing the safety and cost goals is by leveraging the concepts developed by the ARC for use in new aircraft certification in a way that would have an immediately felt positive safety effect on the existing General Aviation fleet. The Primary Non-Commercial recommendation resulted from this necessity.

Recommendation: Create a Primary Non-Commercial Category under 14 CFR Part 21

The Primary Non-Commercial Category is intended for the private owner to operate his or her aircraft in a substantially less burdensome and costly manner by reducing the level of compliance to FAA maintenance and alteration requirements to a level more appropriate for a privately owned vehicle.

Owners of standard category aircraft that are more than twenty years old could elect to redesignate their aircraft as “Non Commercial” use. This would enable owners to maintain their aircraft in a manner similar to a Light Sport or amateur built aircraft. This would include owner maintenance privileges (once a FAA accepted class is passed) and use of non PMA / TSO parts. Aircraft would be subject to a yearly “condition inspection” by an A&P mechanic which certifies the aircraft is in a condition for safe operation, identical to the requirements for Amateur Built Experimental Aircraft.

While some may argue anecdotally that the creation of a Non Commercial category with its associated privileges will detrimentally affect safety, factual data indicates otherwise. First, this class follows International Precedent by leveraging the concepts of the Canadian Owner Maintenance Category, which has a proven safety record over the last decade (see attachment C). Secondly, this concept uses the maintenance training principles of the highly successful LSA program which has a proven safety record. Incorporation of this new category will offer the FAA a rare opportunity for implementation of sound Safety Continuum principles paired with international harmonization.

In addition, by allowing a practical and workable path to return Non Commercial aircraft to Standard Category through dual airworthiness certificates, owners will have a Large Financial Incentive to keep their aircraft near to type design to avoid devaluing their aircraft. This is a significant Safety Advantage over the Canadian System where it is nearly impossible to return to Standard Category – therefore affording no incentive for owners to keep aircraft compliant to safety proven type design



Finally, the principles set forth in the GAMA/ FAA “Primary Non Commercial Category” Recommendation exclusively leverage existing US regulations with proven safety records. The recommendation simply takes successful existing regulatory practices and combines them into the new Primary Non Commercial Category. For example, Maintenance Training and Certification comes from LSA, Airworthiness Certification comes from dual certificated Standard / Restricted Category aircraft and Non Commercial use from Experimental Aircraft. There is nothing new or novel proposed... except for the unlimited potential for safety and cost improvements that would be available for users of the Primary Non Commercial class.



Attachment A

Proposed Draft of Regulatory structure required to implement the Primary Non-Commercial Category

1. New Regulation 21.24 Establishing the Primary Non-Commercial Category
2. Revised Regulation 21.184 Issue of airworthiness certificates for primary category aircraft and primary (non-commercial) aircraft
3. New Regulation 91.328 Operating Limitations for Primary Non-Commercial Aircraft
4. Revised Regulation 45.22 for Markings on Primary Non-Commercial Aircraft
5. New Regulation 65.108 Establishing Primary Non-Commercial Repairmen Certificates

Code of Federal Regulations

Part 21 CERTIFICATION PROCEDURES FOR PRODUCTS, ARTICLES, AND PARTS

Subpart B--Type Certificates

Revised Regulation

Sec. 21.24

Issuance of type certificate: Primary category aircraft and Primary Non-Commercial Category

(a) The applicant is entitled to a type certificate for an aircraft in the primary category if--

(1) The aircraft--

(i) Is unpowered; is an airplane powered by a single, naturally aspirated engine with a 61-knot or less V_{so} stall speed as defined in Sec. 23.49; or is a rotorcraft with a 6-pound per square foot main rotor disc loading limitation, under sea level standard day conditions;

[(ii) Weighs not more than 2,700 pounds; or, for seaplanes, not more than 3,375 pounds;]

(iii) Has a maximum seating capacity of not more than four persons, including the pilot; and

(iv) Has an unpressurized cabin.

(2) The applicant has submitted--

(i) Except as provided by paragraph (c), a statement, in a form and manner acceptable to the [FAA], certifying that: the applicant has completed the engineering analysis necessary to demonstrate compliance with the applicable airworthiness requirements; the applicant has conducted appropriate flight, structural, propulsion, and systems tests necessary to show that the aircraft, its components, and its equipment are reliable and function properly; the type design complies with the airworthiness standards and noise requirements established for the aircraft under Sec. 21.17(f); and no feature or characteristic makes it unsafe for its intended use;

(ii) The flight manual required by Sec. 21.5(b), including any information required to be furnished by the applicable airworthiness standards;

(iii) Instructions for continued airworthiness in accordance with Sec. 21.50(b); and

(iv) A report that: summarizes how compliance with each provision of the type certification basis was determined; lists the specific documents in which the type certification data information is provided; lists all necessary drawings and documents used to define the type design; and lists all the engineering reports on tests and computations that the applicant must retain and make available under Sec. 21.49 to substantiate compliance with the applicable airworthiness standards.

(3) The [FAA] finds that--

(i) The aircraft complies with those applicable airworthiness requirements approved under Sec. 21.17(f) of this part; and

(ii) The aircraft has no feature or characteristic that makes it unsafe for its intended use.

(b) An applicant may include a special inspection and preventive maintenance program as part of the aircraft's type design or supplemental type design.

(c) For aircraft manufactured outside of the United States in a country with which the United States has a bilateral airworthiness agreement for the acceptance of these aircraft, and from which the aircraft is to be imported into the United States--

(1) The statement required by paragraph (a)(2)(i) of this section must be made by the civil airworthiness authority of the exporting country; and

(2) The required manuals, placards, listings, instrument markings, and documents required by paragraphs (a) and (b) of this section must be submitted in English.

(c) Primary Non-Commercial Category

- (a) The Primary Non-Commercial Category consists of aircraft which hold a Type Certificate in another Category defined by 14 CFR 23.3. Aircraft owners may elect to make application for a Primary Non-Commercial category airworthiness certificate subject to the privileges and limitations outlined by this part. Primary Non-Commercial forms a separate group, therefore Sections (a) and (b) of this subpart do not apply to section (c) aircraft.
- (b) The Primary Non-Commercial Category does not constitute type design or a certification basis.
 - a. The type design of aircraft in the Primary Non-Commercial Category remains as annotated in the aircrafts' original type certificated data sheet.
 - b. Aircraft operated under a Primary Category Non-Commercial Airworthiness Certificate may deviate from type design provided that the aircraft remains in condition for safe operation.
 - c. While operating under a Primary Category Non-Commercial Airworthiness Certificate aircraft are not considered type certificated aircraft.
 - d. As the Primary Non-Commercial Category is not considered a certification basis –
 - (i) A Supplemental Type Certificate is not required for a Primary Non-Commercial Category Airworthiness Certificate
 - (ii) Primary Non-Commercial Category Airworthiness Certificates are issued per section 21.185(e) of this part.
- (c) Aircraft certificated in the Primary Non-Commercial category are dual certificated in both the original Type Certificated Category and the Primary Non Commercial category. However, the privileges of the Standard Category Airworthiness Certificate may not be utilized unless the aircraft meets the type design and maintenance requirements required for that certificate.

(d) Maintenance Requirements

- (1) Aircraft operated under a Primary Non-Commercial Category Airworthiness Certificate require a condition inspection, performed at intervals not to exceed 12 calendar months, by a certified Airframe and Powerplant Mechanic, which incorporates the scope and detail of 14 CFR 43 Appendix D.
- (2) Aircraft operated under a Primary Non-Commercial Category Airworthiness Certificate require the following logbook entries in the format specified in 14 CFR 43.9. Entries made under this subsection must be permanently retained as part of the aircraft maintenance records:
 - a) The completion of the condition inspection required by (d) (1)
Condition inspections must be recorded in the aircraft logbook and maintenance records showing the following, or a similarly worded, statement: **“I certify that this aircraft has been inspected on [insert date] in accordance with the scope**

and detail of 14 CFR part 43, appendix D, and was found to be in a condition for safe operation.”

- b) The completion of the ATC Transponder inspection required by 14 CFR 91.215 and the ELT inspection required by 14 CFR 91.207.
 - c) Aircraft operated under a Primary Non-Commercial Category Airworthiness Certificate require the compliance status of all Airworthiness Directives applicable to the aircraft when operated under its standard category Airworthiness Certificate be logged within the time frame for compliance with the Airworthiness Directive. The aircraft owner must sign the logbook entry indicating their awareness of the compliance status.
 - d) Aircraft operated under a Primary Non-Commercial Category Airworthiness Certificate require a logbook entry at the time of installation of all parts and alterations which would not be eligible for installation on a Standard Category Aircraft.
 - e) Part produced and installed on an Aircraft operated under a Primary Non-Commercial Category Airworthiness Certificate need not meet the requirements of 14 CFR 21.9 as Non Commercial category aircraft are not considered to be FAA certified.
- (3) Notwithstanding the above, all aircraft maintenance must be performed by an individual properly certificated for the activity under 14 CFR 43 or by the aircraft owner if he/ she has completed an FAA Accepted Training for an Primary Non-Commercial Category repairman's certificate.

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Part 21 CERTIFICATION PROCEDURES FOR PRODUCTS, ARTICLES, AND PARTS	
Subpart H--Airworthiness Certificates	Revised Regulation

Sec. 21.184

Issue of special airworthiness certificates for primary category aircraft and primary non-commercial category aircraft

(a) *New primary category aircraft manufactured under a production certificate.* An applicant for an original, special airworthiness certificate-primary category for a new aircraft that meets the criteria of Sec. 21.24(a)(1), manufactured under a production certificate, including aircraft assembled by another person from a kit provided by the holder of the production certificate and under the supervision and quality control of that holder, is entitled to a special airworthiness certificate without further showing, except that the [FAA] may inspect the aircraft to determine conformity to the type design and condition for safe operation.

(b) *Imported aircraft.* An applicant for a special airworthiness certificate-primary category for an imported aircraft type certificated under Sec. 21.29 is entitled to a special airworthiness certificate if the civil airworthiness authority of the country in which the aircraft was manufactured certifies, and the [FAA] finds after inspection, that the aircraft conforms to an approved type design that meets the criteria of Sec. 21.24(a)(1) and is in a condition for safe operation.

(c) *Aircraft having a current standard airworthiness certificate.* An applicant for a special airworthiness certificate-primary category, for an aircraft having a current standard airworthiness certificate that meets the criteria of Sec. 21.24(a)(1), may obtain the primary category certificate in exchange for its standard airworthiness certificate through the supplemental type certification process. For the purposes of this paragraph, a current standard airworthiness certificate means that the aircraft conforms to its approved normal, utility, or acrobatic type design, complies with all applicable airworthiness directives, has been inspected and found airworthy within the last 12 calendar months in accordance with Sec. 91.409(a)(1) of this chapter, and is found to be in a condition for safe operation by the [FAA].

(d) *Other aircraft.* An applicant for a special airworthiness certificate-primary category for an aircraft that meets the criteria of Sec. 21.24(a)(1), and is not covered by paragraph (a), (b), or (c) of this section, is entitled to a special airworthiness certificate if--

(1) The applicant presents evidence to the [FAA] that the aircraft conforms to an approved primary, normal, utility, or acrobatic type design, including compliance with all applicable airworthiness directives;

(2) The aircraft has been inspected and found airworthy within the past 12 calendar months in accordance with Sec. 91.409(a)(1) of this chapter and;

(3) The aircraft is found by the [FAA] to conform to an approved type design and to be in a condition for safe operation.

(e) *Multiple-category airworthiness certificates* in the primary category and any other category will not be issued; a primary category aircraft may hold only one airworthiness certificate.]

(f) Issuance of an airworthiness certificate for a Primary Non-Commercial category aircraft.

(1) Purpose. The FAA issues a Primary Non-Commercial airworthiness certificate to operate a Primary Non-Commercial aircraft

(2) An owner of an aircraft registered within the United States may apply and is entitled to for an airworthiness certificate for a Primary Non-Commercial aircraft provided:

1. More than twenty years have elapsed since the aircraft's date of manufacture.
2. The aircraft is fixed wing and either unpowered or powered by reciprocating engine(s).
3. The aircraft has a current annual inspection (14 CFR 91.409) at the time of application for original issuance.
4. The aircraft must be in condition for safe operation (14 CFR 91.328) for reissuance.
5. Aircraft which holds or has held an Airworthiness Certificate in another Category defined by 14 CFR 23.3

(3) Duration

1. Airworthiness Certificates issued to Primary Non-Commercial Aircraft are valid as long as applicant maintains ownership of the aircraft.
2. Airworthiness Certificates issued to Primary Non-Commercial Aircraft are not transferable. Upon transfer of ownership the current owner may apply for reissuance of the Primary Non-Commercial Airworthiness Certificate.

(4) Multiple Airworthiness Certifications

1. Issuance of a Primary Non-Commercial Airworthiness Certificate does not invalidate or require the surrender of the aircraft's original category airworthiness certificate. Aircraft so certificated hold multiple airworthiness certificates.
2. The aircraft may be operated under its original standard category airworthiness certificate provided it meets its type design and has a current inspection as required under 14 CFR 91.409(a), (b) or (d).
3. If the aircraft does not meet its type design requirements, but is in condition for safe operation, it may be operated under its Primary Non-Commercial Airworthiness Certificate provided the aircraft has a current inspection as required under subsection (d)(1) of this part.

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Part 91 GENERAL OPERATING AND FLIGHT RULES	
Subpart D--Special Flight Operations	New Regulation

Sec. 91.328

Aircraft having a special airworthiness certificate in the Primary Non Commercial category: Operating limitations.

- (1) Primary Non Commercial Category Aircraft are required to observe the FAA Approved Aircraft Flight Manual basic flight operating limitations and or required placard limitations established for the Standard Category aircraft unless otherwise FAA Approved via a Supplemental Type Certificate, Field Approval or other means acceptable to the administrator.
- (2) No person may operate Non Commercial aircraft for carrying persons for compensation or hire.
- (3) The pilot in command of a Primary Non Commercial aircraft must advise each passenger of the Primary Non Commercial nature of the aircraft, and explain that it does not meet the certification requirements of a standard certificated aircraft.
- (4) This aircraft must contain the placards or markings, as required by 14 CFR § 91.9.
- (5) The aircraft must display, near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high, the words "Primary Non Commercial" or display markings as required in 14 CFR 45.22(b).
- (6) The pilot in command of a Primary Non Commercial aircraft must hold a pilot certificate or an authorized instructor's logbook endorsement. The pilot in command also must meet the requirements of 14 CFR § 61.31(e), (f), (g), (h), (i), and (j), as appropriate. If required, the pilot in command also must hold a type rating in accordance with 14 CFR part 61, or an LOA issued by an FAA Flight Standards Operations Inspector.
- (6) When filing Instrument Flight Rules (IFR), the Primary Non Commercial category of this aircraft must be listed in the remarks section of the flight plan.
- (7) Non Commercial (AB) Aircraft require a Phase I flight test program as detailed in 14 CFR 91.319 (b) and 14 CFR 91.305.
- (8) Non Commercial (TC) Aircraft that have been altered an extent that would be considered a Major Change to Type Design as defined by 14 CFR 21.93 require a Phase I flight test program as detailed in 14 CFR 91.319 (b) and 14 CFR 91.305.

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Part 45 IDENTIFICATION AND REGISTRATION MARKING	
Subpart C--Nationality and Registration Marks	Revised Regulation

Sec. 45.22

Exhibition, antique, and other aircraft: Special rules.

(a) When display of aircraft nationality and registration marks in accordance with Secs. 45.21 and 45.23 through 45.33 would be inconsistent with exhibition of that aircraft, a U.S.-registered aircraft may be operated without displaying those marks anywhere on the aircraft if:

(1) It is operated for the purpose of exhibition, including a motion picture or television production, or an airshow;

(2) Except for practice and test flights necessary for exhibition purposes, it is operated only at the location of the exhibition, between the exhibition locations, and between those locations and the base of operations of the aircraft; and

(3) For each flight in the United States:

(i) It is operated with the prior approval of the Flight Standards District Office, in the case of a flight within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for the takeoff airport, or within 4.4 nautical miles of that airport if it is within Class G airspace; or

(ii) It is operated under a flight plan filed under either Sec. 91.153 or Sec. 91.169 of this chapter describing the marks it displays, in the case of any other flight.

(b) A small U.S.-registered aircraft built at least 30 years ago or a U.S.-registered aircraft for which an experimental certificate has been issued under Sec. 21.191(d) or 21.191(g) for operation as an exhibition aircraft, as an amateur-built aircraft and which has the same external configuration as an aircraft built at least 20 years ago or a Primary Non-Commercial Category aircraft may be operated without displaying marks in accordance with Secs. 45.21 and 45.23 through 45.33 if:

(1) It displays in accordance with Sec. 45.21(c) marks at least 2 inches high on each side of the fuselage or vertical tail surface consisting of the Roman capital letter "N" followed by:

(i) The U.S. registration number of the aircraft; or

(ii) The symbol appropriate to the airworthiness certificate of the aircraft ("C", standard; "R", Primary; "L", limited; or "X", experimental or "C" for Primary Non-Commercial followed by the U.S. registration number of the aircraft; and

(2) It displays no other mark that begins with the letter "N" anywhere on the aircraft, unless it is the same mark that is displayed under paragraph (b)(1) of this section.

(c) No person may operate an aircraft under paragraph (a) or (b) of this section--

(1) In an ADIZ or DEWIZ described in Part 99 of this chapter unless it temporarily bears marks in accordance with Secs. 45.21 and 45.23 through 45.33;

(2) In a foreign country unless that country consents to that operation; or

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Part 65 CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS	
Subpart E -- Repairmen	New Regulation

Sec. 65.108

Repairman certificate (Primary Non-Commercial): Eligibility, privileges, and limits.

(a) To be eligible for a Antique Non-Commercial Vintage repairman certificate you must meet the following;

- a. Be at least 18 years old
- b. Be able to read, speak, write and understand the English language.
- c. Demonstrate the requisite skill to determine whether a Antique Non-Commercial Vintage aircraft is in condition for safe operation
- d. Be a Citizen of the United States or be a citizen of a foreign country that has been lawfully admitted for permanent residence to the United States
- e. Complete a 16 hour training course acceptable to the FAA on inspecting Antique Non-Commercial Vintage

(b) The holder of a repairman certificate (Primary Non-Commercial) may exercise it's privileges on any Antique Non-Commercial Vintage aircraft that is owned by the holder.

(c) Privileges:

(1) Approve and return to service an aircraft that has been issued a special airworthiness certificate in the Primary Non-Commercial category under §21.196 of this chapter, or any part thereof, after performing or inspecting maintenance.

(d) Limitations

(1) Holders of a repairman certificate (Primary Non-Commercial) are not permitted to perform the annual condition inspection on an Primary Non-Commercial aircraft required by 14 CFR 21.196(e)

Attachment B

Proposed Draft Orders required to implement the Primary Non-Commercial Category

1. Revised FAA Order 8130.2 Airworthiness Inspector's Handbook
2. New Order 800-ANC-ARC Defining Required training for Primary Non Commercial Repairman Courses and Evaluation

National Policy**Section 2. Primary Non-Commercial Airworthiness Certification**

4005. General. The procedures in this section provide guidance for the issuance of FAA Form 8130-7 for aircraft type certificated in the primary non-commercial category in accordance with 14 CFR §21.24 and 21.184.

a. An aircraft must be currently or have previously been type certificated under 14 CFR § 23.3 before a Primary non commercial category airworthiness certificate can be issued.

b. Under the provisions of 14 CFR § 21.24, an applicant for an airworthiness certificate in the Primary non-commercial category is entitled to the certificate if compliance is shown with the requirements of 14 CFR 21.24 and 21.184.

4006. Certification Procedures. The FAA representative should follow the appropriate procedures outlined in paragraph 4002 of this order.

4007. Eligibility.

a. The following aircraft are eligible for a special airworthiness certificate, in the Primary category, are as follows:

6. Aircraft where more than twenty years have elapsed since the aircraft's date of manufacture.
7. Aircraft that are fixed wing
8. Aircraft that are either unpowered (glider) or powered by reciprocating engine(s).
9. The aircraft must be airworthy at the time of application for original issuance or in condition for safe operation for reissuance.
10. The aircraft must hold or has held an Airworthiness Certificate in another Category defined by 14 CFR 23.3

4009. Statement of Conformity. As the Primary Non-Commercial Category does not define a type design, no statement of conformity to this category is required. For initial issuance, the last properly completed annual inspection per 14 CFR 91.409 is considered sufficient evidence of conformity to type design. For reissuance, the last properly completed annual condition inspection per 14 CFR 21.24 is consider sufficient.

4010. Operating Limitations. All aircraft type certificated in the Primary non-commercial category must be operated in compliance with the limitations prescribed in 14 CFR § 91.328.

4012. Airworthiness Certificate. When an application is made for a Primary non-commercial category airworthiness certificate "Primary Non-Commercial" will be entered in block A of FAA Form 8130-7. Carriage of people for compensation or hire is prohibited by 14 CFR § 91.328 for any Primary non-commercial category operation. FAA Form 8130-7 must have the following words entered in block A Primary Non-Commercial ; SEE ATTACHED LIMITATIONS."

4013. Display of Marks (Primary). The FAA must determine that the aircraft displays nationality and registration marks in accordance with 14 CFR § 45.21, 45.22 and 91.328.

4014. Duration of Primary Non-Commercial Airworthiness Certificates

a. Airworthiness Certificates issued to Primary Non-Commercial Aircraft are valid as long as applicant maintains ownership of the aircraft.

b. Airworthiness Certificates issued to Primary Non-Commercial Aircraft are not transferable. Upon transfer of ownership the current owner may apply for reissuance of the Primary Non-Commercial Airworthiness Certificate.

4015. Multiple Airworthiness Certificates

4016. General. Under the provisions of 14 CFR § 21.24, an applicant for an airworthiness certificate in the Primary non-commercial category is entitled to the certificate if compliance is shown with the requirements of 14 CFR 21.24 and 21.184. This issuance of a Primary Non-Commercial Airworthiness Certificate does not invalidate or require the surrender of the aircrafts' original category airworthiness certificate, thus most Primary Non-Commercial category aircraft will be hold dual airworthiness certificates in both its' original category and the Primary non-commercial category.

a. If the aircraft does not currently hold a Airworthiness Certificate for a category listed in 14 CFR 23.3, but has previously held such a certificate, the aircraft is eligible to operate under a Primary Non-Commercial Airworthiness Certificate provided that it is in condition for safe operation as described in paragraph 4009.

b. The aircraft may be operated under it's original standard category airworthiness certificate provided it meets it type design and has a current inspection as required under 14 CFR 91.409(a), (b) or (d). Properly documented and completed inspections as previously noted are the only evidence required for conformance to type design and constitute the authorization for the aircraft to operate it's original standard airworthiness certificate.

c. If the aircraft does not meet it's type design requirements, but is in condition for safe operation, it may be operated under its' Primary Non-Commercial Airworthiness Certificate provided the aircraft has a current inspection as required under subsection (d)(1) of this part.

4017. Inadequate or Fraudulent Maintenance Logbook Entries while Operated in the Non-Commercial Category. Proper Maintenance record keeping as defined in 14 CFR 21.24(d) and 14 CFR 43.9 is essential for the safe reconversion of a Primary Non-Commercial to standard category. In cases where there has been either Inadequate or Fraudulent Maintenance Logbook Entries the aircrafts standard category airworthiness certificate should be revoked.

**SUBJ: PROCEDURES TO ACCEPT INDUSTRY-DEVELOPED TRAINING FOR PRIMARY
NON-COMMERCIAL CATEGORY REPAIRMEN**

1. PURPOSE. This order assigns the Small Aircraft Directorate (SAD) and Aircraft Maintenance Division, AFS-300, jointly as the responsible offices to accept, maintain, and monitor the industry-developed training for Primary Non Commercial Category repairmen. It also provides guidance to SAD / AFS-300 for accepting industry-developed training for Antique Non Commercial Vintage repairmen maintenance rating.

2. DISTRIBUTION. This order is distributed to the director level in Washington headquarters and the centers; to all regional administrators; to branch level in the Flight Standards Service and the Aircraft Certification Service; to branch level in the regional Flight Standards Divisions; and to all Flight Standards field offices.

3. BACKGROUND. The Flight Standards Service director, AFS-1, has assigned the Small Aircraft Directorate (SAD) and Aircraft Maintenance Division, AFS-300, jointly the responsibility for Primary Non Commercial Category repairman programs. This includes accepting and monitoring required industry-provided training for Primary Non Commercial Category repairman.

a. 14 CFR 21.26 establishes certificates for operating Primary Non Commercial Category aircraft. For the purpose of this order, the following definitions will apply:

(1) Primary Non Commercial Category aircraft. These types of aircraft will be identified as ANV for the purpose of this order.

b. 14 CFR 65.108 establishes a new Primary Non Commercial Category certificate. The specific training requirements for these ratings are as follows:

(1) An ANV repairman certificate is issued to an individual upon successfully completing an FAA-accepted training course of at least 16 hours in length. This rating will allow the repairman to perform all required maintenance on an ANV aircraft owned by him or her - It however DOES NOT allow the holder to conduct the required annual condition inspection specified by 14 CFR 91.409.

4. DISCUSSION. This order contains the policy to be used jointly by the Small Aircraft Directorate (SAD) and Aircraft Maintenance Division, AFS-300 for the acceptance and monitoring of industry-developed training for the Antique Non-Commercial Vintage repairman. Circumstances not covered by this order should be referred to AFS-300 for policy determinations.

5. PRIMARY NON COMMERCIAL OVERVIEW FOR REPAIRMAN RATING TRAINING COURSE. For an applicant to obtain an Antique Non-Commercial Vintage repairman certificate requires a minimum of 16 hours of training. The goal of the 16-hour course is to take an individual with zero knowledge and train that individual to maintain an ANV aircraft to a level of proficiency comparable to a level 3 in 14 CFR part 147 appendix A. Level 3 requirement means that the repairman can make a decision that an aircraft is in a condition for safe operation without additional technical assistance. To ensure a level 3 standard of training, the 16-hour course will be limited to 16 students per instructor for lecture and 8 students per practical project.

a. The Repairman (ANV Aircraft) Course. This course will contain at least six elements:

(1) Regulations and other guidance applicable to ANV aircraft, review of operating limitations, annual condition inspection record entry, a review of FAA Airworthiness Directives (AD) and manufacturer's safety directives.

(2) Inspection procedures in Advisory Circular (AC) 43.13-1B, Acceptable Methods, Techniques, and Practices Aircraft Inspection and Repair, and use of manufacturer's manuals, technical data, and personal safety in the work environment.

(3) Aircraft theory of flight and discussion of aircraft systems, to include proper operation and critical areas that are prone to failure or fatigue for at least the following systems:

- (a)** Airframe, including instrumentation, landing gear, brakes, etc.;
- (b)** Engine, including fuel and oil systems;
- (c)** Propeller and gear reduction unit;
- (d)** Accessories, including ballistic parachute; and
- (e)** Flight control operation and rigging.

(4) Use of an inspection checklist provided by the manufacturer or found in FAA AC 90-89A, Amateur-Built Aircraft and Ultralight Flight Testing Handbook, appendix A.

(5) Student course evaluation (critique).

(6) A required final test that will contain no less than 50 questions with multiple-choice answers.

NOTE: Applicant must achieve an 80 percent score or higher on the final test to pass the course. If the applicant fails, the course must be retaken in its entirety.

b. Requirements for FAA Acceptance of a 16-Hour Inspection Rating Course. An applicant submitting a 16-hour ANV aircraft repairman rating course must submit the following information to AFS-300/SAD.

(1) A letter of request, identification of the person or company, location, telephone number, contact person, and the class of Antique Non Commercial Vintage the applicant wishes to teach. If instructors are added or removed from the course, the course provider must submit a letter to AFS-300/SAD, explaining the change at least 2 weeks before presenting the next course. Included in the applicant's letter of request is a statement that the applicant will allow FAA access to any location where the training is being held.

(2) A disk with Microsoft-compatible files containing the following:

(a) Course outline covering the subjects taught and the length of time each subject is taught. The course should be 75 percent lecture and 25 percent practical training.

(b) Description of the training aids used, copy of the PowerPoint (or similar program) presentations, and a list of the videotapes, parts, tools, etc., used in the course.

(c) Handbooks and hand-out material.

(d) Description on how the training will be provided, and how names of students and each test score result will be maintained for a 2-year period.

(e) A sample certificate of completion, course critique, and course test.

(f) Instructor's qualifications. The instructor must be an individual with at least a mechanic certificate with an airframe and powerplant rating with 3 years experience working on General Aviation (GA) aircraft of 6,000 pounds or less.

(g) A schedule of where and when the training will be provided over the next 12 months.

(i) If the course will be presented at multiple locations nationwide, the applicant must provide AFS-300/SAD with:

(A) A schedule of classes and locations for the first 12 months.

(B) A schedule of classes and locations for the second 12 months, at least 30 days before the 1 year anniversary date of the letter of acceptance.

(C) A general description of how training is provided at each location.

(ii) If the course will be presented at a fixed location, the applicant must provide AFS-300/SAD with:

(A) A schedule of classes for the first 12 months.

(B) A schedule of classes for the second 12 months, at least 30 days before the 1 year anniversary date of the letter of acceptance.

(C) A description of the facility.

NOTE: The applicant must notify AFS-300/SAD within 7 working days of any change to the schedule (e.g., a course is added or canceled).

(h) A list of the make and models of Antique Non-Commercial Vintage that will be used for the practical portion of the training.

(i) Explanation of how the course provider will assign a proctor to collect the student course critiques, and send them in a self-addressed and postage-paid envelope to AFS-300/SAD. A proctor is a student who agrees to perform the task identified above. (See Appendix 1 for a sample student course critique.)

(j) A description of how the course provider will track student attendance and how make-up time will be addressed. All make-up time must be completed within 7 days after the scheduled end of the course.

c. AFS-300/SAD's Responsibilities for the 16-Hour Inspection Rating Course.

(1) AFS-300/SAD will send a letter to the applicant stating that the course is FAA-accepted for a period not to exceed 24 calendar-months from the date on the letter. Sixty days prior to the end of the 24-month acceptance period, the applicant must reapply to AFS-300 for continuing authority to provide FAA-accepted training. If the training provider fails to reapply, a notification letter will be sent to the provider stating that the course is no longer FAA-accepted, and the provider must stop further training.

(2) AFS-300 / SAD will assign an identification (ID) number to each course. The course ID will contain four elements: the prefix "ANVR" for the ANV aircraft repairman.

NOTE: The course provider is required to display the FAA's letter of acceptance at each location where the course is given. The original letter of acceptance can be displayed on the wall, or a photocopy can be displayed in the student's workbook.

(3) AFS-300 / SAD will maintain a computer database record on all accepted training providers, including training course ID numbers for each course.

(4) If an applicant does not meet the minimum training course requirements, AFS-300 will mail a letter of denial to the applicant within 30 working days after receipt of the application. If a letter of acceptance has been issued but FAA field surveillance finds the training provider course is substandard, AFS-300 may suspend or revoke the letter of acceptance by notifying the training provider, in writing, within 5 working days and include the date when the suspension or revocation becomes effective. AFS-300 will immediately notify and revoke the Antique Non Commercial Vintage repairman certificate of any individual who attended any training provider's course during the period of substandard instruction. No credit will be given to individuals who fail to complete a training course.

7. DIRECTIVE INFORMATION AND FEEDBACK. For additional information, clarification, or to suggest improvements to this order, contact the Aircraft Maintenance Division, AFS-300, at (202) 267-3546.

/s/ John M. Allen for

James J. Ballough

Director, Flight Standards Service

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APPENDIX 1.
ANTIQUE NON COMMERCIAL VINTAGE REPAIRMAN TRAINING COURSE
EVALUATION

Course Name: _____ **Course Number:** _____
Instructor: _____ **Instructor:** _____
Instructor: _____ **Instructor:** _____
Date: _____ **Name (Optional):** _____

**Rate the quality of
the items below
based on the
following rating
scale. 1**
POOR
(Provide comment on
the next page)

2

FAIR
(Provide comment on
the next page)

3

GOOD

4

EXCELLENT

NA

NOT APPLICABLE



Attachment C

Canadian Owner Maintenance Class Safety Data and Accident Rates

Overview

The Owner-Maintained Aircraft Certification category was created by Transport Canada on April 17, 2000 as a means to allow owners of certain private aircraft to continue to operate their aircraft safely in an environment where replacement parts are difficult, if not impossible to obtain.

1. This category allows an aircraft to be converted from type-certificated airworthiness certification to a special certification category where owners become responsible for maintaining their own aircraft, in a manner very similar to our experimental amateur-built and light-sport aircraft categories.
2. Once converted to the Owner-Maintained certification category the owner is prohibited from converting it back to a type-certification.
3. Owner-Maintained Aircraft are limited to a gliders (Canadian Aviation Regulation (CAR) standard 522) and small airplanes (CAR standard 523) that meet these specific criteria:
 - a. Type certificate does not authorize more than four occupants;
 - b. Maximum certificated take-off weight does not exceed 1,814 kg (4,000 pounds);
 - c. Aircraft is of a type and model that has not been manufactured during the preceding 60 months;
 - d. Fewer than 10% of Canadian aircraft of the type and model concerned are operating in Canadian commercial air service at the time of application;
 - e. Powered by a single, normally aspirated, piston engine and is unpressurized; and
 - f. Except for gliders, powered gliders or aircraft with airframes of wooden construction, the aircraft type and model has a fixed landing gear and a fixed pitch propeller (ground adjustable propellers are considered fixed pitch propellers).

Accident Rates

The overall accident trends and rates indicate that the Owner-Maintained aircraft category is a safe fleet with accident rates comparable to Standard category. The following is an overview of Canadian O-M accident rates and includes a comparison to accidents rates for the Canadian Civil Fleet as a whole. Data Source EAA unless otherwise noted.

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Accidents Involving Canadian Owner-maintained Aircraft since January 1, 2002	3	2	3	8	5	4	1	3	
Number of Owner-Maintained Aircraft Registered	239	268	302	335	369	404	446	483	502
Accident Rate per 1,000 aircraft registered	12.55	7.46	9.93	23.88	13.55	9.90	2.24	6.21	
Comparison – Accident Rate of all Civil Aircraft registered in Canada									
Accident Rate per 1,000 aircraft registered	11.86* (264 total)	12.53* (284 total)	10.5* (243 total)	10.55* (251 total)	11.47* (280 total)	9.8	8.7	8.4	
Number of Canadian Civil Aircraft Registered	22,258*	22,650*	23,123*	23,771*	24,397*	26,141	26,948	27,349	

* indicates data from Transport Canada or derived from Transport Canada Statistics

Specific Causes of O-M Accidents

In most years the O-M accident rate appears to be below the rate for standard category aircraft in general. While the number of O-M aircraft is statistically significant, normal random fluctuations could account for this number. As the number of O-M accidents is small, it is possible to evaluate them on individual basis to see the owner maintenance privileges contributed to the accidents.

Specifically, the causes of all the O-M maintenance category accidents breaks down as follows:

- 11 of the O-M accidents were seaplane landing or takeoff incidents.
- 5 of the O-M accidents were gusty winds landing or takeoff incidents.
- 4 of the O-M accidents were snow or ice landing or takeoff incidents.
- 2 of the O-M accidents were caused by not securing the aircraft on the ground.
- 1 of the O-M accidents occurred when the pilot flew into powerlines.
- 6 of the O-M accidents were either undetermined or wreckage not located.

Source EAA and Transport Canada.

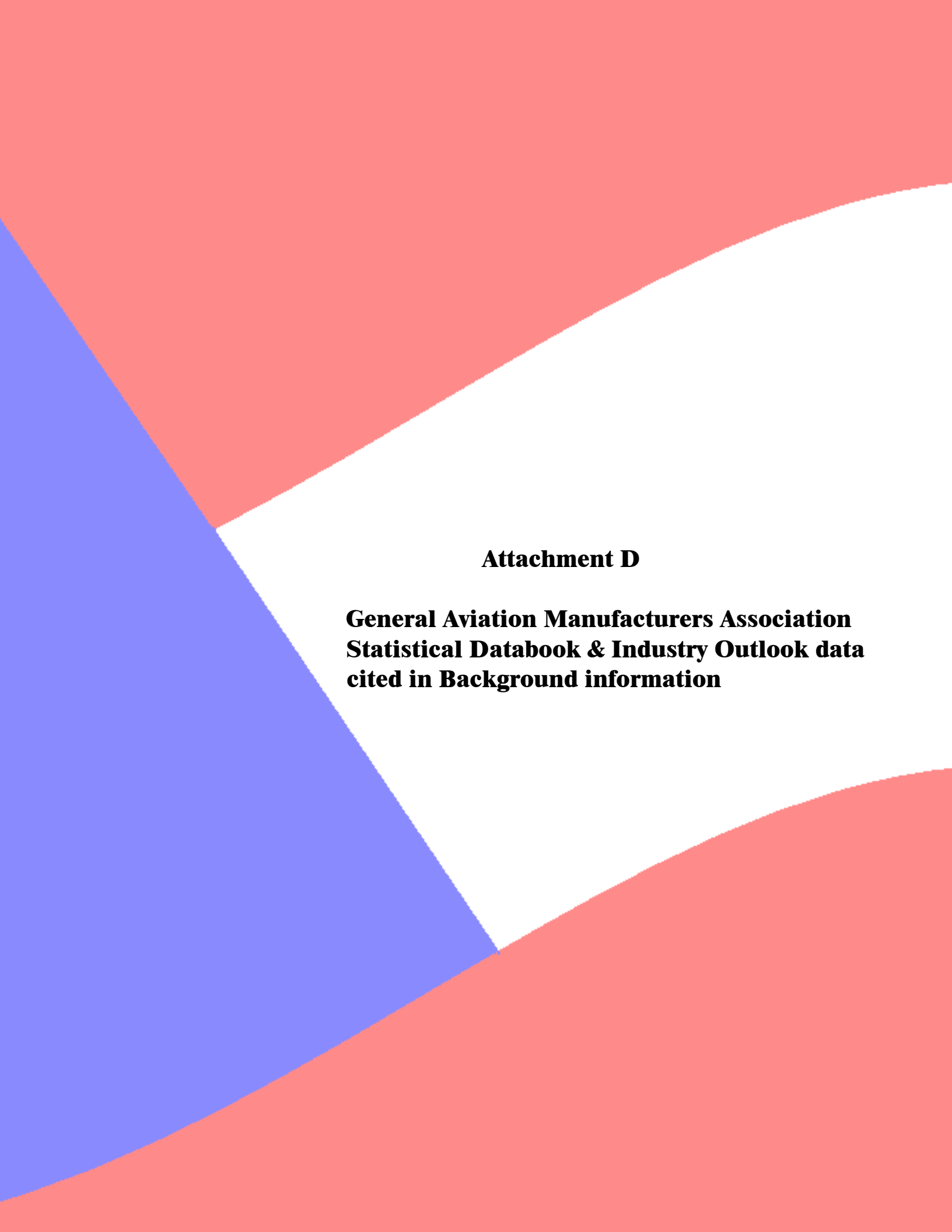
It is illustrative to note that in no case has the fact that the Aircraft is Owner Maintained or the use of non-certified parts been a major or contributing factor to any of the accidents listed.

Conclusion

The accident rate data from the Canadian Owner Maintenance Category covers over a decade of experience with a statistically significant fleet size. It indicates that both in terms of accident rate and cause, owner maintenance category aircraft are as safe or safer than standard category aircraft. Neither the Owner Maintenance Program nor the use of non certified components has contributed to an accident in the Canadian O-M fleet in the last decade.

It is significant that in many of the years looked at the O-M aircraft actually had a better (safer) accident rate than the Standard Category aircraft. Likely this is not due directly to the O-M program, but as an indirect effect. It is likely that because of the lower costs and greater involvement of the aircraft owners, usage rates improved which contributed towards pilot currency. In addition, owners may have replaced components more frequently due to the lower cost thus improving the overall maintenance of the aircraft. Further, it is also likely that many of the aircraft are equipped with improved avionics systems, allowing safer flight, than comparable standard category aircraft because of the less burdensome approval process and lower cost.

Therefore it is safe to conclude that the Canadian O-M system has not detrimentally impacted safety and it is likely that it actually in directly improved safety.



Attachment D

**General Aviation Manufacturers Association
Statistical Databook & Industry Outlook data
cited in Background information**

Active U.S. General Aviation and On-Demand FAR Part 135 Aircraft by Type (2010)

Piston Engine Airplanes	155,419
Turboprop Airplanes	9,369
Turbojet Airplanes	11,484
Rotorcraft	10,102
Gliders	1,899
Lighter-Than-Air	3,785
Experimental	24,784
Light Sport Aircraft	6,528

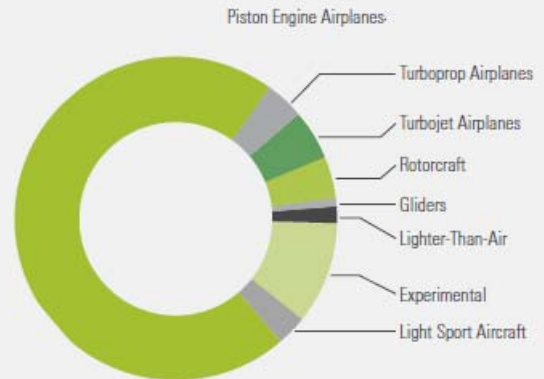


FIGURE 1.2 U.S. Manufactured General Aviation Airplane Units and Billings (1974-2011)

