AC NO: 135-3A
DATE: 1/16/75

ADVISORY CIRCULAR

AIR TAXI OPERATORS AND COMMERCIAL OPERATORS OF SMALL AIRCRAFT

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Initiated by: AFS-800

AC NO: 135-3A

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SUBJECT: AIR TAXI OPERATORS AND COMMERCIAL OPERATORS OF SMALL AIRCRAFT

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1. PURPOSE. This advisory circular sets forth guidelines and procedures to assist persons in complying with the requirements of Federal Aviation Regulations, Part 135. Such persons, for the purpose of this advisory circular, will be hereafter referred to as operators.

2. CANCELLATION. Advisory Circular 135-3, Air Taxi Operators and Commercial Operators of Small Aircraft, dated February 17, 1970, is cancelled.

3. REFERENCES. Federal Aviation Regulations, Parts 43, 61, 65, 91, 97, and 135.

4. BACKGROUND. The following actions were the basis for revision of this advisory circular:

a. Amendment 91-101, Subpart D - Large and Turbine-Powered Multiengine airplanes, adopted July 17, 1972, amended the inspection requirements for small turbine-powered multiengine airplanes operated under Part 135 of the Federal Aviation Regulations.

b. Amendment 15 to Civil Aeronautics Board Regulations, Part 298, Classification and Exemption of Air Taxi Operators, effective April 25, 1973, amended the economic regulation with respect to insurance and registration requirements.

C. R. Melugin, Jr.

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Acting Director, Flight Standards Service

Initiated by: AFS-800

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1. GENERAL. The requirements for renewal of an Air Taxi Commercial Operator Certificate are never less than the requirements for original issuance. This information will cover original issuance of certificate as well as renewal of an existing certificate.

2. APPLICATION FOR CERTIFICATE. Submit FAA Form 8000-6, Application for Air Taxi Commercial Operator (ATCO) Certificate Under FAR 135 (OMB: 04-R0171) (See Appendix 1), in triplicate, to the FAA district office that has jurisdiction over the area in which the applicant's principle business office is located. Items 1 through 10 of the form will be completed.

   a. It is essential that the true name and address of the applicant be shown on the application. An organization may operate under more than one business name on a single certificate; however, only one certificate will be issued to any person (definition of person in FAR 1).

   b. Preliminary discussion between the applicant and the assigned Flight Standards inspector may be desirable to expedite the effective processing of the application. During the course of these informal discussions, a mutually convenient time and date should be established after the formal application has been filed to (1) physically inspect the aircraft, aircraft equipment, operators manual, training program, facility, personnel qualifications, and (2) conduct any required qualification tests.

3. ELIGIBILITY FOR CERTIFICATE AND OPERATIONS SPECIFICATIONS (FAR 135.15) An applicant must meet certain Civil Aeronautics Board and Federal Aviation Administration eligibility requirements, except that there are no CAB requirements for a Commercial Operator Certificate.

   a. Civil Aeronautics Board. Before beginning operations, an applicant who desires to engage in the direct air transportation of passengers and/or property, and/or in the transportation within the 48 contiguous states, Alaska or Hawaii, of mail by aircraft, is required by the Civil Aeronautics Board to meet certain insurance obligations and register with the Board. Registration, as specified in CAB Part 298, must be accomplished before beginning such operations, and thereafter the air taxi operator is required to re-register with the Board biennially.

   b. Federal Aviation Administration. An applicant must show, to the satisfaction of the Administrator, that he is able to conduct each kind of operation for which he seeks authorization in compliance with applicable regulations.

4. AMENDMENT OF CERTIFICATE. An operator who desires to change his business name and address should make application for amendment in the same manner as for original certification.

5. AMENDMENT OF OPERATIONS SPECIFICATIONS (FAR 135.19). An amendment of existing operations specifications must be made at least 15 days before the date proposed for the amendment to become effective, unless a shorter filing period is approved by the FAA district office. The ATCO is required to submit an original and three copies of Form FAA 1014, Operations Specifications (OMB: 04-R0075), to the FAA district office having jurisdiction over the area in which the operator's principal business office is located.

   a. The operator must complete the upper half of the signature side of the form, identifying himself as the applicant in the same name as that under which he is certificated. The request with reasons and supporting data, should be given in the space provided (see Appendix. 1, Page 10).

   b. To assist the operator in completing the front portion of the Form FAA 1014, the certificating district office should be contacted for the exact wording. This will eliminate the possibility of errors causing further correspondence and delay.

   c. If the application is approved, the district office will retain one copy and return the approved original and one copy to the applicant. The applicant will be asked to sign and date the copy in the space "Received for the applicant", return the copy to the district office, and retain the original.

   d. If the application is denied, the applicant will be advised in writing of the reasons for denial. Within 30 days, the applicant may petition the Administrator to reconsider the denial under FAR 135.19(c). The petition should contain reasons and data to support why reconsideration is considered necessary and should be forwarded in writing to the local FAA district office who in turn will forward it to the FAA, Flight Standards Service, Washington, D.C., for final decision.

6. AIRCRAFT REQUIREMENTS. A current list of the aircraft used or available for use, and type of operations for which each is equipped, shall be kept and made available for inspection by representatives of the Administration (§ 135.43(a)(3). A sample format is shown in Appendix 6, Page 1. When an aircraft is leased, the written agreement required under § 135.31 should clearly establish who is responsible for assuring that required maintenance on the aircraft is performed. A copy of the lease(s) or written agreement(s), including the arrangement for performance of required maintenance, should be included with the application.

7. APPLICABLE RULES (FARs 135.3 and 135.141). FAR 135 has been limited to those rules particularly applicable to operations conducted under it. It does not repeat rules of a general nature such as those contained in FARs 43, 61, 65, and 91, nor does it relieve the operator from compliance with rules of general applicability contained in other Parts of the Federal Aviation Regulations. Likewise, FAR 135 does not relieve an operator from compliance with Annex 2, Rules of the Air, to the Convention of International Civil Aviation, or regulations of any foreign country when operating outside the United States.

8. CERTIFICATE HOLDER'S MANUAL. This is a management device that contributes to the orderly and safe conduct of operations. It is not necessary that the manual be voluminous and pretentious, rather it should be a practical document commensurate with the size and complexity of the operation it describes. Its purpose is to advise persons connected with the air taxi overall operations, of the policies and procedures that the operator will adhere to. When it is determined that all or any part of the manual is not required, the local FAA district office may authorize a deviation from the manual requirements by issuing an amendment to the operations specifications. It is urgently recommended that a section of the manual be set aside to explain the procedures to be used by the operator for the accomplishment of aircraft inspection and maintenance. This section should also explain in detail the method to be used to assure that the aircraft is properly approved for return to service after maintenance. However, when an approved aircraft inspection program is utilized, it will always become the certificate holder's manual even though the other elements may not be required by the district office. The elements of the manual are described in FAR 135.27(b)(1) through (15). Flexibility concerning format and method or means of obtaining compliance with the manual requirements of section 135.27 should be of utmost concern to the operator. Consideration should be given to the types of equipment used, type of operations conducted, and geographical factors which may influence the conduct of a particular operation. Appendix 4 may be helpful in developing an Operators Manual.

   a. Weight and Balance Procedures. There are many different procedures that may be used to comply with this provision, and they will vary due to the size and load-carrying capability of the aircraft involved.

      (1) A separate procedure may be necessary for each type of aircraft used by the operator unless it can be shown that a single procedure will adequately provide compliance.

      (2) The operator may elect to develop his own procedure or use one furnished by the manufacturer of the aircraft being used.

(3) Other acceptable procedures may be found in Advisory Circular 43.13-1A, Acceptable Methods, Techniques, and Practices--Aircraft Inspection and Repair, or Advisory Circular 135-1A, Air Taxi Aircraft Weight and Balance Control.

(4) The procedure should provide for blocking off seats or compartments and adjusting fuel loads when necessary to remain within center of gravity limits. An effective means should be provided to assure that those seats and compartments are not used during the operations specified.

(5) The procedure should also provide crewmembers, cargo handlers, and other concerned personnel with complete information regarding distribution of passengers, fuel, and other items, and the distribution and security of cargo to prevent the shifting of weight in flight.

(6) Irrespective of the procedure developed, it should be in written form and identified with the operator's name.

(7) The operator's manual will contain a procedure that will ensure that the empty weight and center of gravity for multiengine aircraft will be calculated by actual weighing of the aircraft within the preceding three years.

(8) For new aircraft, the three-year period will be calculated from the date the aircraft was originally certificated for airworthiness.

(9) For other aircraft, the data will be calculated from the date of the last actual weighing of the aircraft.

(10) Operators having a fleet weight-and-balance system required by their operations specification shall comply with the reweighing requirements called out in that system.

(11) Advisory Circular 135-1A shows one acceptable type of fleet weight control system. The procedures are applicable to any aircraft being used by the operator, even those that he may occasionally lease.

(12) The procedures provided should be of sufficient scope and detail so that the pilot-in-command can readily determine that the aircraft is properly loaded so as not to exceed its maximum gross weight or center of gravity limits.

b. Accident Notification. The National Transportation Safety Board Investigation Regulations Part 430 requires the operator to immediately, and by the most expeditious means available, notify the nearest NTSB Bureau of Aviation Safety field office of aircraft accidents, incidents, and overdue aircraft. The operator should, therefore, develop a procedure to ensure that he will be immediately notified and furnished information in sufficient detail to comply with this notification responsibility.

c. Required Airworthiness Inspections

(1) Procedures must be developed which ensure that the pilot-in-command can determine that required airworthiness inspections have been made. These inspections could be any of the following that may be applicable:

(a) 100-hour inspection (FAR 91.169(b)).

(b) Annual inspection (FAR 91.169(a)).

(c) Routine and detailed inspections (FAR 91.171).

(d) Any one of the five options provided in FAR 91.217.

(e) Inspections required by the approved aircraft inspection program (FAR 135.60).

(f) Inspections required by Airworthiness Directives.

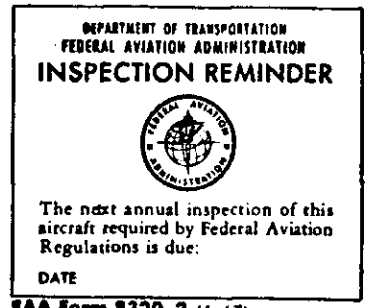
(g) VOR equipment check (FAR 91.25).

(h) Altimeter system tests and inspections (FAR 91.170).

(i) ATC Transponder tests and inspection (FAR 91.177).

(2) The following examples will illustrate how procedures may be developed that would be acceptable means of complying with this provision.

(a) An operator has two aircraft being operated on the 100-hour/annual inspection system. In this case, entries in the maintenance record required by FAR 43.11 could suffice to allow the pilot-in-command to determine when the last inspection was made and the next inspection is due. In some cases, operators have made the task easier by inserting on each new maintenance record page the date the next annual is due and the time in service when the next 100-hour inspection is due. FAA Form 8320-2, Inspection Reminder (ref. AC 91.11A), is another handy method of keeping the annual due date where the pilot can always see it.


DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
INSPECTION REMINDER

The next annual inspection of this aircraft required by Federal Aviation Regulations is due:

DATE

FAA Form 8320-2 (6-67)
Formerly FAA Form 2912

* GPO 1967 O—277-829

(b) An operator has many aircraft and conceivably could be operating on either the 100-hour/annual, progressive, approved aircraft inspection program, or any other inspection program described in FAR 91.217. Many of these operators have developed and installed large aircraft status boards. This system can display all types of information useful to the operator's personnel, including space, enabling the pilot-in-command of a particular aircraft to determine when the next airworthiness inspection is due. It also serves the operator the dual purpose of allowing maintenance personnel to schedule their work so that inspections can be conducted in an efficient manner.

(c) An operator has aircraft that are being inspected under an aircraft inspection program (ref. §§ 91.217 and 135.60). In this instance, he could provide a maintenance record that would show the pilot-in-command that the required airworthiness inspections contained in his inspection program have been conducted. This is often combined into the daily aircraft record (ref. Appendix 7).

(d) Many airworthiness directives are issued that require either a one-time inspection or repetitive inspections. The operator should devise a procedure that will allow the pilot-in-command to determine that these inspections have been made. This can be done in many ways but should be adaptable to the type of operations involved. In some instances, operators provide a daily aircraft record in

which maintenance personnel attest to the conduct of such inspections. In other cases the operators may provide a separate section in the back of the maintenance record (ref. FAR 91.173(a)(1)) in which compliance with airworthiness directives is made, including the method of compliance.

(e) VOR equipment checks, ATC transponder checks and altimeter system tests and inspections can also be included on a daily aircraft record sheet or on a status board such as described in paragraph (b).

(3) Approved for Return to Service. In addition to the procedures in (1) and (2) above, the operator should develop procedures that will allow the pilot-in-command to determine that the aircraft has been approved for return to service after required airworthiness inspection or maintenance. One way that this could be done is to include it as an item in the daily aircraft record described in paragraph d below. In order to clear up some misunderstanding in terminology, "approval for return to service" is considered to be a properly executed maintenance record entry in accordance with FAR 43.9. "Return to service" as used in FAR 43.5 is considered to be any action indicating an intent by the owner, or operator, or other person to put the aircraft in an operational status.

d. Reporting Mechanical Irregularities or Defects. This is an important procedure and should be covered in detail. It is a method whereby the pilot-in-command will inform the operator of mechanical irregularities or defects that come to his attention during flight time or during preflight or post-flight inspection. The operator is then able to inform maintenance personnel of the suspected condition of the aircraft so that an efficient determination of the airworthiness condition of the aircraft can be made. It is also a basis for the operator of multiengine aircraft to report Mechanical Reliability Reports (FAR 135.57) and Mechanical Interruption Summary Reports (FAR 135.59). Some operators have developed daily aircraft record sheets that contain many items of useful information. Among the items that can be entered are "pilot squawks" or mechanical irregularities or defects. This system has three advantages.

(1) It enables the pilot to comply with the reporting of mechanical irregularities or defects.

(2) It provides the operator a readily available source for preparing his daily Mechanical Reliability Reports and monthly mechanical interruption summary.

(3) It provides a means of communication between flight personnel and maintenance personnel, allowing maintenance personnel to go straight to the suspected areas without having to search for them.

e. Correction of Mechanical Irregularities or Defects. It is of the utmost importance that procedures be established by the operator to allow the pilot to determine that mechanical irregularities or defects previously reported have been corrected. These procedures are closely related to those in paragraph 8.d., and the operator should provide a space for this on their daily aircraft record. (Reference sample format, Appendix 7.) Proper use of this type of format allows the pilot to determine quickly what has previously been reported, whether or not action was taken regarding the item, and the signature and certificate number of the maintenance personnel who approved the aircraft for return to service.

f. Deferment of Maintenance Items. Caution should be used in deferring maintenance items since it may constitute a violation of the FARs to operate an aircraft with equipment inoperative when that equipment was contained in the original Type Certificate of the aircraft.

g. Procedures for Obtaining Maintenance. This section is where the operator instructs those pilots, who are so authorized to act for the operator, in the procedures for obtaining maintenance and servicing at places where previous arrangements have not been made. Persons who perform inspections, maintenance or preventive maintenance should be certificated and adequately trained to perform these functions on the particular aircraft. Again, this can be stated in a relatively simple set of procedures, outlining such items as types of service authorized, restrictions on type of person who may perform maintenance (i.e., certificated mechanic, repair station, etc.), and possibly dollar limitations.

h. Refueling Procedures. For this part of the manual the operator is required to develop procedures that will inform his personnel of the manner in which refueling is to be conducted. There are no rigid guidelines that can be established for this section. The extent of control over fueling procedures will vary from complete control (such as when the operator operates the fueling facility), to little control (such as deciding whether or not to purchase fuel). In the event the operator manages the fueling facilities, there are several publications he will find useful in setting up good practices for fueling. Some of these are: (1) AC 00-34, Aircraft Ground Handling and Servicing; (2) AC 20-43B, Aircraft Fuel Contamination; (3) FAR 159, National Capital Airports, § 159.133, Fueling Operations, which outlines procedures that FAA requires to be followed at Washington National Airport and Dulles International Airport; and (4) National Fire Protection Association, 60 Batterymarch Street, Boston, Massachusetts 02110, publishes NFPA No. 407, Aircraft Fueling which established industry standards for aircraft fueling on the ground. In addition, the various fuel companies have publications outlining recommended practices and procedures.

When fueling is accomplished at facilities other than those operated by himself, the operator should establish procedures that will determine that safe practices are being employed in the storage and dispensing of fuel. In addition, he should provide the flight crew with the procedures to be followed during refueling operations.

i. Approved Aircraft Inspection Program (FAR 135.60). After an operator has this program approved by the FAA, he must include it as an element of his manual (see paragraph 16 for details).

j. Inspection Programs (FAR 91, Subpart D). After the operator has selected the inspection program he desires and has complied with the reporting procedures of FAR 91.217, he must include it as an element of his manual.

9. FLIGHT LOCATING REQUIREMENTS (FAR 135.29). An operator filing FAA flight plans for each flight need not establish other flight locating procedures.

10. AIRCRAFT PROVING TESTS (FAR 135.32).

a. What? Flight conducted to demonstrate the reliability of an aircraft and the operator's competence to operate it in accordance with the provisions of FAR 135.

b. When? Required only if an operator intends using a turbojet airplane or an aircraft for which two pilots are required for VFR operations by FAR 135 if he has not previously proved that aircraft or one of the same make and similar design in FAR 135 operations.

c. Notification. An operator preparing to conduct aircraft proving tests should submit a written plan to its certificate-holding district office at least 15 days before the beginning of the intended tests.

d. Plan. The plan is not limited to but should include at least the following:

(1) Pertinent data relative to the aircraft such as make, model, type and instrumentation, autopilot, navigation, communications equipment installed.

(2) Revisions to operators manual and training program.

(3) Identification by name, grade of certificate, and company title of personnel who will conduct the proving tests.

(4) An hourly breakdown of proving test flight time allotted to training, night, instrument and airports.

NOTE: Entry into a representative number of enroute airports would be those typical of the intended operation, such as high altitude, sea level, hard surface, controlled, VASI equipped noncontrolled, short field, and unimproved.

(5) Deviation request, if any.

e. Proving tests must be acceptable to the Administrator; therefore, we suggest coordination with the certificate-holding district office prior to submission of the plan, including arrangements for FAA participation.

11. BUSINESS OFFICE AND OPERATIONS BASE (FAR 135.41). An operations base, as used in FAR 135.41, is considered to exist wherever an operator bases one or more aircraft and a crew. For example: an operator domiciling a pilot and aircraft at a location other than its home base for the purpose of conducting passenger, cargo, or mail flights, is considered to have established an operations base. However, an operator who bases an aircraft, pilot, and mechanic at a location to accommodate a construction or seismic operation on a temporary basis is considered to have established only a temporary operations base.

12. LETTER OF COMPETENCY. The letter of competency issued to a pilot in accordance with FAR 135.131 may be used to verify compliance with the initial and recurrent instrument check recordkeeping requirements of FAR 135.43. The letter need not be carried by the pilot.

13. PILOT AND FLIGHT ATTENDANT CREWMEMBERS TRAINING PROGRAMS AND TESTING (FARs 135.55, 135.137, 135.138, 135.139). Each operator, other than one who uses only himself as pilot, is required to establish and maintain a training program appropriate to the assigned operation for pilots and if appropriate, flight attendant crewmembers. Further, he must ensure that those persons are adequately trained to meet the applicable initial and recurrent knowledge and practical testing requirements of FAR 135.55. Curriculums for ground and flight initial, transition, and recurrent phases of training are a required part of these programs. Completion of the initial and recurrent phases of training and passing a written or oral and flight test is required by the beginning of the 12th calendar month before an operator may use or a person may serve as a pilot in that service. The curriculums should contain, but not be limited to, those items necessary to ensure satisfactory completion of the testing requirements of FAR 135.138(a) and (b).

It is recommended that each operator develop training programs based on his individually authorized operation, ratings, and area of operation as well as aircraft, personnel, and facilities to be used. The curriculum outlines in Appendix 5 may be helpful in developing these required programs.

14. MECHANICAL RELIABILITY REPORTS (MRR). Each operator of multiengine aircraft is required to submit Mechanical Reliability Reports daily. He will submit them on FAA Form 8330-2, Malfunction and Defect Report (OMB:04-R0003), which will be supplied by his local district office so that the completed form will be returned to that office. A separate space is provided on the form for all information required by FAR 135.57.

MRRs will be reviewed by the local district office and forwarded to the FAA Maintenance Analysis Center in Oklahoma City, Oklahoma, where the information will be encoded and put into a data bank of service difficulties. The information in the data bank is continually analyzed and trends or significant conditions are detected. The information is then published in Advisory Circular 20-7 (as amended), General Aviation Inspection Aids, which is available to the public. More serious items are transmitted directly to the local FAA district office who, in turn, will alert the operators. It is to every operator's advantage to participate in this information system.

The operator is responsible for submitting the reports even though he contracts maintenance to some other person who discovers the reportable condition. In such cases, the operator should make arrangements, at the time he contracts the maintenance, to be furnished the information necessary to comply with this reporting requirement.

15. MECHANICAL INTERRUPTION SUMMARY. The format for submitting the information required by FAR 135.59 should be agreed upon by the local district office and the operator.

16. APPROVED AIRCRAFT INSPECTION PROGRAM. The air taxi industry has undergone phenomenal changes in the last decade in numbers, complexity, and types and frequency of operation.

a. Background. In the past there were only two separate inspection programs available to air taxi operators - the 100-hour/annual inspection or the progressive inspection. The basic difference between the two programs is that the 100-hour/annual inspection program requires a complete comprehensive inspection each 100 hours time in service plus an annual inspection (the scope and detail being the same as the 100-hour) at least once each twelve calendar months, while the progressive inspection is based on conducting inspection increments in an on-going time-in-service or calendar-time period. The progressive inspection requires a schedule that provides for a complete inspection of the aircraft at least once each year that is consistent with the manufacturer's recommendation and ensures that the aircraft will be airworthy at all times. These two inspection requirements are adequate for the type of operation

conducted by the majority of operators; however, there are air taxi operators conducting or proposing to conduct operations for which these requirements do not provide efficient and effective inspection of aircraft used in the particular operation. Accordingly, a new inspection program, called Approved Aircraft Inspection Program, has been provided for under FAR 135.60.

b. What is it? The Approved Aircraft Inspection Program is developed by an ATCO operator to meet his particular inspection requirements. It is used in lieu of the inspections in FAR 91.169 or 91.171, and allows the operator the flexibility he needs in having his aircraft inspected. While it is in lieu of FAR 91.169 or 91.171, it cannot be contrary to any other regulatory provisions such as FAR 91.34, Category II Manual; 91.170, Altimeter System Tests and Equipment Check; etc. It should be made clear at this point that this program only encompasses the function of inspection which includes tests and checks. While "Inspection" is part of maintenance, it is limited in scope to just the function of inspection while "maintenance" includes other functions such as overhaul, repair, preservation, and replacement of parts. Therefore, when an Approved Aircraft Inspection Program is developed, it should only speak to inspection and not the other functions of maintenance. Simply stated, the Approved Aircraft Inspection Program does not encompass overhaul periods and retirement or replacement times. Further, it does not require a complete cycle each year as does the Progressive Inspection.

c. When may an approved aircraft inspection program be required? To determine whether or not the 100-hour/annual or progressive inspection is adequate for any make and model of aircraft used by an operator, the FAA inspector may consider the manufacturer's maintenance and inspection recommendations, applicable airworthiness directives, malfunction or defect reports, mechanical reliability reports, Mechanical Interruption Summaries, aircraft maintenance records, reports of inspections, the condition of the aircraft, and the complexity of the aircraft. The inspector may consider those operational factors which may cause the 100-hour/annual or progressive inspection to be inadequate such as high utilization, frequent landings, weather extremes, and reliance on communication and navigation equipment. The 100-hour/annual or progressive inspection may be considered inadequate if:

(1) The 100-hour/annual or progressive inspection interval does not detect defects in time to prevent operation of the aircraft in an unairworthy condition or to prevent failure of any equipment that is necessary for safe operation.

(2) The scope and detail of the 100-hour/annual or progressive inspection is not sufficient to verify condition, accuracy, and tolerance of any aircraft component or equipment.

d. Notification.

(1) Previously certificated operator. Whenever the Administrator determines that the 100-hour/annual or progressive inspections are not adequate, the certificate-holding district office will amend the operations specification to require the operator to develop an Approved Aircraft Inspection Program (see Appendix 8). The amendment will be transmitted by a letter which will explain those areas in which the present inspection system is deficient in order to provide the operator with a basis to begin to develop his inspection program. Close coordination between FAA personnel and the operator's personnel is essential at this time to effect an orderly development phase. The operator will be given 30 days to develop his inspection program unless a different period of time is specified in the Operations Specifications.

(2) Newly certificated operator. Whenever an application is made and an ATCO certificate is issued, the certificating district office will determine if the inspection system proposed for use by the operator (either the 100-hour/annual or progressive) is adequate. In the event it is not adequate, the certificating district office will issue an operations specification requiring the operator to develop an approved Aircraft Inspection Program. As in (1) above, the letter of transmittal will explain the areas that are deficient and the corrective procedures to be followed.

e. Factors to be considered in development and approval. There are several factors that should be given consideration by the operator when he is developing his inspection program. A careful analysis of all the factors listed below should be made before a conclusion is reached.

(1) Size and stability of the fleet. Suitable controls should be described that will assure that aircraft added to the fleet conform to the approved aircraft inspection program. Such aircraft should be inspected to determine their condition and what should be done to fit them into the approved aircraft inspection schdule.

(2) Operator's maintenance management practices. An operator who has a well established maintenance organization can readily adapt to the disciplines that are necessary in an approved aircraft inspection program. This should not be taken to mean that an operator must have a maintenance organization. It is entirely possible to contract the approved aircraft inspection program to another organization that has the capability to inspect the aircraft in a manner established in the program. However, the operator is still responsible to assure that the inspections are made in accordance with the program.

(3) Area of operations. Some operational environs are peculiar to only certain operators. Examples are: operations in extreme cold or hot weather, desert operations that expose aircraft to problems associated with blowing sand, and operations in salt-laden atmosphere. Approved aircraft inspection programs should incorporate procedures that control problems associated with particular areas of operations.

(4) Types of operations. Much can be said about how the type of operation being conducted can have an effect on the type of approved aircraft inspection program being developed or considered for approval.

(a) For example, a fleet of aircraft are being operated in a high density terminal area of the National Airspace System under IFR conditions. The avionics system should be inspected with greater frequencies than normally required in order to provide the reliability needed to operate in today's environment. This would be caused by the numerous contacts with traffic control, channel changes, etc. The need to maintain accuracy goes without saying.

(b) Another example would be the case of a fleet of aircraft being operated on short stage lengths and in and out of rough unimproved runways. This would cause more frequent cycles of landing gear, flap, and brake systems than might have been anticipated in a manufacturer's suggested 100-hour inspection system. The rough terrain operation could also impose stresses on the airframe and systems that would necessitate more frequent inspections in some areas than others.

(c) High daily utilization should also be considered. Many of today's air taxi aircraft are being flown as much as 12 hours a day. This leaves little time for conducting inspections and performing other routine maintenance. Instead of scheduling a complete, comprehensive inspection at one time, it may be advantageous to break the complete aircraft inspection down into smaller increments, scheduling them on different days.

(5) Frequency of landings. Approved aircraft inspection programs should emphasize inspection of those parts of aircraft that receive extra wear and tear as a result of exposure to a high frequency of landings.

(6) Manufacturer's recommendations. Many manufacturers provide comprehensive inspection schedules for their product. These schedules are developed from their extensive knowledge of their product plus the service experience gained from the operators of the aircraft.

A careful analysis of the inspection schedule may show that the manufacturer considers that a need exists to have inspections made in certain areas more frequently than the basic 100-hour period to provide the reliability he considers necessary. On the other hand, it may show that there are certain areas of the aircraft where less frequent inspections than the 100-hour period are necessary or desirable.

(7) Service history. The service history of an aircraft will be a large factor in the development and approval of the approved aircraft inspection program. After an aircraft model has been in service, certain trends will become apparent that will dictate the need for inspection periods other than those provided in the 100-hour. These trends are generally those resulting in unsatisfactory or unreliable conditions either experienced by the operator himself or by other operators of the same basic model. Service history is obtained from information received from the manufacturer, other operators, Airworthiness Directives, General Aviation Inspection Aids, or from information available in the local FAA district office. In any event, service history should be carefully considered when the program is developed or approved.

f. Development. Whether the approved Aircraft Inspection Program is required to be developed as a result of a finding by the Administrator or it is developed at the option of the operator, the responsibility for the actual development is solely that of the operator. There is no set format that can be prescribed since each operator's inspection requirements may differ from those of another operator. Each program must, however, encompass the requirements in FAR Section 135.60(d)(1), (2), and (3).

(1) A suggested format for instructions and procedures for conducting the inspections can be found in Appendix 11; however, it should be pointed out that this is not intended for rigid application but to serve as a guide since it only serves to illustrate a part of the program. Also, note that some of the format can be developed to serve as a maintenance record that the operator can submit for required entries under FAR 91.173(a)(1).

(2) A schedule for performance of the inspections should be established. A suggested format is shown in Appendix 12. Again, it is emphasized that this is shown only as a guide in assisting the operator to establish format and is not necessarily all inclusive. In developing the inspection schedules, including checks and tests, consider that the desired result is a cycle consisting of the following functions:

(a) Inspection - utilizing acceptable methods, techniques, and practices to determine physical condition and detect defects.

(b) Tests - operation of aircraft components, appliances, and systems to evaluate functional performance.

(c) Checks - examinations in the form of comparisons with stated standards for the purpose of certifying condition, accuracy, and tolerances.

(3) Other examples may be found in Advisory Circular 91-21. However, this advisory circular was written to conform to the Progressive Inspection requirements which required a complete cycle each year. This requirement is not placed on the approved aircraft inspection program. Inspection periods are usually established initially on the basis of manufacturers' recommendations. Information is also usually available from operators with considerable service experience regarding program areas and service and inspection periods. Since it is improbable that any two operators will have the same frequency or duration of flight, inspection schedules vary. Most, however, will be based on the continuous inspection concept. Inspection frequencies may be based on hours flown, calendar time, cycles of operation, or various combinations of these.

(4) There are several companies that are offering computerized programs to operators of certain aircraft. These programs may be acceptable provided they satisfy the particular operator's requirements and meet all other requirements.

g. Approval. The approval of the aircraft inspection program will be processed by the certificate holding FAA district office. Each page will show the signature of the FAA inspector approving it and the date it was approved.

h. Where? After the Inspection Program is approved, it becomes a part of the operator's manual (ref. FAR 135.60(e)). No aircraft should be inspected in accordance with an Approved Aircraft Inspection Program until its registration number has been listed on the Operations Specifications by the certificate holding FAA district office (see Appendix 9).

i. Who? After the program is approved, it is the responsibility of the operator to assure that inspections are accomplished in accordance with the frequency, scope, and detail established in the program. Since the inspections are part of maintenance, only those persons authorized to perform maintenance may perform the inspections. In the case of this program, only an appropriately rated certificated mechanic, or a person working under his supervision, or an appropriately rated repair station may perform the inspection. Similarly, only an appropriately rated certificated mechanic or appropriately rated repair station may approve for return to service after mainte-

nance. Since an operator certificated under Part 135 is not a maintenance entity, he is not allowed to PERFORM inspections nor is it within the privilege of the inspection authorization or the aircraft manufacturer to perform and approve these inspections.

(1) FAR 135.33 prohibits the operator from using anyone in the position of an airman (such as a mechanic) unless that person holds a CURRENT airman's certificate and is QUALIFIED for the work to be performed. This provision applies equally to mechanics employed by the operator or to those with whom the operator may contract maintenance. To determine airman currency requirements, refer to FAR 65.83.

(2) FAR 65.81 provides that a mechanic may not supervise maintenance or approve for return to service unless he has either (1) satisfactorily performed the work before, (2) has shown his ability to do the work to the satisfaction of the Administrator, or (3) has shown his ability to perform under the direct supervision of another appropriately rated mechanic or certificated repairman. Many operators take advantage of manufacturers' training schools and clinics to assure that their mechanics comply with the above provisions. In some instances, they send one or two supervisory personnel to the manufacturer and they train or "check out" other personnel on their return. Other operators have chosen to set up their own training systems and are finding this to be very advantageous. In any event, the training of maintenance personnel should be seriously considered as a means for keeping personnel current and qualified, which, in turn, will result in more efficient and effective operations.

j. Changes. After the program is approved and put into operation, the FAA will maintain close surveillance over it to determine that it is producing the results desired. Deficiencies may be noted that were not foreseen when the program was approved, or the operating environment may have changed creating deficiencies in the program. Whenever this occurs, the certificate holding district office will notify the operator by letter pointing out the areas that are deficient and requesting changes to correct the condition. As in the notification and development stages, close coordination between the district office and the operator is desirable to effect the change as quickly as possible with minimum disruption to the operator's existing program. Each page of the program is dated and signed by the local district office inspector. All copies of the program should be changed to conform with the new inspection requirement. When the operator desires to change his inspection program, he will request the change in writing and submit the proposed pages for approval by the certificate holding district office. When the changes are approved, the inspector will sign and date each page. Aircraft must not be inspected in accordance with the proposed changes until the operator receives the revised, signed and dated pages.

k. Reconsideration. Whenever an ATCO believes that a notification to develop or change an Approved Aircraft Inspection Program is not justified, he may, within 30 days, petition the Administrator to reconsider the notification. The petition should outline all the reasons why reconsideration is considered necessary by the operator and be forwarded, in writing, to the local FAA district office who will forward it to the FAA, Flight Standards Service, Washington, D.C., for final decision.

l. Listing on Operations Specifications. Aircraft inspected in accordance with the operator's Approved Aircraft Inspection Program are listed on the operations specification. When aircraft are to be removed from the program, the operator should notify the certificate holding FAA district office by submitting an original and three copies of Form FAA 1014. (1) The operator shall complete the upper half of the signature side of the form (see Appendix 9, page 2). When aircraft are to be added to the listing, a similar procedure is involved. In fact, it is possible to add and delete aircraft at the same time as shown in Appendix 9, page 2. (2) When aircraft are listed on the operations specifications as being inspected under the approved aircraft inspection program, they are not subject to the provisions of the 100-hour/annual or progressive inspection requirements (ref. FAR 91.169 or 91.171). However, when they are removed from the operations specifications and placed back in operation under FAR 91, they again become subject to those provisions. (3) To determine when the next inspection is due, the maintenance records should be examined. The next 100-hour inspection will be due not more than 100 hours time in service from the time the last 100-hour inspection was conducted. If more than 100 hours time in service has elapsed, the inspection is due before for-hire operations are conducted. (4) Similarly, the annual inspection is due 12 calendar months from the time the last annual inspection was conducted. If more than 12 calendar months have elapsed, the next annual inspection is due before further operation of the aircraft.

17. AIRWORTHINESS INSPECTION CONDUCTED IN ACCORDANCE WITH FAR 91.217. Since the adoption of Subpart D, FAR 91, other inspection programs have become available to air taxi operators of turbine-powered multiengine airplanes. An inspection program can be one recommended by the manufacturer or one established by the registered owner or operator of that airplane and approved by the Administrator, or any of the three other inspection programs provided for in FAR 91.217.

18. EXCEPTION TO SECOND-IN-COMMAND REQUIREMENTS - LIMITED IFR OPERATIONS. (FAR 135.75). The following diagrams and accompanying explanations may help in understanding the limited IFR privileges permitted, and the conditions and limitations imposed by FAR 135.75.

a. Limited IFR operations of single-engine or multiengine aircraft which do not meet the performance requirements of FAR 135.145(a)(2) are permitted provided a VFR weather buffer is available beneath the ceiling.

b. If the pilot-in-command is instrument qualified and meets the recency of experience and flight test requirements for flight in instrument conditions and the airplane is properly equipped for IFR flight, and if two pilots are not required for Part 135 operations under VFR, the pilot-in-command of an airplane carrying passengers may operate it under IFR without a second-in-command under the following conditions:

(1) En route, if:

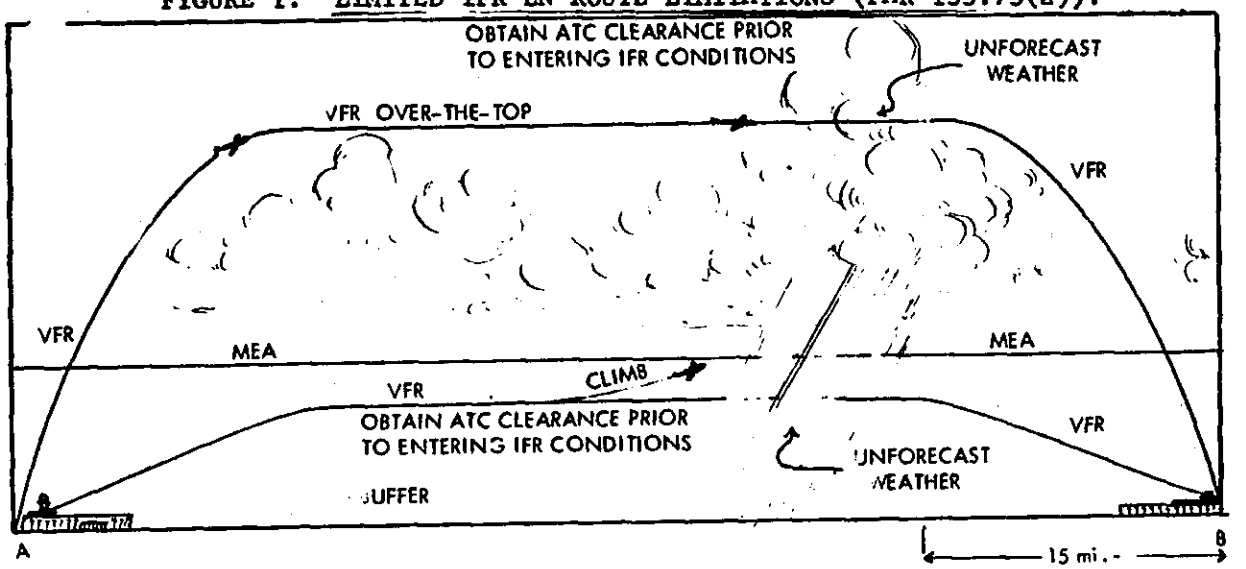
(a) He started and intended the flight to be VFR or VFR over-the-top;

(b) While en route, unforecast marginal or IFR conditions are encountered;

(c) The flight can return to VFR or VFR over-the-top operation before reaching a point within a radius of 15 miles from destination airport; and

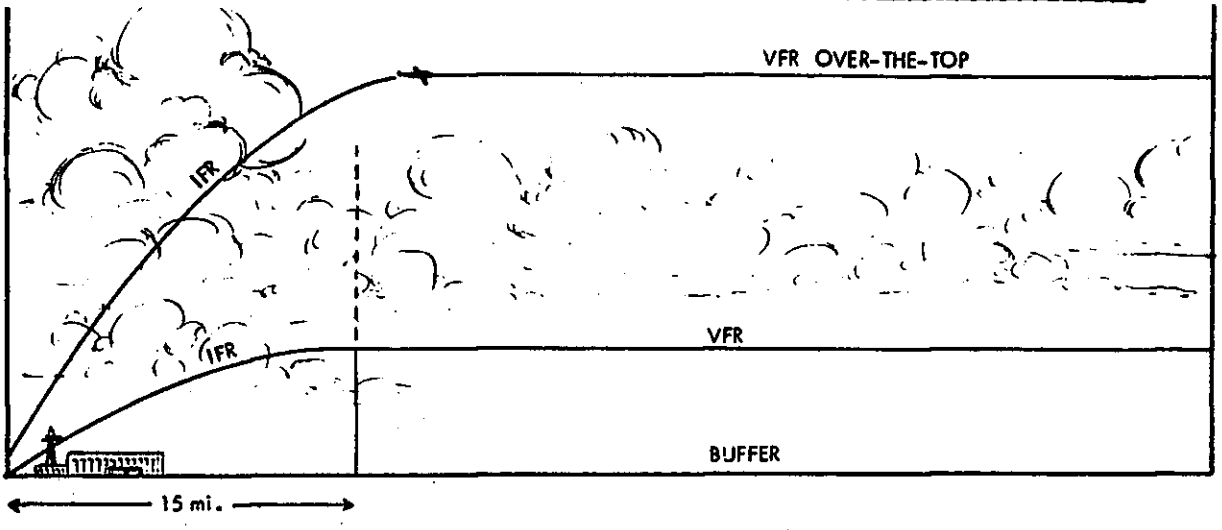
(d) A "buffer zone" exists for single-engine aircraft and multiengine aircraft which do not meet the performance requirements of FAR 135.145(a)(2).

FIGURE 1. LIMITED IFR EN ROUTE LIMITATIONS (FAR 135.75(a)).



(2) Take off from departure airport in IFR conditions and fly in IFR conditions to a point no more than 15 miles from the departure airport if weather reports and forecasts indicate that the weather along the planned flight route allows flight under VFR or VFR over-the-top requirements of this part beginning at a point no more than 15 miles from the departure airport and extending to a point within a 15-mile radius of the destination airport. VFR buffer is required after reaching a point 15 miles from departure if single-engine or multiengine airplane which does not meet performance requirements of FAR 135.145(a)(2) is being utilized.

FIGURE 2. LIMITED IFR DEPARTURE LIMITATIONS (FAR 135.75(b)(1))



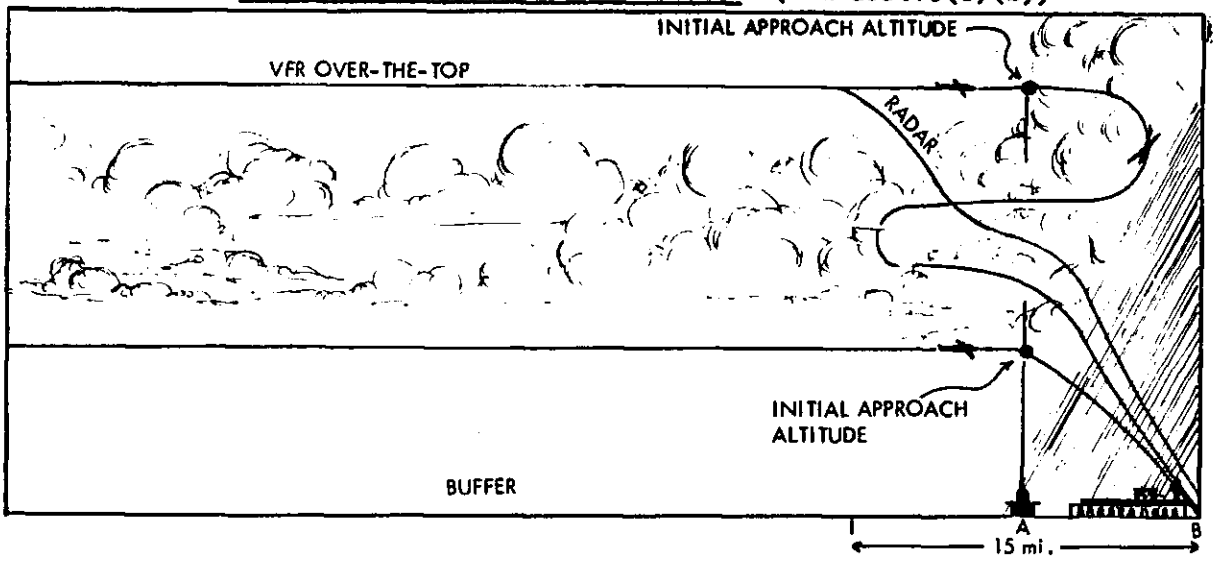
NOTE: The complete VFR weather buffer as mentioned in 18a is not required as illustrated in Figures 2, 3 and 4.

(3) Making an IFR approach and landing at the destination airport in IFR conditions if:

(a) IFR approach minimums exist, and the aircraft is clear of the clouds until reaching the prescribed initial approach altitude over the final approach facility; or

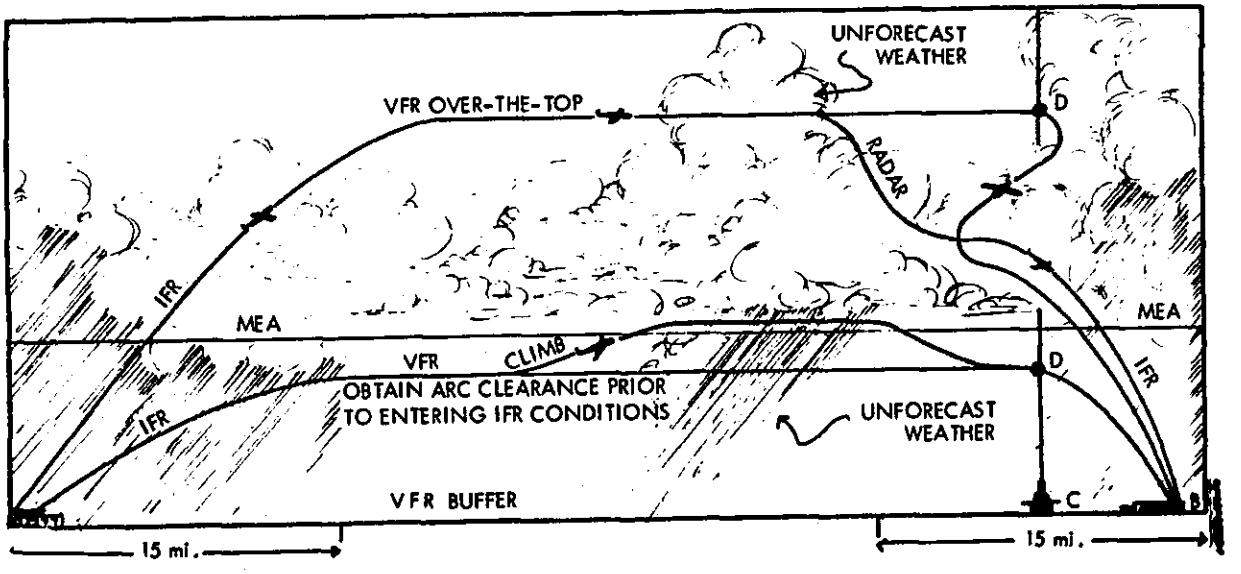
(b) The approach is made with the use of radar as provided in FAR 91.116(f).

FIGURE 3. LIMITED IFR APPROACH LIMITATIONS (FAR 135.75(b)(2))



c. A graphic display of the most adverse conditions permitted under limited IFR without a second-in-command pilot is shown in Figure 4.

FIGURE 4. TOTAL PROFILE OF LIMITED IFR (FAR 135.75(a) and (b)



19. APPROVAL FOR USE OF AN AUTOPILOT SYSTEM (FAR 135.77). When an operator applies for operations specifications authorizing the use of an autopilot system in place of a second-in-command, he is required by FAR 135.77 to show that operations using the autopilot system can be conducted safely. The showing is considered satisfactory when the requirements of FAR 135.131(c) and (g) are met during the showing, including each type of instrument approach to be authorized.

20. ICING CONDITIONS (FAR 135.85).

a. Aircraft icing conditions are defined by the National Weather Service as follows:

(1) Trace. Ice becomes perceptible. Rate of accumulation slightly greater than rate of sublimation. It is not hazardous even though deicing/anti-icing equipment is not utilized, unless encountered for an extended period of time - over one hour.

(2) Light. The rate of accumulation may create a problem if flight is prolonged in this environment (over one hour). Occasional use of deicing/anti-icing equipment removes/prevents accumulation. It does not present a problem if the deicing/anti-icing equipment is used.

(3) Moderate. The rate of accumulation is such that even short encounters become potentially hazardous and use of deicing/anti-icing equipment or diversion is necessary.

(4) Severe. The rate of accumulation is such that deicing/anti-icing equipment fails to reduce or control the hazard. Immediate diversion is necessary.

b. FAR 135.85(e) does not allow the pilot-in-command to ignore or dispute a forecast of icing conditions for the route of intended flight. If later weather reports available to pilot contain evidence which indicates that the forecast is obsolete, he may conduct the flight. However, this provision does not relieve the pilot of his responsibility to comply with the known icing conditions limitations of FAR 135.85(b) and (c).

21. VFR MINIMUM ALTITUDE (FAR 135.91). VFR minimum altitude and visibility requirements of FARs 135.91 and 135.93 are in addition to the general requirements of FAR 91.105. These minimums also provide the minimums for the VFR buffer zone when operating single-engine aircraft or multi-engine aircraft which do not meet the performance requirements of FAR 135.145(a)(2).

FIGURE 5. MINIMUM WEATHER CONDITIONS - VFR BUFFER

	CEILING	VISIBILITY
) y	1000 Feet 500 Feet	1 Mile 2 Miles 1/
' ight	1000 Feet	2 Miles
) ıntainous rea 3/	2000 Feet 2/	2 Miles

1/ T mile visibility required when ceilings are below 1000 feet.
2/ A ve highest obstacle within a horizontal distance of five miles
f m intended course.
3/ M ntainous areas are designated by the Administrator in Part 95
c the Federal Aviation Regulations.

22. VISU REFERENCE REQUIRED - HELICOPTER (FAR 135.95). For night operation adeq te visual ground light reference requirements will be met if the mete ological conditions are such as to provide a distinct horizon or ampl ground reference lights are available for control of the helicopter.

23. VFR (VER-THE-TOP CARRYING PASSENGERS - OPERATING LIMITATIONS (FAR 135.99). An a craft may be operated VFR over-the-top carrying passengers, if:

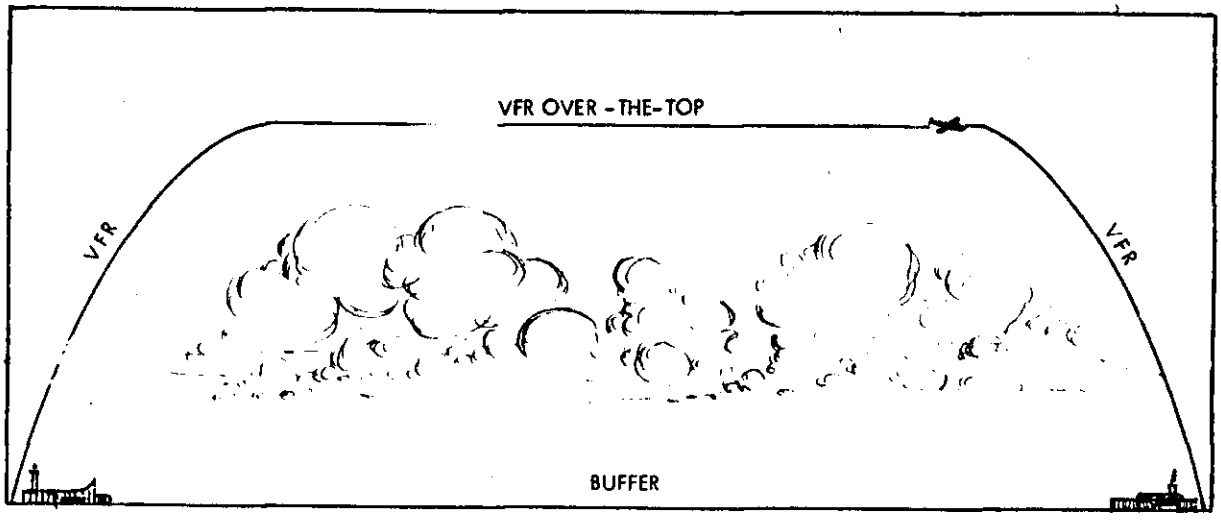
a. Weather reports and forecasts indicate that the weather at the intended point of termination of over-the-top flight allows a descent to beneath the ceiling under VFR and is forecast to remain so for at least one hour after estimated time of arrival at that point, and

(1) A multiengine airplane is used which meets the requirements of FAR 135.145(a)(2), or

(2) The pilot is the holder of an instrument rating (FAR 135.123) and

(3) A VFR buffer zone exists for single-engine aircraft and for multiengine airplanes which do not meet the requirements of FAR 135.145(a)(2).

FIGURE 6. VFR OVER-THE-TOP - EN ROUTE (FAR 135.99(a)(1)).



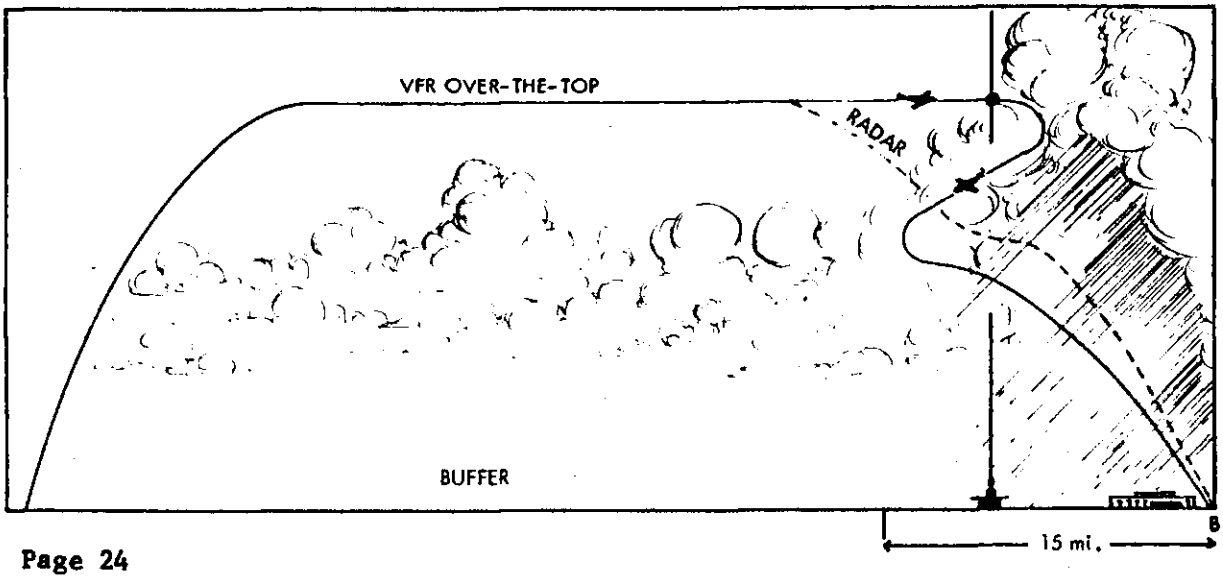
b. Weather reports and forecasts indicate that the weather at the intended point of termination of over-the-top flight allows an IFR approach and landing with flight clear of the clouds until reaching the prescribed initial approach altitude over the final approach facility unless the approach is made with the use of radar as provided in FAR 91.116(f), and

(1) The pilot is the holder of an instrument rating and meets the requirements of FAR 135.125 and 135.131, and

(2) A multiengine airplane is used which meets the requirements of FAR 135.145(a)(2), or

(3) An en route VFR buffer zone exists for single-engine aircraft and for multiengine airplanes which do not meet the requirements of FAR 135.145(a)(2).

FIGURE 7. VFR OVER-THE-TOP - EN ROUTE AND APPROACH (FAR 135.99(a)(2).

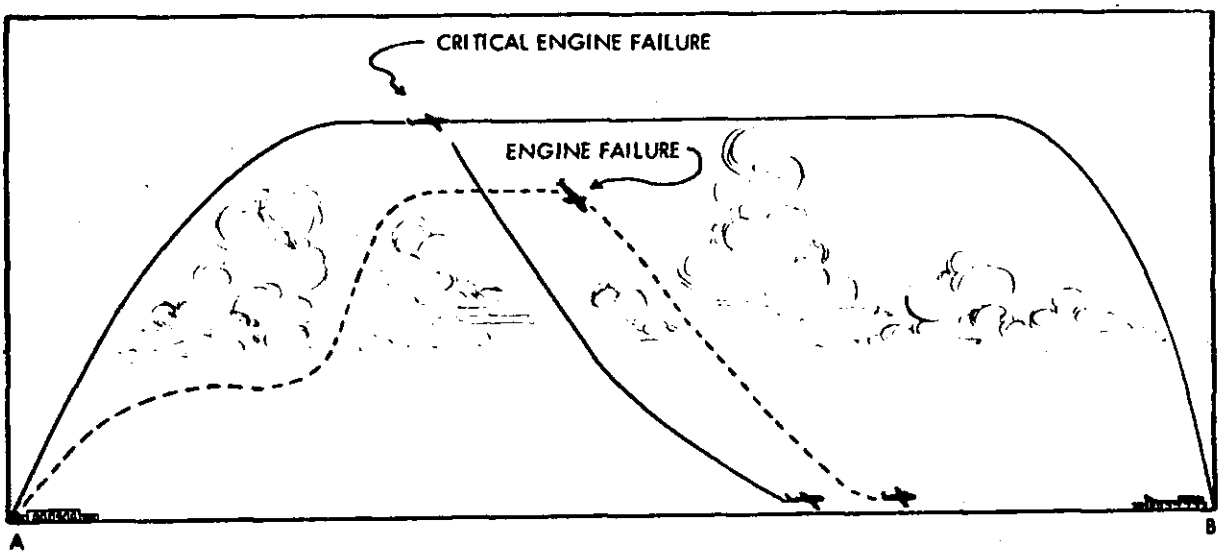


c. It is operated under conditions allowing:

(1) In the case of multiengine aircraft, descent or continuation of the flight under VFR if its critical engine fails, or

(2) In the case of single-engine aircraft, descent under VFR if its engine fails.

FIGURE 8. VFR OVER-THE-TOP - NONINSTRUMENT EQUIPPED (FAR 135.99(b)(1) and (2).



23. PILOT IN COMMAND - ROUTE AND AIRPORT QUALIFICATIONS, INSTRUMENT, INITIAL, AND RECURRENT CHECKS (FARs 135.122, 135.131, 135.138).

a. The type of instrument approach procedures to be demonstrated before use, and certified to in a letter of competency, are defined in Part 97 of the Federal Aviation Regulations and relate to the type of navigation facility upon which the procedure is established. For example: L/MF, VOR/DME, LOC, LOC(BC), LDA, NDB(ADF) and ILS.

b. The six months instrument check required by FAR 135.131 may be substituted for:

(1) The route and airport qualification flight check requirements of FAR 135.122 if the flight is conducted:

(a) in one of the types of airplanes that the pilot is assigned to fly; and

(b) over a portion of a representative airway or approved off-airway route to which the pilot may be assigned to fly.

(2) One of the class or type of aircraft flight checks required by FAR 135.138(b) if takeoffs, landings, and ground handling maneuvers are included on the check.

25. EQUIPMENT - GENERAL REQUIREMENTS (FAR 135.143(b)). Approved instrument and equipment are those which:

a. Conform to a technical standard order authorization issued to a manufacturer under Federal Aviation Regulations, Part 37, Technical Standard Order Authorization, and are appropriately marked.

b. Are accepted as a part of the aircraft on original type certification by the manufacturer under the Delegation Option Authorization, Federal Aviation Regulations, Part 21, Subpart J.

c. Are accepted as a part of the aircraft on original or supplemental type certification under Federal Aviation Regulations, Part 21, Subpart B or E.

d. Are specifically approved for the aircraft by an authorized representative of the Administrator, when not covered by procedures in subparagraph a, b and c. Examples are: FAA Designated Engineering Representative (DER) Approval; FAA Inspector field approval; Federal Aviation Regulations, Part 21, Subpart N, Approval of Engines, Propellers, Materials and Appliances: Import.

26. PERFORMANCE REQUIREMENTS - AIRCRAFT OPERATED OVER-THE-TOP OR IN IFR OPERATIONS (FAR 135.145).

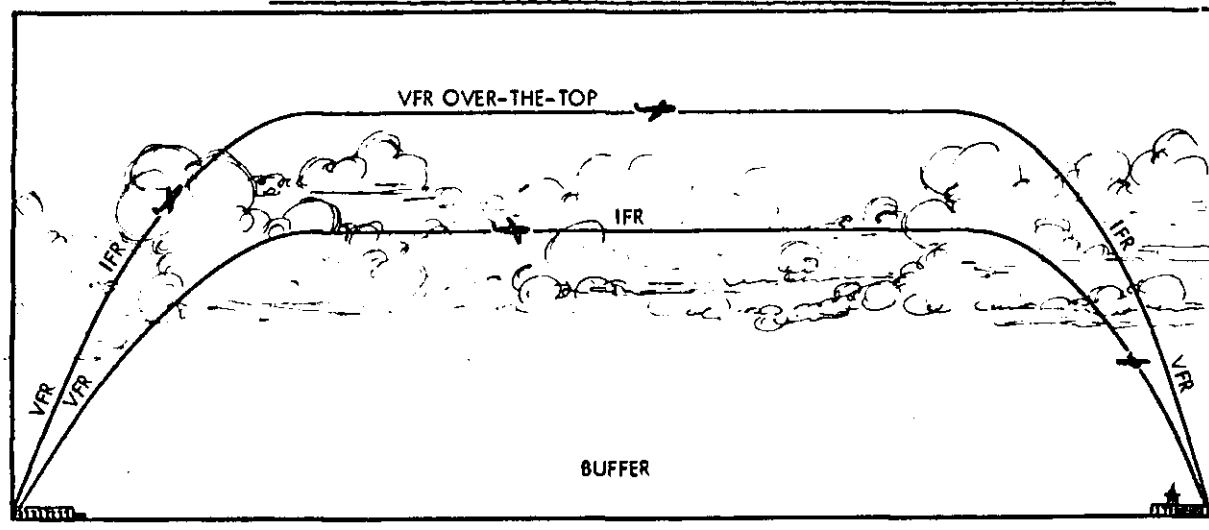
a. Multiengine airplanes which meet the single-engine performance of FAR 135.145(a)(2) may be used for IFR or over-the-top operations without regard to buffer zone. However, for other than limited IFR operation, a second-in-command pilot is required to be used unless authorization has been granted for use of an autopilot in lieu of a second pilot.

b. A single-engine airplane or multiengine airplane which does not meet the climb requirements of FAR 135.145(a)(2) may be operated in IFR conditions or over the top if:

(1) Weather reports and forecasts indicate the weather along the planned route (including takeoff and landing) allows the flight under the ceiling (VFR weather "buffer") and is forecast to remain so at every point on the route at least one hour after estimated time of arrival at the point (FAR 135.145(b)).

(2) VFR buffer includes both departure and destination airports.

FIGURE 9. IFR OR VFR OVER-THE-TOP - EN ROUTE (FAR 135.145(b)(1)).



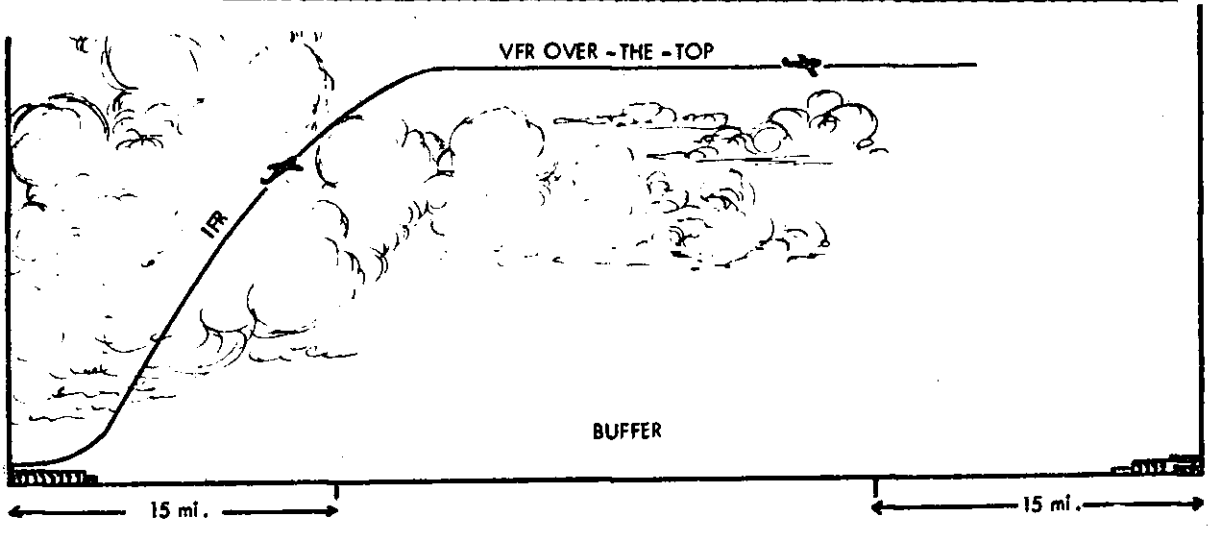
c. The pilot-in-command of a single-engine airplane or multiengine airplane which does not meet the performance requirements of FAR 135.145(a)(2) may:

(1) Take off from the departure airport in IFR conditions and fly in IFR conditions to a point no more than 15 miles from departure airport.

(2) Operate the airplane en route over-the-top if buffer zone extends from a point no more than 15 miles from departure airport to a point within 15 miles from destination airport.

NOTE: Second-in-command pilot not required for limited IFR. (FAR 135.75)
This flight cannot go all the way in IFR conditions as departure is in IFR conditions.

FIGURE 10. IFR DEPARTURE AND OVER-THE-TOP - EN ROUTE (FAR 135.145(b)(2)).



(3) Operate in IFR conditions en route if:

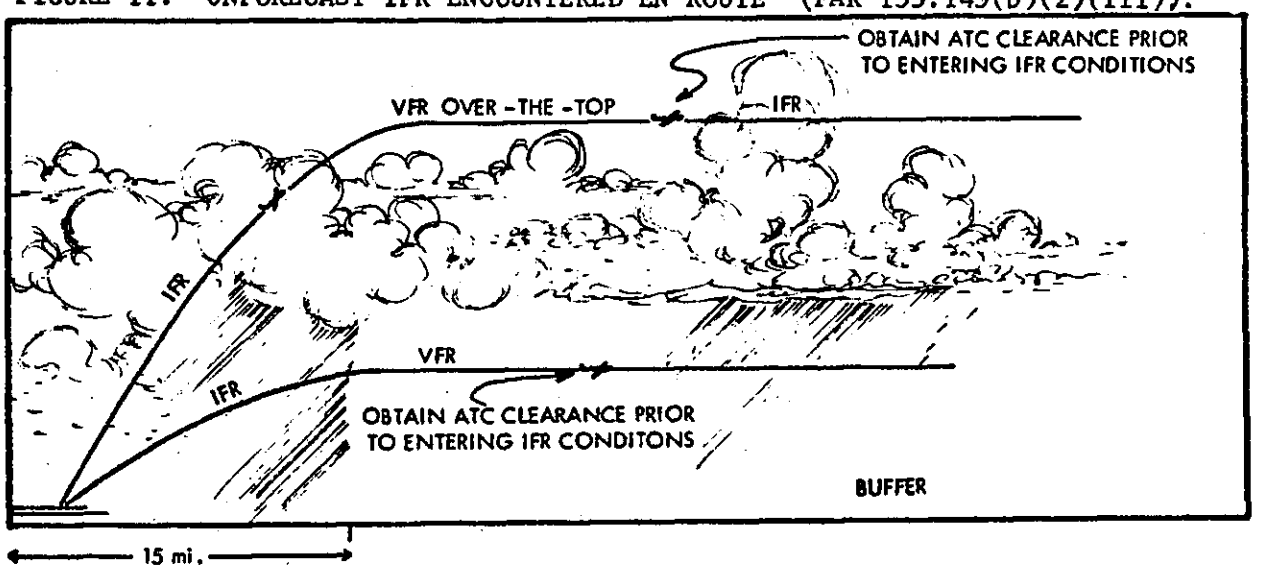
(a) Unforecast marginal VFR weather conditions are encountered while en route on a flight which was started and intended to be conducted under VFR or VFR over-the-top requirements of the part (except for limited IFR operations permitted by FAR 135.75(b)(1) and (2)).

(b) Whether reports and forecasts indicate that the flight can return to VFR or VFR over-the-top conditions before reaching a point 15 miles from destination.

NOTE: Second-in-command pilot is not required (FAR 135.75).

IFR all the way cannot be conducted as buffer zone does not include both departure and destination airport.

FIGURE 11. UNFORECAST IFR ENCOUNTERED EN ROUTE (FAR 135.145(b)(2)(iii)).



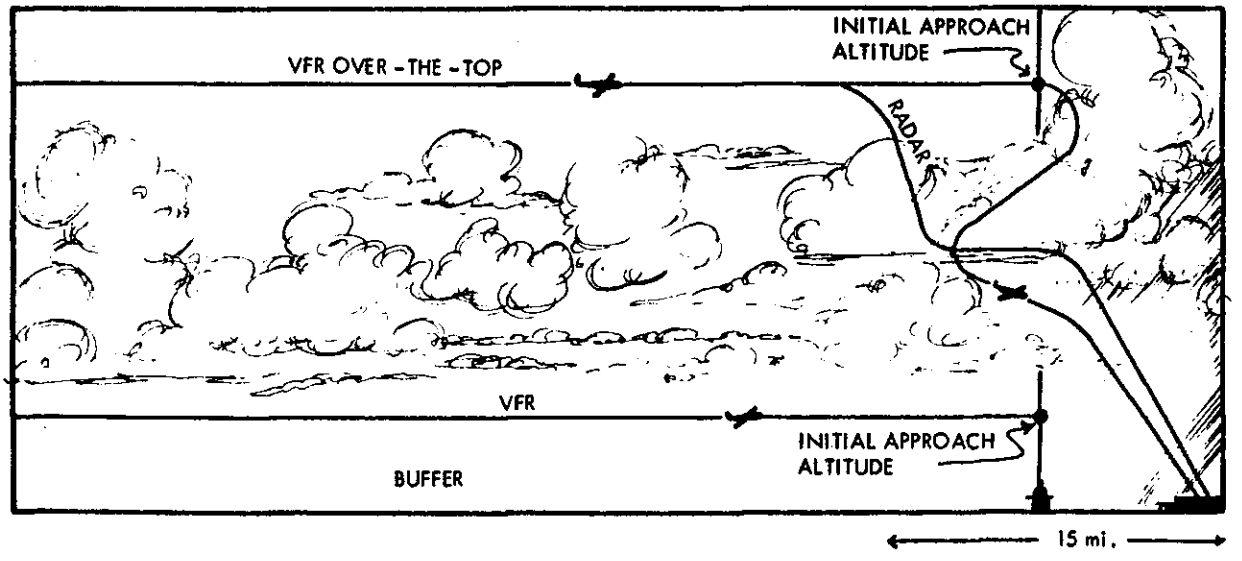
(4) Make an IFR approach and land at the destination airport in IFR conditions if:

(a) The flight is conducted clear of clouds from a point en route at least 15 miles from destination airport until reaching the prescribed initial approach altitude over the final facility, or

(b) Approach is made with use of radar (entering IFR conditions no more than 15 miles from destination airport). (FAR 135.75(b))

NOTE: Second-in-command is not required (FAR 135.75). Flight in IFR conditions all the way cannot be conducted as buffer zone does not extend over both departure and destination airports.

FIGURE 12. VFR OVER-THE-TOP EN ROUTE WITH IFR APPROACH (FAR 135.145(b)(2)(iv)).

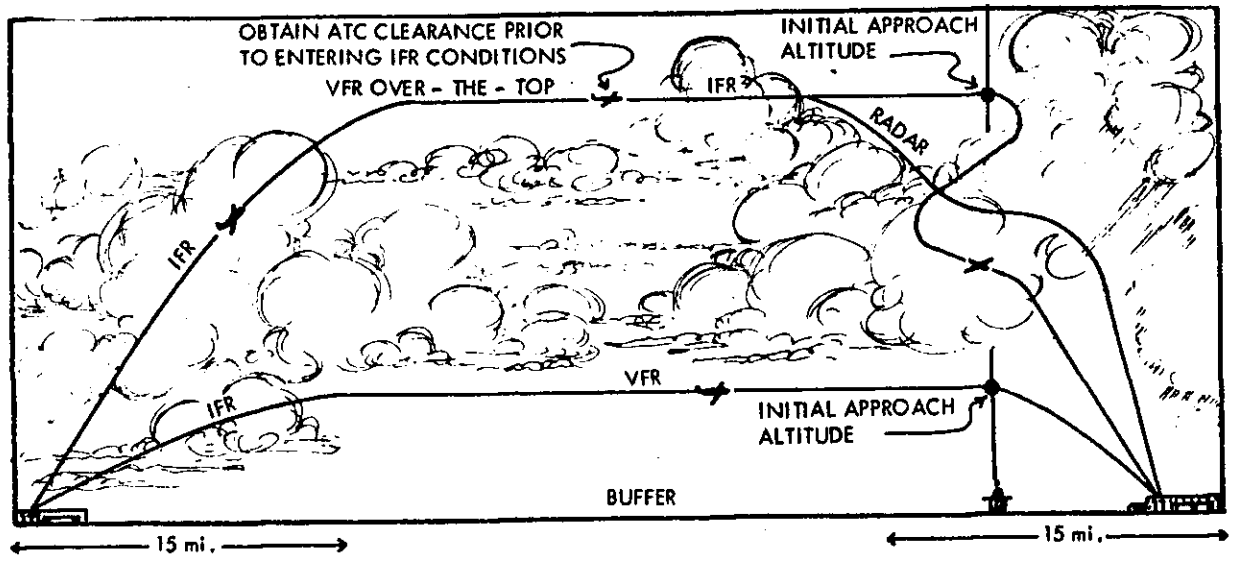


d. The pilot-in-command of a single-engine airplane or a multiengine airplane which does not meet the performance requirements of FAR 135.145(a)(2) may depart IFR, operate in limited unforecast IFR conditions en route, and make an IFR approach on the same flight, provided he adheres to conditions and limitations of FAR 135.

NOTE: Second-in-command pilot not required per FAR 135.75.

Flight in IFR conditions over entire enroute portion not permitted as buffer zone does not extend over both takeoff and destination airports.

FIGURE 13. IFR DEPARTURE - UNFORECAST IFR EN ROUTE - IFR APPROACH.



27. FIRE EXTINGUISHERS - PASSENGER CARRYING AIRCRAFT (FAR 135.161).

a. The fire extinguisher used in Air Taxi Operation must be approved and in operable condition (FAR 135.143(b). The fire extinguisher bearing an Underwriters' Laboratory approval is considered acceptable. The toxicity rating of the chemical contained in the fire extinguisher is an important consideration when selecting an extinguisher for use in confined space such as airplane cockpits. Due to the weight involved, install fire extinguishers in accordance with the acceptable methods, techniques, and practices of FAR Part 43, appropriate aircraft records. Aircraft weight and balance should be recomputed as required.

b. The toxicity ratings listed by the Underwriters' Laboratories for some of the commonly known fire extinguisher chemicals are as follows. Higher group numbers denote lower toxicity.

(1) Bromotrifluoromethane - Group 6

(2) Carbon Dioxide - Group 5

(3) Dibromodifluoromethane - Group 4

(4) Bromochloromethane - Group 3

(5) Carbon Tetrachloride - Group 3

(6) Methyl Bromide - Group 2

c. Provide adequate ventilation when fire extinguishers are discharged within the crew or passenger compartments. Dry chemical extinguishers should not be used in crew compartments because of the possibility of interference with visibility during discharge.

28. EMERGENCY EQUIPMENT FOR INTERNATIONAL FLIGHTS. The International Flight Information Manual lists emergency equipment required by foreign governments for flight in certain areas.

29. WEATHER REPORTS AND FORECASTS. An accredited observer, referred to in FAR 135.65, is the holder of a National Weather Service Certificate of Authority to Take Weather Observations (Appendix 3, Pages 2 and 3). An operator who desires to obtain such authority should submit a request for a Supplemental Aviation Weather Reporting Station to the National Weather Service Regional Office nearest his operation. The addresses of all National Weather Service Regional Offices may be found in Appendix 3, page 1.

APPENDIX 1. AIR TAXI CERTIFICATION

The following are examples of names and addresses as they should appear on FAA Form 8000-6, Items 2 and 2a, (Figure 1) and FAA Form 8430-2 (Figure 2) of this Appendix. When a business or trade name is used by an individual or a partnership, the individual or all partners shall be identified by name followed by d/b/a (the abbreviation for "doing business as") and the business or trade name used.
For example:

NAME AND ADDRESS OF APPLICANT	OPERATING AS
John J. Doe d/b/a Doro Aviation Service Municipal Airport Bayside, Virginia	Individual
John J. Doe, Allen B. Smith, and Richard R. Roe d/b/a Doro Aviation Service Municipal Airport Bayside, Virginia	Partnership
Twin Pines Aviation Company, Inc. Adams Field Little Rock, Arkansas	Corporation
Flying, Inc,, d/b/a Amos Flying Service Municipal Airport Waterville, Kentucky	Corporation

For all others, the type of organization shall be specified (i.e., company, club, association, etc.) The name shall consist of a listing of the offices or directors followed by d/b/a and the organization name used. For example:

NAME AND ADDRESS OF APPLICANT	OPERATING AS
John J. Doe, President Richard R. Roe, Secretary- Treasurer d/b/a Inlet Airways Company Municipal Airport Bayside, Virginia	Other - (Specify) "Company"
John J. Doe, President Richard R. Roe, Secretary-Treasurer Eastwell Company d/b/a Greater Aviation Municipal Airport Bayside, Virginia	Other - (Specify) "Company"

Only one certificate will be issued to any person; however, an organization may operate under more than one business name (on a single certificate) provided the certificate, FAA Form 8430-2, states the name and address of the principal business office and the name and address of other business offices that are to be used. Further, to assure that members of the public may adequately identify either organization with which it deals, the single certificate, FAA Form 8430-2, should clearly indicate that both names will be used. For example:

PRINCIPAL NAME AND BUSINESS OFFICE		OTHER NAME AND BUSINESS OFFICE
Individual		
John R. Doe d/b/a Bear Lake Lodge P.O. Box 342 West, Wisconsin	and	John R. Doe d/b/a Miami Airlines Miami Airport Miami, Florida
Partnership		
John R. Doe and Virgil L. Smith d/b/a Bear Lake Lodge P.O. Box 342 West, Wisconsin	and	John R. Doe and Virgil L. Smith d/b/a Miami Airlines Miami Airport Miami, Florida
Corporation		
Skyway Aero Service, Inc., d/b/a Skyway Aero Service, Inc. Select Field Hartshorn, Louisiana	and	Strongarm Airlines Ucome Field West, Wisconsin

The application shall be signed by an authorized officer of the "parent" organization listed in Item 2 of FAA Form 8000-6.

If the mailing address differs from the exact location of the principal business office, Item 2 of FAA Form 8000-6 should be completed as follows:

NAME AND BUSINESS OFFICE	MAILING ADDRESS
John R. Doe d/b/a Bear Lake Lodge Bear Lake Airport West, Wisconsin	John R. Doe d/b/a Bear Lake Lodge P.O. Box 342 West, Wisconsin

The following is used, when applicable, to identify the individual signing the application, FAA Form 8000-6; when signing for receipt of Form FAA 1014, Operations Specifications; and when signing the application portion of Form FAA 1014, in application for an amendment to existing operations specifications. The information shall be typed on the title line under the signature as follows:

Individual	Owner, Doro Aviation Service
Partnership	Partner, Doro Aviation Service
Corporation	President, Vice President, or Secretary-Treasurer, Twin Pines Aviation Company, Inc.
Other	President or Secretary-Treasurer, Inlet Airways Company

By reason of the geographical separation of the 48 contiguous states from the States of Alaska and Hawaii, the following are examples pertaining to Item 8, AREA OF OPERATION, on FAA Form 8000-6, and the corresponding FAA authorized AREA OF OPERATION to be shown on the Operations Specifications, Form FAA 1014:

FOR OPERATIONS IN A SPECIFIC AREA OR STATE

1. An operator applying to operate within the State of Alaska.

   a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

      [X] Specific Areas
      ALASKA

   b. Operations Specifications - Form FAA 1014

      AREA OF OPERATION
      ALASKA

2. An operator applying to operate within the State of Hawaii.

   a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

      [X] Specific Areas
      HAWAII

   b. Operations Specifications - Form FAA 1014

      AREA OF OPERATION
      HAWAII

3. An operator applying to operate within the State of Arizona.

a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

/X/ Specific Areas
ARIZONA

b. Operations Specifications - Form FAA 1014

AREA OF OPERATION
ARIZONA

FOR OPERATIONS WITHIN THE 48 CONTIGUOUS STATES AND THE STATE OF ALASKA AND TO AND FROM CANADA

1. An operator based in the 48 contiguous States or the State of Alaska applying to operate within or between the 48 contiguous States and Alaska.

a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

/X/ Continental
United States

/X/ International
Canada

b. Operations Specifications - Form FAA 1014

AREA OF OPERATION
Continental United States and Canada

NOTE: This would require Canadian authorization in order to overfly or land in Canada enroute.

FOR OPERATIONS WITHIN THE 48 CONTIGUOUS STATES

1. An operator applying to operate solely within the 48 contiguous States.

a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

/X/ Continental United States
excluding Alaska

b. Operations Specifications - Form FAA 1014

AREA OF OPERATION
Continental United States exkluding Alaska

FOR OPERATIONS WITHIN THE 48 CONTIGUOUS STATES AND TO AND FROM CANADA OR MEXICO

1. An operator applying to operate within the 48 contiguous States and to and from Canada or Mexico.

   a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

   [X] Continental United States excluding Alaska

   [X] International
   Canada
   Mexico

   b. Operations Specifications Form FAA 1014

   AREA OF OPERATION

   Continental United States excluding Alaska.
   Countries of Canada and Mexico

FOR OPERATIONS WITHIN OR BETWEEN THE 48 CONTIGUOUS STATES AND THE STATE OF ALASKA, AND TO AND FROM CANADA, MEXICO, PUERTO RICO, NICARAGUA, AND GUATEMALA

1. An operator based in either the 48 contiguous States or the State of Alaska applying to operate within and between the 48 contiguous States and the State of Alaska, and to and from Canada, Mexico, Puerto Rico, Nicaragua, and Guatemala.

   a. Application - FAA Form 8000-6, Item 8 AREA OF OPERATION

   [X] Continental
   United States

   [X] International
   Canada
   Mexico
   Puerto Rico
   Nicaragua
   Guatemala

   b. Operations Specifications - Form FAA 1014

   AREA OF OPERATION

   Continental United States and the countries of Canada, Mexico, Puerto Rico, Nicaragua, and Guatemala

TERRITORIES AND POSSESSIONS OF THE UNITED STATES

1. American Samoa
2. Bonin - Volcano Islands - Marcus (Navy)
3. Guam
4. Marshall, Caroline, and Mariana Islands
5. Canal Zone and Panama Canal
6. Puerto Rico
7. Ryukyu Islands
8. Virgin Islands (St. Thomas, St. John, St. Croix)
9. Baker, Howland, Jarvis, Johnston, Sand Kingman Reef, Midway, Palmyra, and Wake Islands

CATEGORIES AND CLASSES OF AIRCRAFT AND OPERATING CONDITIONS

Listed below are examples of categories and classes of aircraft and operating conditions that may be shown as operations specifications. (Other combinations of individual listings of categories and classes of aircraft and operating conditions that are authorized by Federal Aviation Regulations Part 135 may be arranged in a similar manner).

Airplane Single-Engine Land: VFR Day and Night, Passengers and Cargo
Airplane Single-Engine Land: VFR and IFR Day and Night, Passengers and Cargo
Airplane Single-Engine Land: VFR Day and Night, Cargo Only
Airplane Single-Engine Land: IFR Day and Night, Cargo Only

Airplane Single-Engine Land and Sea: VFR Day, Passengers and Cargo

Airplane Multiengine Land: VFR and IFR Day and Night, Passengers and Cargo
Airplane Multiengine Land: VFR Day and Night, Cargo Only

Airplane Multiengine Land and Sea: VFR Day, Passengers and Cargo

Helicopter: VFR, Day and Night, Passengers and Cargo

Figure 1

DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION
APPLICATION FOR AIR TAXI COMMERCIAL OPERATOR (ATCO) CERTIFICATE UNDER FAR 135

Form Approved: Budget Bureau No. 04-R0171

Submit in triplicate (3) to appropriate FAA District Office.

1. APPLICATION IS HEREBY MADE FOR ("X" applicable box)
[X] ISSUANCE [ ] AMENDMENT OF ATCO CERTIFICATE

2. NAME AND ADDRESS OF APPLICANT
(See pages 1 & 2 of this Appendix)

(If additional space is necessary, attach separate sheet.)

ZIP CODE:

2a. OPERATING AS (See pages 2 & 3 of the Appendix)
[ ] INDIVIDUAL [ ] PARTNERSHIP [ ] CORPORATION
[ ] OTHER (Specify):

	YES	NO
2b. U S CITIZENSHIP AS DEFINED IN FAR 135	X	
2c. HOLD CAB ECONOMIC/EXEMPTION AUTHORITY		X
2d. HOLD A COMMERCIAL OPERATING CERTIFICATE (If "Yes," state Regulation(s) under which issued):		X

3. PRINCIPAL OPERATIONS BASE (Airport, City, State)
Municipal Airport, Bayside, Virginia

4. PRINCIPAL MAINTENANCE BASE (Airport, City, State)
Municipal Airport, Bayside, Virginia

5. NAME OF [ ] OPERATIONS MANAGER OR [X] CHIEF PILOT
John R. Ike
PHONE (Incl. area code): 703-999-1672

6. NAME OF [ ] MAINTENANCE SUPERVISOR OR [ ] CHIEF MECHANIC
A.B. Brown
PHONE (Incl. area code): 703-999-1674

7. OPERATION AUTHORIZATIONS REQUESTED ("X" applicable items)

AIRCRAFT CATEGORY AND CLASS	CARRYING		VFR		IFR		
	PASS.	CARGO	DAY	NIGHT	DAY	NIGHT	OFF AIRWAYS
AIRPLANE—SINGLE ENGINE LAND	X	X	X	X	X	X	
AIRPLANE—MULTI ENGINE LAND	X	X	X	X	X	X	X
AIRPLANE—SINGLE ENGINE SEA							
AIRPLANE—MULTI ENGINE SEA							
HELICOPTER	X	X	X	X			

OTHER (Specify) IFR Route outside controlled airspace between Emporia and Richmond, Va., is requested.

8. ARE FOR OPERATION
[ ] UNITED STATES
[ ] SPECIFIC AREAS
[X] INTERNATIONAL (List Countries)
Continental "Canada"

9. AIRCRAFT TO BE USED (List one aircraft only in each category and class)

REGISTRATION NUMBER	MAKE	MODEL	CATEGORY AND CLASS	OWNERSHIP ("X" one)		EQUIPPED FOR ("X" applicable items)			
				OWNED	AGREEMENT OR LEASE (Attach copy)	VFR		IFR	
						DAY	NIGHT	DAY	NIGHT
N567A	Piper	PA-28	ASEL	X		X	X	X	X
N768P	Beechcraft	BE-95	AMEL	X		X	X	X	X
N65C	Bell	206	Helicopter, SEL		X	X	X		

10. CERTIFICATION — I certify these statements and the attachments hereto are true and correct.
SIGNATURE OF APPLICANT: /s/ Allen B. Smith
TITLE: (see page 3 of this Appendix)
DATE: Sept. 1, 1973

RECORD OF ACTION—FOR FAA USE ONLY

11. INSPECTOR'S RECOMMENDATIONS

12. INSPECTORS' SIGNATURES	OPERATIONS	MAINTENANCE	AVIONICS

13. APPROVAL ACTION

		COMMENTS		
	APPROVED. CERTIFICATE NO. ISSUED			
	DISAPPROVED	SIGNATURE	TITLE	DATE

FAA Form 8000-6 (4-68)

FIGURE 2. FEDERAL AVIATION ADMINISTRATION OPERATING CERTIFICATE

THE UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

OPERATING CERTIFICATE

No. [illegible] EA-2

This certifies that John [illegible] d/b/a
Doro Aviation Service
Municipal Airport
Bayside, Virginia

has met the requirements of the Federal Aviation Act of 1958, as amended, and the rules, regulations, and standards prescribed thereunder for the issuance of this certificate, and is hereby authorized to operate as

AIR TAXI/COMMERCIAL OPERATOR

in accordance with said Act and the rules, regulations, and standards prescribed thereunder, and the terms, conditions, and limitations contained in the operations specifications.

This certificate is not transferable and, unless sooner surrendered, suspended or revoked, shall continue in effect until otherwise terminated by order of the Administrator.

Effective date: April 1, 1974

By Direction of the Administrator

Issued at: EA-GADO-16
Richmond, Virginia

E. C. Hedrick
(Signature)

(Chief, EA-GADO-16)
(Title)

FAA FORM 8430-2 (10-67) FORMERLY FAA FORM 1603

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved.
OMB No. 04-R0075

OPERATIONS SPECIFICATIONS

John J. Doe d/b/a Dáro Aviation Service is authorized to conduct air taxi operations as an air carrier engaged in air trasportation or commercial operation as a commercial operator utilizing aircraft of 12,499 pounds or less maximum certificated takeoff weight in accordance with the applicable provisions of Federal Aviation Regulations Part 135, other FARs, and the terms, conditions, and limitations contained herein.

Operations are authorized in the following categories and classes of aircraft under the conditions and within the area of operations authorized.

Airplane Single-Engine Land, VFR Day and Night, Passengers and Cargo

Airplane Multiengine Land, VFR and IFR Day and Night, Passengers and Cargo

Helicopter, VFR Day and Night, Passengers and Cargo

AREA OF OPERATION

Continental United States and Canada

OTHER AUTHORIZATIONS

IFR operations over routes outside controlled airspace are authorized as follows:

Richmond VOR Direct Emporia NDB (and reverse course)

Effective date _____

FAA Form 1014 (2-72)

FEDERAL AVIATION ADMINISTRATION
Washington, D. C.

Operating Certificate No. 16-EA-2

John J. Doe d/b/a Doro Aviation Service hereby makes application for amendment of the Operations Specifications appearing on the reverse side hereof, as follows:

Reasons and supporting data (if insufficient space attach additional page):

The operator shall complete the upper portion ONLY when applying for an amendment to currently effective operations specifications. The operator will complete the reverse side of this form with the wording desired. (Conference with certificating district office is desirable for appropriate wording.)

I CERTIFY that the statements submitted in connection herewith are true and that I am duly authorized to make this application on behalf of the applicant.

(Signature)

Date ..... (Title)

INSPECTOR'S RECOMMENDATIONS:

(Signature)

(Title)

The Operations Specifications set forth on the reverse side hereof are .....

Amendment No. .....

Effective date .....

Supersedes specifications dated .....

By direction of the Administrator:

(Signature)

(Title)

Received for the applicant by:

(Signature)

Date ..... (Title)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved.
OMB No. 04-R0075

OPERATIONS SPECIFICATIONS

John J. Doe d/b/a Doro Aviation Service is authorized to conduct air taxi operations as an air carrier engaged in air transportation or commercial operation as a commercial operator utilizing aircraft of 12,499 pounds or less maximum certificated takeoff weight in accordance with the applicable provisions of Federal Aviation Regulations Part 135, other FARs, and the terms, conditions and limitations contained herein.

Operations are authorized in the following categories and classes of aircraft under the conditions and within the area of operations authorized.

Airplane Single-Engine Land, VFR Day and Night, Passengers and Cargo

Airplane Multiengine Land, VFR and IFR Day and Night, Passengers and Cargo

Helicopter, VFR Day and Night, Passenger and Cargo

AREA OF OPERATION

Continental United States and countries of Canada and Mexico

OTHER AUTHORIZATIONS

IFR operations over routes outside controlled airspace are authorized as follows:

Richmond VOR Direct Emporia NDB (and reverse course)

Record Keeping Requirements

The operator is authorized to keep the completed load manifest, required by section 135.43(d) of the FAR's, at its Boeing Field, Seattle Washington office for those flights conducted by Seattle assigned crews and aircraft.

Autopilot Authorization

Use of an autopilot ("ABC" Model 123) installed in Beechcraft BE-95 N768P is authorized in lieu of second pilot when passengers are carried under IFR or in actual IFR weather contions, and the pilot holds a current Statement of Competency Letter for instrument flight using autopilot.

Effective date Sept. 24, 1974

FAA Form 1014 (8-72)

1/16/75

FEDERAL AVIATION ADMINISTRATION — Operating Certificate No. 16 EA-2

Washington, D. C.

John J. Doe d/b/a Doro Aviation Service hereby makes application for amendment of the Operations Specifications appearing on the reverse side hereof, as follows:

Request authorization to conduct international operations into Mexico. Request authorization to use an autopilot in lieu of second pilot when carrying passengers in IFR operations.

Request autorization to keep copies of completed load manifests at our Boeing Field Seattle, Washington base.

Reasons and supporting data (if insufficient space attach additional page):

Desire to expand existing operations for reason of several recent request for air taxi service into Mexico.

The airplane, Beechcraft BE-95, N768P, is equipped for IFR operations, including an autopilot, in accordance with Federal Aviation Regulations Part 135. The autopilot, an "ABC" Model 123, was installed and approved by the Beechcraft factory. Pilots John R. Ike and Richard R. Roe will be used in this operation.

Management control requires the completed load manifests be retained and available in our Seattle office files on flights conducted by the three flight crews on the two aircraft assigned to that location.

I CERTIFY that the statements submitted in connection herewith are true and that I am duly authorized to make this application on behalf of the applicant.

(to be signed by applicant)
(Signature)

Date September 9, 1974 — (See Appendix 1, page 3)
(Title)

INSPECTOR'S RECOMMENDATIONS:

(Signature)

(Title)

The Operations Specifications set forth on the reverse side hereof are approved

Amendment No. One — By direction of the Administrator:

Effective date September 24, 1974 — E.C. Hedrick
(Signature)

Supersedes specifications dated April 1, 1974 — Chief, EA-GADO-16
(Title)

Received for the applicant by:

/s/
(Signature)

Date September 20, 1974 — Appendix 1, page 3
(Title)

APPENDIX 2. PILOT PROFICIENCY

AIRMAN PROFICIENCY/QUALIFICATION CHECK

DATE OF CHECK: 10 January 1974
LOCATION: Richmond, Virginia
NAME OF AIRMAN (Last, first, middle initial): Ike, John R.
TYPE OF CHECK: FAR 135 6 month instrument
EMPLOYED BY: Doro Aviation Service
BASED AT (City and State): Bayside, Virginia
TYPE AIRCRAFT/SIMULATOR USED: Beechcraft BE-95
NAME OF CHECK AIRMAN:
BLOCK TIME: 1:20

FLIGHT MANEUVERS GRADE (S–Satisfactory U–Unsatisfactory)

PILOT S – SATISFACTORY U – UNSATISFACTORY W – WAIVER (See Appendix F to 121)	AIR-CRAFT	SIMU-LATOR
PREFLIGHT		
1. EQUIPMENT EXAMINATION (Oral or written)	S	
2. * PREFLIGHT INSPECTION	S	
3. TAXIING	S	
4. POWERPLANT CHECKS	S	
TAKEOFFS		
5. NORMAL	S	
6. INSTRUMENT	N/A	
7. CROSSWIND	S	
8. WITH SIMULATED POWERPLANT FAILURE	S	
9. * REJECTED TAKEOFF	S	
INSTRUMENT PROCEDURES		
10. * AREA DEPARTURE	S	
11. * HOLDING	S	
12. * AREA ARRIVAL	S	
13. ILS APPROACHES	S	
14. OTHER INSTRUMENT APPROACHES	S	
15. CIRCLING APPROACHES	S	
16. MISSED APPROACHES	S	
INFLIGHT MANEUVERS		
17. * STEEP TURNS	S	
18. * APPROACHES TO STALLS	S	
19. * SPECIFIC FLIGHT CHARACTERISTICS	S	
20. POWERPLANT FAILURE	S	
LANDINGS		
21. NORMAL	S	
22. FROM AN ILS	S	
23. CROSSWIND	S	
24. WITH SIMULATED POWERPLANT(S) FAILURE	S	
25. REJECTED LANDING	S	
26. FROM CIRCLING APPROACH	S	
27. NORMAL AND ABNORMAL PROCEDURES	S	
28. EMERGENCY PROCEDURES	S	
29. JUDGEMENT	S	
30. HOVERING MANEUVERS	N/A	
31. RAPID DECELERATIONS (Quick stops)	N/A	
32. AUTOROTATIONS (Single engine helo. only)	N/A	

Items that may be waived are indicated by an asterisk (*)
See Appendix F to FAR 121. All applicable items must be graded S, U or W. N/A for FAA FAR 135 Operation

FLIGHT ENGINEER ITEM	S	U
1. EQUIPMENT EXAM (Oral) (Written)		
2. PREFLIGHT CHECK OF AIRCRAFT		
3. COMPUTATION OF FUEL LOAD & FUEL LOADING PROCEDURE		
4. COMPLETION OF COMPANY APPROVED FORMS		
5. STARTING, TAXI, AND RUNUP		
6. POWERPLANT AND PROPELLER CONTROL		
7. CRUISE CONTROL AND COMPUTATIONS		
8. AIRCRAFT/POWERPLANT OPERATION ANALYSIS		
9. FUEL SYSTEM MANAGEMENT		
10. AIR CONDITION & PRESSURIZATION CONTROL		
11. ELECTRICAL SYSTEM OPERATION		
12. POWERPLANT FIRE CONTROL		
13. EMERGENCY GEAR AND FLAP EXTENSION		
14. HEATER FIRE AND CARGO COMPARTMENT FIRE		
15. SMOKE EVACUATION		
16. EMERGENCY DEPRESSURIZATION		
17. FUEL DUMPING PROCEDURE		
18. POWERPLANT SHUTDOWN AND RESTART		
19. DEICING AND ANTI-ICING		
20. LOCATION AND USE OF EMERGENCY EQUIPMENT		
21. EMERGENCIES-HYDRAULIC, PRESSURIZATION, ETC.		
22. CREW COORDINATION AND MONITORING		

REMARKS

Satisfactorily Demonstrated ILS, LOC(BC) VOR, NDB(ADF) approaches using an autopilot

Flight conducted over a portion of authorized off-airway route Richmond to Emporia

RESULT OF CHECK		CHECK AIRMAN'S PERFORMANCE	
	X APPROVED		SATISFACTORY
	DISAPPROVED		UNSATISFACTORY

REGION	DISTRICT OFFICE	INSPECTOR'S SIGNATURE
Eastern	EA-GADO-16	/s/ Henry J. Jones

FAA Form 8410-1 (4-67) SUPERSEDES FAA FORM 3111 WHICH IS OBSOLETE FAA AC 67-6463 C

STATEMENT OF COMPETENCY LETTER

STATEMENT OF COMPETENCY LETTER

General Aviation District Office
456 Parkwater Road
Bayside, Virginia 20030

10 January 1970

Mr. John R. Ike
123 Fulton Street
Bayside, Virginia 20030

STATEMENT OF COMPETENCY

This is to certify that John R. Ike 123 Fulton Street, Bayside, Virginia, 20030, holder of Commercial Pilot Certificate No. 356829 has on this date satisfactorily demonstrated his ability to pilot Beechcraft BE-95 aircraft in instrument flight using an autopilot in lieu of a second pilot in accordance with Federal Aviation Regulations 135.77 and 135.131(g).

The following instrument approach procedures were satisfactorily demonstrated and are authorized for use: ILS, LOC(BC), VOR, NDB(ADF).

/s/ Henry J. Jones
General Aviation Operations Inspector
EA-GADO-16

This authorization expires 31 July 1970
6 calendar months

APPENDIX 3. WEATHER INFORMATION

ADDRESS LIST OF NATIONAL WEATHER SERVICE REGIONAL OFFICES

Director, National Weather Service Eastern Region
585 Stewart Avenue
Garden City, New York 11530

Director, National Weather Service Southern Region
Room 10E09
819 Taylor Street
Ft. Worth, Texas 76102

Director, National Weather Service Central Region
Room 1836
601 East 12th Street
Kansas City, Missouri 64106

Director, National Weather Service Western Region
Box 11188
Federal Building
125 South State Street
Salt Lake City, Utah 84111

Director, National Weather Service Alaskan Region
632 6th Avenue
Anchorage, Alaska 99501

Director, National Weather Service Pacific Region
P.O. Box 3560
Honolulu, Hawaii 96811

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

Certificate of Authority to take Weather Observations

This is to certify that
is qualified and authorized to take weather observations, subject to the conditions stated in the Weather Service Operations Manual.

George P. Cressman
Director, National Weather Service

Certificate No.

Date

Regional Director

Certificate of Authority to Take Weather Observations -
(WS Form B-19) (face of certificate)

CERTIFICATION OF OBSERVERS

Important Notice To Holder

The holder of this certificate is responsible for maintaining its validity by:

1. Taking, and recording on the official station observational log, each of the types of observations for which the certificate is valid, at least once every 90 days.
2. Forwarding it to the Weather Service Regional Headquarters for a change in validation within 45 days of his entry on duty at a station for which the certificate has not been validated.
3. Forwarding it to the new Regional Headquarters or Supervising Weather Service Office within 45 days of his entry on duty in a new Weather Service Region. A new certificate will be issued by the new Regional Headquarters.

Failure to comply with any of the above requirements automatically invalidates this certificate whether or not the certificate is so annotated. Certain Weather Service Meteorologist and Meteorological Technicians are exempted from the above items by WSOM Chapter B-61.

If your certificate has become invalid, you are no longer authorized to take official weather observations and you must immediately notify the Regional Headquarters or Supervising office of this fact so that the validity can be reinstated. A certificate is automatically cancelled if it has been invalid for 60 consecutive days.

Keep this certificate at your duty station at all times. If you display it in a frame, under glass, etc., the front and back must be readily accessible for inspection.

VALIDATION				
DATE	LOCATION	TYPE OF OBSERVATIONS	ACTION	INITIALS

Certificate of Authority to Take Weather Observations - (WS Form B-19) (reverse side of certificate)

APPENDIX 4. OPERATOR'S MANUAL OUTLINE

PREFACE

Does this section inform the reader that the Manual is a necessary management tool for the use and guidance of all company flight and ground operations and maintenance personnel in conducting an orderly and safe operation?

REVISION

Are the procedures adequate to assure compliance with the operator's responsibility to keep the Manual current and the holders responsibility to keep it up-to-date with the changes and additions furnished? Is a means provided to readily identify revisions, i.e., date of last revision on each page?

INDEX

Is it a complete, concise, easy to use reference to the contents of the Manual?

I. Company Organization.

Is each individual in a management capacity identified with respect to his authorization to act, for the certificate holder, in his assigned areas of responsibility?

II. Company Procedures and Policy.

Does this section contain sufficient detail to provide the necessary guidance to enable each employee to carry out his assigned duties and responsibilities and conduct himself in accordance with the desired company policy? Does it assure the operator that his responsibility for compliance with the regulations will be fulfilled?

III. Operations Specifications.

If copies of the operations specifications are not used, does the extracted information meet the regulatory requirement? If deviations, exemptions or petitions for reconsideration have been authorized are they included?

IV. Accident Notification Procedures.

Does the procedure ensure the operator that he will be immediately notified and furnished information in sufficient detail to comply with the accident, incident and overdue aircraft notification requirements of the National Transportation Safety Board Investigation Regulation Part 430?

V. Flight Locating Procedures.

Are the established procedures adequate to ensure compliance with the flight locating requirements of FAR 135.29 for each flight for which an FAA flight plan is not filed?

VI. Enroute Qualification.

Does this section provide a method of scheduling to ensure compliance with the initial and recurrent testing? Are the approved check pilots, if appropriate, identified? Is a recording procedure provided?

VII. Emergency Procedures.

Is information provided to define the duties and responsibilities of the operator, flight and ground crews during emergencies? Does it ensure compliance with the operator and pilot in command emergency operations and reporting requirements of FAR 135.7?

VIII. Weight and Balance Procedures.

Are the procedures adequate to ensure compliance with the aircraft weight and balance limitations of each individual make, model and type aircraft operated? Do they provide for calculated values established by actual weighing of multiengine aircraft within the preceding three years? (Refer to paragraph 8a of this AC)

IX. Airworthiness Inspections.

Do the procedures ensure that the pilot in command can determine:

1. That the required airworthiness inspections have been made? (Ref. 8c(1)) and;

2. That the aircraft has been approved for return to service? (Ref. 8c(3).

X. Mechanical Irregularities.

1. Reporting:

Is the pilot in command provided with a reporting system to inform the operator of aircraft mechanical irregularities or defects tha. come to his attention during flight time or during preflight inspections (Ref. 8d) and

2. Correction.

Can the pilot in command easily determine the current aircraft airworthiness status resulting from corrective action taken on previously reported mechanical irregularities or defects? (Ref. 8e)

XI. Procedures for Obtaining Service and Maintenance.

Does this section clearly define who is authorized to obtain maintenance, preventative maintenance and servicing, where it may be obtained, and to what extent? (Ref. 8g)

XII. Refueling Procedures.

Are ground and flight personnel provided with adequate information, pertinent to the specific operation, for the elimination of fuel contamination, protection from fire, and passenger protection and supervision during refueling? (Ref. 8h)

XIII. Approved Aircraft Inspection Program.

When applicable, refer to paragraph 16 of this Advisory Circular.

XIV. Distribution.

Does the method of distribution ensure that the manual or appropriate portions (and amendments) will be received by the operators ground operations personnel, crewmembers, representatives of the Administrator and made available to maintenance personnel? Does it ensure that the manual or appropriate parts will be available for use of ground and flight personnel on each aircraft when away from the principal base?

APPENDIX 5.

PILOT TRAINING CURRICULUM OUTLINE

Operator
Date

Course Title: Pilot Training Program

PURPOSE: Does this paragraph establish the purpose as that of providing a standardized program to train each pilot, initially and on a recurrent frequency, for proficiency in procedures, techniques and information essential to the satisfactory performance in the operations to which he is assigned. To enable each pilot to pass the knowledge and practical tests required by Part 135 of the Federal Aviation Regulations.

PHASE: Initial and Recurrent Ground Training

I. REFERENCE AND STUDY MATERIAL (Furnished by the operator)

(a) Operator's Manual

(b) Company operations specifications

(c) Parts 61, 91 and 135 of the Federal Aviation Regulations

(d) Aircraft equipment manuals, approved aircraft flight manual or owner's handbook.

(e) Airmen's Information Manual and if foreign operations authorized, the International Flight Information Manual

(f) Adequate charts and approach plates pertinent to the assigned VFR and IFR operations.

II. SUBJECTS

Is the training adequate, commensurate with the pilots qualification and experience, to ensure his passing the required written or oral test of knowledge in the following:

(a) Federal Aviation Regulations

(b) For each type aircraft to be flown:
(1) Powerplant
(2) Major components, systems and appliances
(3) Performance and limitations

(4) Operation procedures - standard and emergency

(5) Flight manual or owner's handbook

(6) Weight and balance computation, compliance and limitations for takeoff, landing and en route operation.

(c) Navigation - use of air navigation aids, instrument approach facilities and procedures.

(d) Air traffic control procedures, VFR - IFR, as appropriate.

(e) Meteorology - general and area of operation

(f) Severe weather avoidance; thunderstorm, icing conditions and turbulent air penetration.

(g) Cockpit vigilance, altitude awareness and crew coordination.

PHASE: Initial and Recurrent Flight Training

I. Does the training include at least the following:

(a) Those original pilot certification flight maneuvers, pertinent to the class and type aircraft, as contained in FAR 61 and related Advisory Circulars.

(b) Navigation by pilotage (when appropriate)

(c) The six-month instrument check equipment and flight test requirements:

Equipment

(1) Emergency procedures

(2) Engine operation

(3) Fuel and lubrication systems

(4) Power settings

(5) Stall Speeds

(6) Best Engine-out speed

(7) Propeller and supercharger operations

(8) Hydraulic, mechanical and electrical systems

Flight

(1) Navigation by instruments

(2) Recovery from silulated emergencies

(3) Standard instrument approaches pertinent to the type authorized to be used

(4) Use of autopilot when authorized

(5) Takeoffs, landings and ground handling maneuvers

PHASE: Transitional Ground Training

I. Reference and Study Material

Is an appropriate listing provided?

II. Subjects

Does the curriculum provide for adequate training to enable the pilot to pass the knowledge test relative to the new equipment, procedures and techniques?

PHASE: Transitional Flight Training

I. Is the training provided by this section of the curriculum adequate to integrate the new equipment, procedures and techniques smoothly into the operation? Does it enable each assigned pilot to pass the required practical skill test?

EXAMINATION: Do the company testing procedures, for each phase, ensure the operator that pilots are receiving adequate training commensurate with their experience, qualifications and assigned duties?

GENERAL: Do the ground and flight training curriculums contain adequate information to ensure the operator that his crewmembers are knowledgeable in the area of:

(1) Wake turbulence avoidance (Airman Information Manual and Advisory Circular AC-90-23C)

(2) Altitude awareness and cockpit vigilance

(3) Hydroplaning

(4) Use of airborne weather radar and its interpretation (if appropriate)

(5) Severe weather flying and turbulence penetration relative to:

a. Proper use of stabilizer trim and autopilot;

b. Proper airspeed, aircraft configuration, trim and power settings; and

c. Flying qualities of each type aircraft used such as stick forces which can be induced through misuse of stabilizer trim.

(6) Cold weather operation

(7) Visual Approach Slope Indicator (VASI) (FAR 91.87(d)(3).

1/16/75

APPENDIX 6. SAMPLE LIST OF AIRCRAFT USED OR AVAILABLE FOR USE IN ATCO OPERATIONS

XYZ AIR TAXI

BOX 12345

ANYTOWN, ANYSTATE 00000

Date:_____

AIRCRAFT USED OR AVAILABLE FOR USE IN ATCO

ATCO - (AIR TAXI COMMERCIAL OPERATORS)

REGISTRATION NO.	
MAKE	
MODEL	
OPERATIONS EQUIPPED FOR	
VFR	IFR
PASS	PASS
CARGO	CARGO
DAY	DAY
NIGHT	NIGHT
	OFF AIRWAYS

AIRCRAFT DAILY RECORD

XYZ AIRLINES
ANYTOWN, ANYSTATE USA

Registration No :			Date:		Empty Weight:			Empty CG:		
Flight No.	From	To	Pilot	Copilot	AIRCRAFT TIME To date	This trip	Total	Engines :	No. 1	No. 2
								Bal brt. Forward : These Flights : Total To Date :		
								Altimeter System Test Conducted: ATC Transponder Test Conducted:		

VOR Receiver Checks:	
No. 1:	
No. 2:	
By:	

MAINTENANCE RELEASE:

I certify that the corrective actions listed below have been made in accordance with Federal Aviation Regulations Part 43 and the aircraft is approved for return to service. Also that the required airworthiness inspections in accordance with the inspection program of XYZ Airlines have been made and the aircraft is approved for return to service.

Signature: _____

Cert. No. & Ratings: _____

Item No.	Discrepancies	Item No.	Corrective Action	By:

APPENDIX 8. SAMPLE OPERATIONS SPECIFICATIONS - AIRCRAFT MAINTENANCE: REQUIRING OPERATOR TO DEVELOP APPROVED AIRCRAFT INSPECTION PROGRAM

FIGURE 1. Operations Specifications

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved
OMB No. 04-R0075

OPERATIONS SPECIFICATIONS PART D

AIRCRAFT MAINTENANCE

ISSUED TO: XYZ Air Taxi

Pursuant to Section 135.60(a) of the Federal Aviation Regulations, you are hereby notified that the aircraft inspections specified in FAR 91.169 or FAR 91.171 are not adequate for the (specify make and model) aircraft that you operate under FAR 135. You are therefore required to develop and submit an aircraft inspection program for approval (ref. FAR 135.60) by (specify date).

Effective date _____

FAA Form 1014 (2-72)

AC 135-3A
Appendix 8

FIGURE 2. Operating Certificate

FEDERAL AVIATION ADMINISTRATION
Washington, D. C.

Operating Certificate No. .....

..... hereby makes application for amendment of the Operations Specifications appearing on the reverse side hereof, as follows:

Reasons and supporting data (if insufficient space attach additional page):

I CERTIFY that the statements submitted in connection herewith are true and that I am duly authorized to make this application on behalf of the applicant.

..... (Signature)

Date .... (Title)

INSPECTOR'S RECOMMENDATIONS:

..... (Signature)

..... (Title)

The Operations Specifications set forth on the reverse side hereof are .....

.....

Amendment No. original — By direction of the Administrator:

Effective date April 15, 1974 — (to be signed by Chief) (Signature)

Supersedes specifications dated ..... — Chief, EA-GADO-16 (Title)

Received for the applicant by:

..... (Signature)

Date .... (Title)

APPENDIX 9. SAMPLE OPERATIONS SPECIFICATIONS - AIRCRAFT MAINTENANCE: APPROVED AIRCRAFT INSPECTION PROGRAM

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved
OMB No. 04-R0075

OPERATIONS SPECIFICATIONS PART D

AIRCRAFT MAINTENANCE

ISSUED TO: Doro Aviation Service

APPROVED AIRCRAFT INSPECTION PROGRAM

The aircraft listed below by registration number shall not be used in air taxi operations by (identify the specific ATCO by name) unless:

a. The aircraft has been inspected in accordance with the Approved Aircraft Inspection Program for Doro Aviation Service.

Registration No.

1.
2.
3.
4.
5.

Effective date _____

FAA Form 1014 (2-72)

FEDERAL AVIATION ADMINISTRATION
Washington, D. C.

Operating Certificate No. 16-EA-2

John J. Doe d/b/a Doro Aviation Service hereby makes application for amendment of the Operations Specifications appearing on the reverse side hereof, as follows:

Request that N1234 and N1235 be removed from listing of aircraft to be inspected in accordance with the Approved Aircraft Inspection Program of Doro Aviation Service. Also request that N1236 be added to the list.

Reasons and supporting data (if insufficient space attach additional page):

N1234 and N1235 have been sold.
N1236 has been purchased to replace the older aircraft.

I CERTIFY that the statements submitted in connection herewith are true and that I am duly authorized to make this application on behalf of the applicant.

(to be signed by the applicant)
(Signature)

Date March 31, 1975

(See Appendix 1, Page 3)
(Title)

INSPECTOR'S RECOMMENDATIONS:

(Signature)

(Title)

The Operations Specifications set forth on the reverse side hereof are approved

Amendment No. One

By direction of the Administrator:

Effective date April 15, 1975

E. C. Hedrick
(Signature)

Supersedes specifications dated July 8, 1974

Chief, EA-GADO-16
(Title)

(One copy to be signed by the applicant when he receives the original of Form FAA 1014)

Received for the applicant by:

/s/
(Signature)

Date April 10, 1975

(See Appendix 1, Page 3)
(Title)

APPENDIX 10. SAMPLE OPERATIONS SPECIFICATIONS - AIRCRAFT MAINTENANCE: WEIGHT AND BALANCE SYSTEM

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved
OMB No. 04-R0075

EXAMPLE

PART E

OPERATIONS SPECIFICATIONS

EXAMPLE OPERATIONS SPECIFICATIONS
AIRCRAFT WEIGHT AND BALANCE CONTROL

The following procedures have been established to maintain control of weight and balance of ABC Air Taxi Aircraft operated under the terms of these specifications (identified below) and to insure that these aircraft are loaded within the gross weight and center of gravity limitations.

Determination of Weight of Passengers and Crew. Procedures by which either actual or approved average passenger and crew weights may be used are provided in the operator's company manual.

Determination of Weight of Baggage.

(a) When computing the weight and balance of the aircraft, the average passenger baggage weights used are in accordancewith the weight and balance section of ABC Air Taxi's company manual.

(b) The average passenger baggage weights authorized in paragraph (a) shall not be used in computing weight and balance involving carriage of non-standard groups.

Loading Schedules and Identification of Aircraft. The following loading schedules are used for routine operation:

	Aircraft Type		Type Loading Schedule
1.	Beech 99	Passenger and Cargo	Tabular
2.	Beech 18	Cargo	Index

Loading Instructions. Loading instructions relative to the above listed loading schedules are set forth in ABC Air Taxi weight and balance section of the company manual.

Effective date April 15, 1974

FAA Form 1014 (2-72)

1/16/75

FEDERAL AVIATION ADMINISTRATION
Washington, D. C.

Operating Certificate No. 16-EA-2

ABC Air Taxi, Inc. hereby makes application for amendment of the Operations Specifications appearing on the reverse side hereof, as follows:

To establish an approved weight and balance control system for aircraft operated by ABC Air Taxi, Inc.

Reasons and supporting data (if insufficient space attach additional page):

A more uniform procedure to control weight and balance of air taxi aircraft.

I CERTIFY that the statements submitted in connection herewith are true and that I am duly authorized to make this application on behalf of the applicant.

(to be signed by applicant)
(Signature)

Date April 1, 1974

President
(Title)

INSPECTOR'S RECOMMENDATIONS:

(Signature)

(Title)

The Operations Specifications set forth on the reverse side hereof are approved

Amendment No. original

Effective date April 15, 1974

Supersedes specifications dated

By direction of the Administrator:

E. C. Hedrick
(Signature)

Chief, EA GADO-16
(Title)

Received for the applicant by:

(Signature)

Date

(Title)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved
OMB No. 04-R0075

Example — Part E

OPERATIONS SPECIFICATIONS

AIRCRAFT WEIGHT AND BALANCE CONTROL

The operator is authorized to use average passenger weights to compute passenger loads over any route, except in those cases where nonstandard weight passenger groups are carried.

Either method may be used interchangable provided only one method is used for any flight from beginning to terminating point of the particular trip or flight involved.

1. Average Passenger Weight.

   a. An average weight of 160 pounds (summer) may be used for adult passengers during the calendar period of May 1 through October 31.

   b. An average weight of 165 pounds (winter) may be used for each adult passenger during the calendar period from November 1 through April 30.

   c. An average of 80 pounds may be used for children between the ages of 2 and 12. Children above 12 years of age are classified as adults for the purpose of weight and balance computations. Children less than 2 years old are considered "babes in arms."

   d. The above passenger weight includes minor items normally carried by a passenger, such as handbags and attache cases.

   e. Use of average passenger weight is not authorized in the case of flights carrying passengers whose average weight obviously does not conform with the normal standard weight.

2. Actual Passenger Weight. Actual weight will be used when a passenger load consists partly or entirely of athletic squads or other groups which are larger or smaller than the average passenger weight as set forth in 1 above, or when the passengers' average weight obviously does not conform with the average passenger weight.

   Actual passenger weight may be determined by scale weighing of each passenger prior to boarding the aircraft, with such weight including minor articles carried on board by the passenger. If such articles are not weighed, account for the estimated weight. The actual passenger weight may also be determined by asking each passenger his weight and adding thereto a predetermined constant to provide for handcarried articles and also to cover possible seasonal effect upon passenger weight due to variance in clothing weight.

3. Crew Weight. For crewmembers, the following average weights may be utilized:

   a. Male cabin attendants 150 pounds; female cabin attendants 130 pounds.

   b. All other crewmembers 170 pounds.

Effective date _____

FAA Form 1014 (2-72)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON

Form Approved
OMB No. 04-R0075

Example

Part E

OPERATIONS SPECIFICATIONS

AIRCRAFT WEIGHT AND BALANCE CONTROL

4. Passenger and Crew Baggage. The following average passenger baggage weights may be used in lieu of actual weights:

   a. For each piece of check baggage, an average of not less than 23.5 pounds; and

   b. For each passenger boarding the aircraft, an average of not less than 5 pounds for hand baggage whether or not such baggage is carried by the passenger.

   c. Do not use average passenger baggage weights in computing the weight and balance of charter flights and other flights involving the carriage of special groups.

LOAD MANIFEST.

A load manifest must be prepared by the flight crew prior to departure from the loading ramp and it shall include at least the following items:

(1) The weight of the aircraft, fuel, oil, cargo, passengers, mail and baggage.

(2) The maximum allowable weight for that flight.

(3) The total weight as computed under the approved procedures.

(4) Evidence that the aircraft is loaded according to an approved schedule which ensures that the center of gravity is within limits and will remain so throughout the proposed flight.

IN ANY EVENT, REGARDLESS OF WHICH METHOD IS USED, THE AIRCRAFT MUST NOT EXCEED ALLOWABLE WEIGHT AND CENTER OF GRAVITY LIMITS.

Effective date _____

FAA Form 1014 (2-72)

Form FAA-1014 (5-47)

APPENDIX 11. SAMPLE INSTRUCTIONS AND PROCEDURES FOR CONDUCTING THE APPROVED AIRCRAFT INSPECTION PROGRAM

PATTERN A -- AIRFRAME

N-	STATION
Aircraft Total Time	Date
Inspection Item	Mechanic
CABIN SEATS & SAFETY BELTS Row 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - Lounge	
MAIN CABIN - LOUNGES - LAVATORIES 1. Buffets	
2. Buffets Electrical	
3. Entrance Door	
4. Windows	
5. Emergency Equipment	
6. Lighting	
7. Hat Rack	
8. Walls and Ceiling	
9. Water Tank (Supply & Storage)	
10. Lounge to Cockpit Door	
11. Forward Lounge Tables	
12. Lavatory Doors and Locks	
13. Emergency Windows	

PATTERN A

AIRFRAME

N-	STATION
Aircraft Total Time	Date
Inspection Item	Mechanic
CABLES	
1. Raise Rugs and Floor Boards for Cable Inspection	
2. Inspect all Cables Under Floor	
3. Install Rugs and Floor Boards After Cable Inspection	
4. Inspect Floor Boards and Rugs for Security	
5. Inspect Under All Floor Boards for General Condition of Structures, Pulleys, Pulley Brackets, Bell Cranks, etc. prior to reinstalling floorboards.	

PATTERN A.

AIRFRAME

N-	STATION
Aircraft Total Time	
INSPECTION ITEM	MECHANIC
FLIGHT COMPARTMENT	
1. Windshield and Windows	
2. Cockpit Area	
3. Additional Crewmember's Seat	
4. Crew Seats	
5. Radio Controls and Panels	
6. Headphones, Microphones, and Speakers	
7. Fuselage Door	
8. Radio Rack Shelves	
9. Radio Rack Cables	
10. Cargo Area	
11. Emergency Equipment	
12. Foreign Material	
SERVICE ITEMS	
1. Check Applicable A.D. Notes	
2. Check Applicable Newsletters	
3. Lavatories and Cans (also drains)	
4. Turbines	
5. Hydraulic & Anti-icing Fluids	
6. Accumulator Pressure Systems	
7. Air Brake Cylinder	
8. Cabin Seats, Rugs, Buffet (cleanliness)	
9. Oxygen & Fire Bottles	
10. Visual Inspection	

PATTERN A

AIRFRAME

RADIO CHECK

Inspection Item	Capt.	F/O	F/E
FUNCTIONALLY CHECK:			
1. VHF Transmitter			
2. VHF Receiver			
3. H F Transceiver			
4. #1 ADF (Audio and Homing)			
5. #2 ADF (Audio and Homing)			
6. #1 VOR/LOC			
7. #2 VOR/LOC			
8. #1 Glideslope Rec.			
9. #2 Glideslope Rec.			
10. VOR Accessory/Instrumentation Unit			
11. Marker Rec. (Aural and Lights)			
12. Loran			
13. P. A. Amplifier			
14. Interphone Amplifier			
15. DME			
16. Radar			
17. Transponder			
18. Auto Pilot			
19. Service Interphone			
@) ıin's Headset & Microphone			
21. F/O Headset & Microphone			
22. Engineer's Headset & Microphone			

NOTE: Enter discrepancies in Aircraft Log Book

PATTERN A

ENGINE NO. 1

N-	STATION
Engine T.S.O.	DATE

Inspection Item	Mechanic
1. Uncowl Engine	
2. Drain Oil Tank and Refill with New Oil	
3. Check Main Oil Screen	
4. Reinstall Main Oil Screen	
5. Remove Spark Plugs	
6. Compression Check Cyls.	
7. Injection Check Engine	
8. Install Spark Plugs (New or Reconditioned)	
ACCESSORY SECTION 1. Pres. Check Engine Fuel System	
2. Rear Section and Accessories	
3. Accessory Section and Components	
Engine Mount and Components	
NG AND CARBURETOR AIRSCOOP ssembly and Attachments	
scoop	
SYSTEM . T. 's	
. Stacks and Attachments	
Clamps and Bolts	
ECTION ylinders and Attaching Units	
Cases and Engine Sumps	
Cowl Flaps and Units	
4. Intake Pipes	
5. Ignition System Complete	
NOSE SECTION 1. Front Case and Units	
2. Propeller Assembly	
ELECTRICAL 1. Fire Wall Terminals	
2. Fire Warning Units	

PATTERN A

AIRFRAME

CABIN SEATS AND SAFETY BELTS

1. Check seats for security to floor.

2. Seat operation.

   a. Slipping back rests.
   b. Slipping brake.
   c. Broken brake cable.

3. Cleanliness of seat cushion and back cover.

4. Broken or loose, missing seat pocket bungee.

5. Seat cushion snaps secured to seat frame.

6. Arm rests for condition and security.

   a. Torn leather.
   b. Cleaniness.
   c. Ash trays for operation and condition.

7. Pockets for life vest for condition and security.

8. Life vests for condition and check CO^2 in pockets, handles, safety cocked for operation, check dates for leakage tests.

9. Check seat cushion bottoms, bungee missing and broken.

10. Check seat belts for operation security.

11. Check female end for spring tension.

12. Check male and female end for frayed metal tips or plastic ends in good condition.

13. Check metal tag date for load test.

14. Check and install sickness cups or bags.

PATTERN A

AIRFRAME

MAIN CABIN LOUNGES AND LAVATORIES

1. BUFFETS

a. For cleanness.
b. Operation of doors.
c. Check for sharp edges, cracks and security.
d. Drains to be opened.

2. BUFFETS ELECTRICAL

a. Check operation of ovens, coffee containers, hot cups.
b. Check plugs wiring circuit breakers.
c. Check lighting.

3. ENTRANCE DOOR

a. Check operation.
b. Check seal for condition and security
c. Check for leakage around seal, (staining of seal and adjacent areas indication of leak).
d. Check condition of door itself, such as: trim windows locking fingers to be in positive position when door is locked; check through windows marks line up when locked.
e. Check door warning light for operation.

WINDOWS

a. Check for cracks around outer edge at thru bolts.
b. Check crazing-small dots like stars anywhere on window.
c. Scratches - write up only scratches that can be felt by finger nail.
d. Check trim, seal and cleanness.

EMERGENCY EQUIPMENT

a. Life rafts and containers condition and security.
b. Life vests and containers.
c. Proper amount of different size life vests (infant).
d. Destruction knife.
e. Oxygen bottles full to 1100 p.s.i.; dust covers over heads operation and security; proper number of oxygen masks.
f. Escape chute-- condition and security, color code markings.
g. Escape rope--condition and security.
h. Axe--condition and security.
i. Fire bottles--weight, condition and security and seal.
j. Emergency cabin light operation and condition, proper location and security.
k. Hostess P.A. system--to pilot, to passenger.
l. Emergency procedure cards behind each seat pocket.
m. First-aid kit, condition - proper quantities of materials.

6. LIGHTING

   a. Check ceiling lights - bright and night.
   b. Check reading lights.
   c. Check hostess call light.
   d. Lavatory lights and hostess call light in lavatories.

7. HAT RACK

   a. Condition security, check for pillows, blankets and cleanness.

8. WALLS AND CEILING

   a. Condition and security and cleanness.

9. WATER TANK

   a. Condition and security (supply and storage, leakage operation and drainage).

10. LOUNGE TO COCKPIT DOOR

   a. Condition and security.
   b. Door locking mechanism.

11. FORWARD LOUNGE - TABLES

   a. Check for integrity of mounting, table structure, etc.

12. LAVATORY DOORS AND LOCKS

   a. Check for proper lubrication and operation.

13. EMERGENCY WINDOWS

   a. Same as windows.
   b. Operation.
   c. Clearly marked.
   d. Check fingers for locking through locking windows marks li
   e. Check handle for safety .032 wire brass.

CABLES

1. Raise rugs and floor boards for cable inspection.

2. Inspect all cables under floor.

   a. Check cables for rust, bird caging, fraying, pay attention around pulleys, loose and missing grommets and fair leads.
   b. Cables for being crossed.
   c. Cable tension.
   d. Check turnbuckles for safety (proper safety, proper wire, etc.).

3. Inspect under all floor boards for general condition of structures, pulleys, pulley brackets, bell cranks, etc. and corrosion.

4. Check floor boards for cracks corrosion for missing anchor nuts or any other locking device.

5. Install rugs and floor boards after inspection.

   a. Check for condition and security.

FLIGHT COMPARTMENT

1. WINDSHIELD AND WINDOWS

   a. Check delamination.
   b. Check cracks.
   c. Check fogging.
   d. Check condition and security, wrench in place.
   e. Operation of sliding windows - pilot and copilots.
   f. Check condition and security of wiper blades and arms, proper blade tension and operation.
   g. Check w/s defroster, de-icer, anti-icer, fluid outlets.

2. COCKPIT AREA

   a. Cleanness.
   b. Check condition and security of trim, panels, markings, placards, checklist (pilots).
   c. Check operation of flight controls, trim controls, engine controls, fuel tanks selector, X-feed, fuel dump controls, fuel shut-off, CO^2 selector.

3. ADDITIONAL CREWMEMBER SEAT

   a. Check for condition and security and operation.

4. CREW SEATS

   a. Check for condition and security and operation.
   b. Check seat track for wear, check seat track stops.
   c. Check seat cushions for condition, also arm rests and ash trays.
   d. Check seat belts--condition and security.

5. RADIO CONTROLS AND PANELS

   a. Check condition and security and operation.

6. HEADPHONES, MICROPHONES AND SPEAKERS

   a. Check condition and security and operation.

7. FUSELAGE DOOR

a. Check for condition and security and operation.
b. Check door seal for tears, leaks and correct positioning.
c. Check locking finger -- for going home check warning door light for correct position and operation.
d. Check trim-locking windows and scanning window for cracks, crazing, etc.; lining up of door fingers.

8. RADIO RACK SHELVES

a. Check for condition and security (cracks, looseness, etc.).

9. RADIO RACK CABLES

a. Check condition, security, freedom of movement, and absence of chafing.

10. CARGO AREA

a. Check condition and security.
b. Cargo post, webbing and locking of post, flooring for cracks, corrosion, loose screws, and maximum load factor.
c. Cleanness of area.

11. EMERGENCY EQUIPMENT

a. Condition and security of life rafts and vests.
b. Correct amount of vests and rafts.
c. Destruction knife.
d. Crew Oxygen and smoke mask (for condition, security and supply).
e. Fire bottle (weight, date and seal).
f. Crash axe.
g. Signal lamp.
h. Very pistol (flares).
i. Emergency locator transmitter/receiver.

12. FOREIGN MATERIAL

a. Remove and clean area of foreign material.

SERVICE ITEMS

1. Comply with any A. D. notes (When applicable).

2. Comply with newsletters (when applicable).

3. Lavatories and cans (also drains).

4. Turbine both - check and fill.

5. Hyd. fluid, anti-icing fluid - check and fill.

6. Accumulator pressure system and nose - check and fill.

7. Air-brake cylinder - check and fill.

8. Cabin seats, rugs, buffets - cleanliness.

9. Oxygen, fire bottles. Check and fill (NOTE: Date of last hydro. check and when appropriate have rechecked).

10. Visually inspect fuselage, tail surface, controls, wings, flaps main and nose gear tires for cuts, wear, proper pressure, lights landing and running, rotating beacon, wing icing, taxiing lights, antennas, etc.

PATTERN A. NO. 1 ENGINE

1. UNCOWL ENGINE

   a. Mark cowling for easy installation.
   b. Check for cracks, loose rivets or broken locking fingers.
   c. Check for missing or broken cam locks.

2. DRAIN OIL TANK AND REFILL WITH NEW OIL

   a. Drain oil at botton at hopper at Y drain and close. (make sure you feel a positive snap).

3. CHECK MAIN OIL SCREEN

   a. For foreign material, use magnet, small particles of bronze are permissible.

4. REINSTALL MAIN OIL SCREEN

   a. Replace O-ring gasket.
   b. Double safety clamp.
   c. Check for leaks.

5. REMOVE SPARK PLUGS

   a. Check condition of plugs. This can tell you if plugs were firing, condition of cyl.,mixture of cyl. etc.

   b. Peening of plug.

6. COMPRESSION CHECK CYLINDER

   a. Check for very low compression or no compression at all.
   b. Borescope cyl. to check for cracks, ring gland failure, etc., if compression is found in this condition, to be low or not at all.

7. INJECTION CHECK ENGINE

   a. Install power unit.
   b. Fuel aux. pumps on.
   c. Mixture control full rich.
   d. Spin prop.
   e. Check for leaks at all injection nozzles, at cyl. lines, and pump.

8. INSTALL SPARK PLUGS (New or Reconditioned)

   a. Check condition of plugs; if plugs were dropped, replace, new gasket and torque to proper valve.

ACCESSORY SECTION

1. PRESSURE CHECK ENGINE FUEL SYSTEM

   a. Check for leaks at all lines, pumps, fuel transmitter and carb. operate primer.
   b. Check for leaks at induction case.
   c. Check nozzles and lines.

2. REAR SECTION AND ACCESSORIES

   a. Rear section of engine for cracks, leaks both oil and fuel.
   b. Condition and secure.
   c. Check operation throttle mixture, carb. scoop, fire wall shutoff, check cables.

3. ACCESSORY SECTION AND COMPONENTS

   a. Check condition and security of components.

4. ENGINE MOUNT AND COMPONENTS

   a. Mount - cracks, oil leakage.
   b. Check engine bolts and trunnion.

COWLING AND CARBURETOR AIRSCOOP

1. ASSEMBLY AND ATTACHMENTS

   a. Condition and secure.

2. AIRSCOOP

   a. Condition and security, operation from cockpit.
   b. Check push rods, cables pulleys, etc.

EXHAUST SYSTEM

1. P.R.T.'s

   a. Check for cracks on head, turbine blades, spin turbine check for freeness, check hold down bolts for hood.

2. EX. STACKS AND ATTACHMENTS.

   a. Cracks, worn spots, blow by, hot spots, clamp and bolts worn, broken, missing exhaust stacks.

3. EX. CLAMPS AND BOLTS

   a. Condition and secure, worn or broken, loose check for secure at cyl. end.

POWER SECTION

1. CYLINDERS AND ATTACHING UNITS

   a. Cracks around spark plugs, boss, heads, baffles for secured cracks,etc.
   b. Check cyl. hold down bolts for tightness and sheared.
   c. Rocker covers for leaks, push rods for leak, cyl. drain lines.

2. CASES AND ENGINE SUMPS

   a. Check case for condition and secure, cracks leaks at parting surface, sumps for cracks leaks and safety.

3. COWL FLAPS AND UNITS

   a. Check cowl flap shingles for condition and security, cracks, mounts and drive units and motors.

4. INTAKE PIPES

   a. Check condition and security at attach points at case end and at cyl. packing nut tight and safety, cracks hold in pipe, etc.
   b. Check for distortion of pipe.

5. IGNITION SYSTEM COMPLETE

   a. Check plugs for tightness.
   b. Check H. T. coil and leads.
   c. Check lead cigarettes.
   d. Check P leads.
   e. Check mag. and dist.
   f. Harness for cracks and condition and security.
   g. Check spark advance.

NOSE SECTION

1. FRONT CASE AND UNITS

   a. Case for cracks and oil leak.
   b. Check prop gov. and step relay for condition and security.
   c. Check conduits.

2. PROP. ASSEMBLY

   a. Prop blades for cracks, nicks, condition and security of chaffing strip at leading edge. De-icer boot for cuts tear and operation. Leaks at hub and at shank of blades.

ELECTRICAL

1. FIRE WALL TERMINALS

   a. Check for condition and security, dirty, worn, corrosion, and water.

2. FIRE WARNING UNITS

   a. Same as above plus---check operation by shorting each unit.

2-3-4-ENGINES

Remove cowl and visual inspect.

Aircraft: N- Date:

TURN AROUND INSPECTION

ITEM	MECHANIC
1. Left Wing: Flap, Fluid Leaks, Landing and Navigation Lights, Aileron & Tab, Wing Surfaces.	
2. Cabin Heater: CO^2 Discharge Discs.	
3. Nos. 1 & 2 Engines: Nacelle Exterior, Oil Cooler, Cowl Flaps, visible portion of engine thru Cowl Flaps Gap and Front Cowl.	
4. Nos. 1 & 2 Propellers: Deicer Boots, Blades, Blade Angle, Wiring, Blade Switches, Brush Block Oil Leaks.	
5. Cabin Supercharger/Air Tail Heater Scoops, Static Ports Pitot Heads.	
6. Left Main Gear and Well: Tires, Brakes, Strut Extension, Wheel Well Doors, General Inspection of Well Interior.	
7. Cabin Heater Combustion Air Inlet.	
8. Radio Antennas and Radome.	
9. Nose Gear/Well: Tire, Strut Extension, Wheel Well Doors, CO^2 Discharge Discs, General Inspection of Well Area.	
10. Right Main Gear Well, #3 & #4 Engines & Propellers: Right Wing, etc., Inspect in same manner as left side of aircraft.	
11. Tail Area: Stabilizer Surfaces, Flight Controls and Tabs, Navigation Lights.	
12. Main Cabin Door: Bayonets, etc.	
13. Fluid Service Covers.	
14. Cockpit External Door Bayonets, etc.	
15. Rear Emergency Exit Door, Right side of aircraft.	
16. Emergency Exit Windows.	
17. Review and Correct Discrepancies Recorded in Aircraft Log.	

1/16/75

Aircraft: N- Date:

SERVICE CHECK

ITEM	MECHANIC
1. Left Gear: Tires, Brakes, Wheels, Strut Extension, Lockouts, Hydraulic and Air Lines Shuttle Valves.	
2. Right Gear: Repeat Left Gear Check and Check Air/Ground Transfer Micro Switch Assembly.	
3. Nose Gear: Static Ground Wire, Tire, Wheel Strut Extension, Steering Systems Components.	
4. Recirculating Blower Intake.	
5. Cabin Heater CO^2 Discharge Discs.	
6. Cabin Heater Blower Intake.	
7. After Cooler Flap Door.	
8. Left Wing Lower Surface: Flaps, Inspection and Access Doors (NOTE: Tank Drain/Shutoff Valve door fit flush only when valve is correctly positioned) Dump chutes, Landing Lights, Aileron and tab (alignment), Fuel Vent Drain Post, Fuel Leakage Stains, Integrity of Skin and rivets.	
9. Left Navigation Light and Wing Tip.	
10. Wing Leading Edge.	
11. Airfoil Heater Exhaust.	
12. No. 1 Engine: Nacelle exterior, oil cooler scoop and door, cowl flaps, visible portions of engine through cowl flap gap and front cowl inlet.	
13. No. 1 Propeller: Deicer Boots, Blades, Blade Angle (forward pitch) wiring, Blade Switches, Brush Block, Oil Leaks.	
14. Cabin Supercharger/Airfoil Heater Airscoop.	
15. Left Main Gear Well: Doors, wiring plumbing cables, Junction Box Covers, Firewall Shutoff Valves, Wheel well light gear lip latch, Fuel Strainers, Tank Selector, Boost Pumps, Gear Attach Fittings, Gear-up Micro Switch, Bungees, Gear Down Micro Switch.	
16. No. 2 Engine and Propeller: Inspect in same manner as No. 1.	
17. Cabin Heater Combustion Air Inlet.	
18. Lavatory Drain and fill access door.	

SERVICE CHECK
(cont'd)

ITEM		MECHANIC
19.	All Antennas and Radomes.	
20.	Static Pressure Ports.	
21.	Pitot Heads.	
22.	Nose Gear Well: Doors CO^2 Discharge Discs, Bottles, and Plumbing, Gear Down Micro Switch, Gear Attach Fittings, Gear Up Micro Switch, Gear Brake Snubber, Shear Bolt Air/Ground Micro Switch Torque Link and Connector Pins, Hydraulic Lines Steering Components.	
23.	Forward Belly Compartment: Clean - Lights, CO^2 Detectors, CO^2 Outlets.	
24.	Hydraulic Compartment: Accumulator Pres. Gages, Hydraulic Fluid Quantity, General Inspection for Leaks, Cables, Pullies, Wiring, Wing Flap Selector Valve.	
25.	Right Main Gear Well - No. 3 and No. 4 Engines and Propellers, Right Wing, etc. Inspect in same manner as left side of airplane.	
26.	Cabin Pressure Control Valve Outlet.	
27.	Alchohol Tank, Quantity.	
28.	Freon Condenser: Air Intake and Exhaust Flap.	
29.	After Cooler/Supercharger Oil Cooler Scoop.	
30.	Heater Compartment: Fire Detector Ducting, Back Fire warning Switch, Lines, Spark Plug Leaks.	
31.	Rear Belly Compartment: Inspect same as Front Belly.	
32.	Ground Air Condition Intake.	
33.	All Windows and Emergency Exits.	
34.	Tail Heater Compartment Access Door.	
35.	Dorsal Fin Light.	
36.	Horizontal and Vertical Stabilizers.	
37.	Static Dischargers.	
38.	Elevator (Check Tab Alignment).	
39.	Navigation Lights.	
40.	Rudder (Trim Tab Alignment).	
41.	Tail Heater Ground Blower Intake and Exhaust.	
42.	Cabin Pressure Relief Valves and Valve Atmospheric Pressure Vent.	
43.	Left Side of Fuselage: Inspect same as right side.	
44.	Upper Wing Surfaces, Note Security of Fuel and Oil Covers.	
45.	Review Aircraft Log Items and Correct Discrepancies Recorded Therein.	
46.	Log Book Signed Releasing Aircraft For Flight.	

APPENDIX 12. SAMPLE FORMAT FOR PERFORMANCE OF THE APPROVED AIRCRAFT INSPECTION PROGRAM

APPROVED AIRCRAFT INSPECTION PROGRAM
XYZ AIRLINES
FLY-RIGHT AIRCRAFT MODEL 1

	Inspection	Tests	Checks
Air-Conditioning, Chapter 21			
Heater			
Auto-Pilot, Chapter 22			
Amplifiers/Computers			
Control, Altitude			
Servos			
Control Panel, Trim Indicators			
Electrical, Chapter 24			
Ammeter & Voltmeter			
Generator/Alternator			
Inverter, Emergency			
Inverter, Main			
Regulator, Voltage			
Relay, Reverse Current			
Equipment & Furnishings, Chapter 25			
Chute, Evacuation			
First-Aid Kit			
Transmitter, Emergency			
Fire Protection, Chapter 26			
Cylinders, CO^2			
Panel, Fire Detector			
*Hydrostatic Test every 5 years			
Flight Controls, Chapter 27			
Cylinder, Flap Actuating			
Indicator, Wing Flap Position			
Transmitter, Wing Flap Position			
Fuel, Chapter 28			
Indicator, Fuel Quanitity			
Pump, Fuel Boost			
Transmitter, Fuel Quantity			
Hydraulic, Chapter 29			
Accumulator			
Indicator, Hydraulic Quantity			
Pump, Auxiliary Hydraulic			
Transmitter, Hydraulic Quantity			

**"Inspections, Hydrostatic test, and life limits will be accomplished as set forth in Part 173, Chapter 1, Subtitle B of CFR 49 currently in effect."

Approved _____ Effective Date _____

FAA Inspector

APPROVED AIRCRAFT INSPECTION PROGRAM
XYZ AIRLINES
FLY-RIGHT AIRCRAFT MODEL 1

	Inspection	Tests	Checks
Ice & Rain, Chapter 30			
Indicator, Deice Pressure			
Motor, Wing Deice			
Pump, Alchohol Anti-ice			
Instruments, Chapter 31			
Clock			
Landing Gear, Chapter 32			
Bottle, Emergency Air			
Indicator, Landing Gear Pressure			
Wheels, Tires & Brakes			
*Hydrostatic Test every 5 years.			
Lights, Chapter 33			
Flasher			
Rotating Beacon			
Navigation, Chapter 34			
Altimeter			
Indicator, Air Speed			
Compass, Magnetic			
Indicator, Gyro Horizon			
Indicator, Outside Air Temperature			
Indicator, Rate of Climb			
Indicator, Turn & Bank			
Indicator, Directional Gyro			
Flight Director System			
Computer/Amplifier			
Indicators			
Control Panel			
Bench Check every 12 months			
Oxygen, Chapter 35			
Bottle, Oxygen			
Indicator, Oxygen Pressure			
* Hydrostatic Test every 5 years.			
Vacuum, Chapter 36			
Indicator, Vacuum			
Valve, Relief			
Filter, Air			
Fuselage, Chapter 53			
Nacelles, Chapter 54			

* Inspections, hydrostatic test, and life limits will be accomplished as set forth in Part 173, Chapter I, Subtitle B of CFR 49 currently in effect.

Approved _____
FAA Inspector

APPROVED AIRCRAFT INSPECTION PROGRAM
XYZ AIRLINES
FLY-RIGHT AIRCRAFT MODEL 1

	Inspection	Tests	Checks
Propellers, Chapter 61			
Motor, Propeller Feathering			
Propeller Assembly			
Propeller Governors			
Pump, Propeller Feathering			
Power Plant - General, Chapter 71			
Actuator, Cowl Flap			
Cowling			
Mount, Engine			
Engine, Chapter			
Engine, Chapter 72			
Engine, Basic			
Engine Fuel & Control,,Chapter 73			
Carburetor Assembly			
Indicators, Fuel Pressure			
Pump, Engine Driven			
Transmitter, Fuel Pressure			
Warning Unit, Fuel Pressure			
Ignition, Chapter 74			
Ignition Harness			
Spark Plugs			
Engine Indicating, Chapter 77			
Indicator, Carburetor Air Temperature			
Indicators, Cylinder Head Temperature			
Indicators, Manifold Pressure			
Tachometer, Generator			
Exhaust, Chapter 78			
Exhaust Manifold Assembly			
Oil, Chapter 79			
Indicator, Oil Pressure			
Indicator, Oil Quantity			
Indicator, Oil Temperature			
Regulator, Oil Cooler			
Valve, Emergency Shutoff			

Approved _____ Effective date _____
FAA Inspector