

CIVIL AVIATION AUTHORITY, PAKISTAN

Air Navigation Order

No : 91.0006

Date : 21 April, 1999

Issue : One

PROVING FLIGHTS

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1. Authority

- 1.1 This Air Navigation Order (ANO) is issued by the Director General of the Civil Aviation Authority (CAA) in pursuance of the powers vested in him under Rule 4 of the Civil Aviation Rules 1994 (CARs 94).
- 1.2 CARs 187, 188 and 189 states applicants for an Air Operator Certificate (AOC) shall comply with such rules as are applicable for certification.
- 1.3 Proving flights are to be required during the operational phases of certification process or any time deemed necessary by the Director General, for each type aircraft which is intended to be operated.

2. Effective Date

This ANO shall come effect on 21 April 1999.

3. Scope

- 3.1 Proving flights are a series of flights which are designed to demonstrate, prior to the issuance of the AOC, that the applicant is capable of operating and maintaining each aircraft type which he proposes to use to the same standards required of an established operator
- 3.2 Proving flights may also be required of a fully certificated AOC holder, which is adding a new airplane to its fleet.
- 3.3 Successful proving flights may be considered the final proof that an applicant is ready to commence revenue operations with a specific type of aeroplane. During these inspections, the CAA will have the opportunity to observe and evaluate the in-flight operations within the total operational environment of the air transportation system.
- 3.4 Revenue passengers will not be carried. However, it is generally desirable for the applicant to have on board company officials who can make decisions and commitments on behalf of the applicant concerning actions to correct deficiencies. These company officials may also serve as passengers for the purpose of realism, so that the company can perform their normal duties such as passenger briefings and meal services.

4. Planning Requirements

- 4.1. The applicant and the CAA inspector should plan well in advance for the conduct of the proving flights. All concerned must have a clear understanding and agreement as to what must be accomplished by the applicant to show compliance with the applicable operating regulations and rules. This is extremely important to prevent any unnecessary delays causing additional financial difficulties. General objectives for pre-certification proving flights should include the determination of the adequacy of:
- (a) In-flight procedures laid down in the operations manual and compliance with those procedures.
 - (b) The facilities and equipment provided to the flight crew to operate and conduct the flight safely and in accordance with regulations.
 - (c) The support provided by operational control to the flight crew.
 - (d) The general provisions made for ground handling of aircraft and assisting the flight crew to carry out their duties at all aerodromes utilized by the applicant along the routes; and
 - (e) En-route facilities.
 - (f) Proving flights are operated as exactly as though *the* applicant is conducting revenue flights. However, during the course of the flights, CAA may introduce simulated situations, which will require appropriate responses by crewmember's and ground personnel.

5. Proving Flight Demonstrations

- 5.1 Proving will consist of a minimum of 10 hours (5 hours for domestic flights) flown over routes representative for which the operator seeks approval. At least 4 route segments must be flown, if practicable. If the operator seeks approval for night operations, 5 of the 10 hours must be flown at night, if practicable. The sequence of events for the proper planning *for* and carrying *out* of proving flights will be as follows:
- (a) Well before the proving flights (during the pre-application phase of the certification process) CAA will have briefed the operator regarding the necessity for proving flights, what must be accomplished, and the areas which will be evaluated.
 - (b) At least 10 days prior to the proving flights, the operator must submit a proving test plan consisting of a detailed schedule of the proposed flights including dates, times, and airports to be used, along with a list of names of all crewmember's who will be used on each flight. The applicant should also provide a list of names and titles of non-crewmember personnel who *will* be aboard the aircraft during the flights. Preliminary flight plan information containing predicted fuel, baggage, and passenger loads for each segment along with predicted gross takeoff and landing weights must also be provided.
 - (c) After receipt of the proving test plan from the operator, the CAA team will develop a proving flight scenario consisting of simulated emergencies and other means of testing the crewmember's and operator's ability to cope with actual operational contingencies.

- 5.2. Since the primary purpose of the proving flights is to ensure basic compliance with safe operating procedures during routine operations, the introduction of simulated abnormal and emergency conditions should be kept to the minimum required to evaluate the operator's capability to respond to such conditions. The following are typical scenarios, which may be useful in evaluating the operator's capabilities:
- (a) Diversion to alternate airports for reasons such as weather or maintenance- This tests the company's communications, maintenance, ground handling and other operational capabilities.
 - (b) MEL or CDL situations - this test crewmember's understanding of specific operational limitations, company's operations and maintenance procedures. For example, dispatching with an inoperative AC generator tests the operator's ability to comply with the operational and maintenance provisions of the MEL.
 - (c) Performance problems - this requires the aircrew and dispatch or flight control personnel to demonstrate competency and knowledge of such items as aircraft performance, airport analysis charts and alternative company procedures. For example, simulating one-half inch of standing water on a departure runway will test the operator's ability to make performance adjustments.
 - (d) Hazardous cargo - the introduction of simulated hazardous cargo will test the applicant's ability to properly document and handle such items.
 - (e) Simulated aircraft emergencies such as engine failure - this tests the flight crew's knowledge and competency in handling emergency situations. It also tests the operator's communications, maintenance, and other capabilities. Under no circumstances may an actual engine shutdown be required. However, at the discretion of the CAA team leader, a throttle may be retarded to idle thrust during flight, and throughout the approach and landing.
 - (f) Simulated cabin emergencies - this tests the ability of the applicant to deal with cabin abnormalities in accordance with established company procedures; and to coordinate with the flight deck crew. Possible scenarios may include a simulated incapacitated passenger in need of immediate medical assistance, a simulated lavatory fire, or a simulated loss of pressurization.
- 5.3 The proving test flights are then carried out in accordance with the operator's plan and the CAA scenario.
- 5.4 Following each segment of the flight, the operator should be debriefed by the CAA team leader regarding the progress thus far. Unsatisfactory conditions noted by the team leader should immediately be brought to the attention of the applicant for corrective action. An opportunity should be provided to the applicant to remedy any deficiencies affecting the safety of the operation before any further flights are undertaken. All discrepancies and items of non-compliance must be corrected or resolved to the satisfaction of the CAA team leader before the series of flights can be considered successful. Some examples of deficiencies requiring corrective action are:

- (a) Flight crewmember not properly trained, e.g. requires assistance from applicant supervisors or a CAA inspector;
 - (b) Flight crewmember not familiar with aircraft, systems, procedures or Performance;
 - (c) Cabin crewmember not properly trained or not familiar with the location or use of emergency equipment or emergency evacuation procedures;
 - (d) Numerous aircraft deficiencies and/or systems malfunctions;
 - (e) Unsatisfactory operational control, e.g. improper flight planning and flight release procedures;
 - (f) Unacceptable maintenance procedures or practices; and
 - (g) Improper aircraft servicing and ground handling procedures.
- 5.5. Within 24 hours after the entire series of proving flights is completed, the operator will be provided with a detailed debriefing; and will be informed whether or not his overall performance was satisfactory or unsatisfactory. This will be followed with a letter stating the same information.



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Director General
Civil Aviation Authority
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