

CIVIL AVIATION AUTHORITY PAKISTAN

**AIR NAVIGATION ORDER
NO: 90.0016
ISSUE: ONE**

AGRICULTURAL RATING/OPERATION

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1. **AUTHORITY.**

This Air Navigation Order (ANO) is issued by the Director General of Civil Aviation Authority in pursuance of the powers vested in him under rules 4, 124,140,145,360 and 363 of the Civil Aviation Rules, 1994 (CARs 94).

2. **SCOPE.**

This ANO relates to the issue and renewal of Agricultural Ratings endorsed on Commercial Pilot Licences or above issued under CARs 94.

All persons wishing to pilot/operate an aeroplane, a helicopter and Ultra Light Vehicle (ULV) Sport aeroplane Registered in Pakistan in agricultural operations or lease aircraft if allowed by the Director General Civil Aviation Authority in special circumstances, shall comply with the instruction contained in this ANO, ANO No.91.0006 and ANO No 91.0021.

3. **EFFECTIVE DATE.**

This ANO shall come into effect from 1st February 2000.

4. **DEFINITIONS.**

In this ANO:

“Approved agricultural pilot” means a pilot who holds a valid agricultural rating appropriate to the category of aircraft for which the approval is issued and who has been approved by the Authority to conduct:

- a) operational agricultural pilot training;
- b) direct and indirect supervision; or
- c) conversion training on specified agricultural aircraft types;

“Direct supervision” means that the approved agricultural pilot shall be present and available to a pilot engaged in agricultural operations either on the ground at the seen of operation or in the aircraft: being flown by that pilot;

“Indirect supervision” means the periodic surveillance, assessment and correction of persons engaged in operations when those operations are not being conducted under direct supervision.

“Ultra light Vehicle” means an aeronautical vehicle that;

oIf unpowered, weighs less than 200 pound, **or**

oIf powered:

- weighs not more than 500 pounds empty weight, excluding fuel, floats and safety devices which are intended for deployment in a potentially catastrophic situation;
- has a fuel capacity not exceeding 15 US gallons;
- is not capable of more than 85 KCAS at full power in level flight ; and,
- Unless otherwise approved by the Competent Authority, has a power-off stall speed not exceeding 45 KCAS.

“Sport Aeroplane” means an amateur built vehicle that:

- has a capacity for not more than two occupants;
- has a gross weight not exceeding 1200 pounds;
- Unless otherwise approved by the Competent Authority, has a stall speed not exceeding 52 KCAS.

5. **KNOWLEDGE.**

An applicant shall pass the theory examinations in accordance with the approved syllabus where applicable.

6. **EXPERIENCE**

6.1. **Agricultural Pilot Rating – Aeroplane.**

6.1.1. An applicant for an agricultural rating on aeroplane shall be the holder of a valid Commercial or higher category Pilot Licence and shall have satisfactorily completed a course of flying training consisting of:

- a) Endorsement training on the aeroplane type in which the operational agricultural flying training is to be conducted provided the aeroplane type is not already endorsed on his licence;
- b) has completed operational agricultural flying training in accordance with the approved syllabus. This training shall be conducted by an Approved Agricultural Pilot and shall comprise a minimum of 35 hours flying including 25 hours of dual instruction in an aircraft which meets the requirements of paragraph 8.2, and 10 hours as pilot-in-command. The pilot-in-command time may be in a single seat agricultural aeroplane.

6.2. An **Approved Agricultural Pilot (A)** shall be the holder of valid Commercial or higher category Pilot Licence for Aeroplanes and shall have a minimum agricultural flight time specified in paragraph 14 excluding the training time specified in paragraph 6.1.

6.3. **Agricultural Pilot Rating - Helicopter.**

6.3.1. An applicant for an Agricultural Rating on helicopter shall be the holder of a valid Commercial or higher category Pilot Licence for Helicopters and shall have satisfactorily completed a course of flying training consisting of:

- a) endorsement training on the Helicopter type in which the operational agricultural flying training is to be conducted provided the helicopter type is not already endorsed on his licence;
- b) has completed operational agricultural flying training in accordance with the approved syllabus. This training shall be conducted by an Approved Agricultural Pilot (H) and shall comprise a minimum of 25 hours flying, of which 20 hours shall be dual instruction in a helicopter which meets the requirements of paragraph 8.2, and 5 hours as pilot-in-command. The pilot-in-command time may be in a single seat helicopter.

6.3.2. An approved **Agricultural Pilot (H)** shall be the holder of a valid Commercial or higher category Pilot licence for helicopters and shall have a minimum agricultural flight time specified in paragraph 14 including operations using sling load equipment, but excluding the training time specified in para 6.3.

6.4. **AGRICULTURAL PILOT - ULV/SPORT AEROPLANE.**

6.4.1. An applicant for Agricultural Rating ULV and Sport Aircraft shall be the holder of valid Commercial or higher category of Pilot licence for Aeroplane and shall have satisfactorily completed an approved course of flying training consisting of:

- a) Endorsement training on ULV or sport aeroplane type in which the operational agricultural flying training is to be conducted provided the ULV/Sport aeroplane is not already endorsed on his Licence.
- b) Has completed operational agricultural flying training in accordance with CAA approved syllabus. An approved agricultural Pilot (ULV/Sport) shall conduct this training. The training shall comprise of 15 hours of flying of which 10 hours shall be dual instruction and 5 hours solo in type of ULV/Sport aeroplane intended to be used for proposed agricultural spray operation.

6.4.2. An approved **Agricultural Pilot (ULV/Sport)** shall be the holder of a valid Commercial or higher category Pilot licence for Aeroplane with endorsement of ULV/Sport Aeroplane and shall have a minimum agricultural flight time specified in paragraph 14.

6.5. Flying experience gained in an Approved Synthetic Flight Trainer shall not be counted towards the above minimum experience requirements.

7. SKILL.

- 7.1. An applicant shall demonstrate to a CAA Flight Inspector or a person duly approved for the purpose, his ability to carry out competently and safely the pre-flight examination and flight test.
- 7.2. An applicant shall hold a recommendation from the Approved Agricultural Pilot responsible for the applicants flying training that the applicant has reached the standard required for the flight test specified in paragraph 7.1.

8. EXAMINATION AND FLIGHT TESTS.

- 8.1. All written examinations and flight tests where applicable shall be conducted at such times and places and in such a manner as may be determined by the Licencing Authority. This information is specified in the PLM.
- 8.2. For the purpose of undergoing the flight test, an applicant shall provide a suitable dual control aircraft which:
 - a) is equipped to conduct or simulate spraying operations;
 - b) is equipped to carry and jettison a representative agricultural load;
 - c) has adequate side and forward vision for the applicant and Designated Examiner.

9. RECENT EXPERIENCE.

- 9.1. The holder of an Agricultural Pilot Rating (Aeroplane/Helicopter) shall not engage in agricultural operations unless he has flown at least 6 hours in agricultural operations in the preceding 6 months or has completed a flight check to the satisfaction of a CAA Flight Inspector or Designated Examiner.
- 9.2. The holder of an agricultural Pilot Rating (ULV/Sport) shall not engage in agricultural operation unless he has flown at least 3 hours in agricultural operations in preceding 6 months or has completed a flight check to the satisfaction of CAA Flight Inspector of Designated Examiner.

10. VALIDITY.

- 10.1. A rating will remain valid while endorsed on a current Commercial or higher category Pilot Licence, subject to the provisions of CARs and relevant ANOs.

11. AIRWORTHINESS REQUIREMENTS.

Details regarding registration, airworthiness and maintenance requirements for ULV/Sport aeroplane may be referred to in ANO 92.0003.

12. **PRIVILEGES.**

12.1. The holder of a pilot licence endorsed with an Agricultural Rating may pilot an aircraft for which his licence is endorsed in group 1 provided the aircraft is certified for agricultural operations in accordance with CARs.

12.2. A holder of Pilot Licence endorsed with agricultural rating may conduct agricultural spray operation with Registered ULV/Sport Aeroplane endorsed on his licence provided the ULV/Sport aeroplane has "**Permit to Fly**" issued by the Airworthiness Directorate. However the block time of operation including area and level must be co-ordinated well in advance with Area Control Centre Lahore/Karachi through local ATC Unit units for such missions.

Note: Mobile telephone uses if possible is recommended for ULV/Sport aeroplane operation.

13. **LIMITATIONS.**

13.1. Unless otherwise approved by the Authority, the holder of an Agricultural Pilot Rating shall not engage in agricultural operations unless he is employed by, or contracted to, the holder of an aerial work licence endorsed for agricultural operations.

13.2. Following the initial issue of an Agricultural Pilot Rating for aeroplanes, a pilot shall operate under the direct or indirect supervision of an Approved Agricultural Pilot for at least 110 hours flight time in agricultural operations. The initial 10 hours of this period shall be under direct supervision, and the remainder under indirect supervision. The Approved Agricultural Pilot shall certify in the pilot's log book when the period of supervision has been completed. A copy of the certificate shall be submitted to the Licencing Authority.

13.3. Following the initial issue of an agricultural pilot rating for helicopters, a pilot shall remain under the direct supervision of an Approved Agricultural Pilot for at least 20 hours flight time in agricultural operations. The Approved Agricultural Pilot shall certify in the pilot's log book when the period of supervision has been completed. A copy of the certificate shall be submitted to the Licensing Authority CAA.

13.4. Following the initial issue of an agricultural pilot rating for ULV/Sport aeroplane, a pilot shall remain under the direct supervision of an Approved Agricultural Pilot for at least 20 hours flight time in agricultural operations. The Approved Agricultural Pilot shall certify in the pilot's log book when the period of supervision has been completed. A copy of the certificate shall be submitted to the Licensing Authority CAA.

13.5. In case of wet lease ULV/Sport aeroplane, the foreign crew shall be security cleared from concerned security agencies including ISI and MI as per the requirement of the Government of Pakistan.

- 13.6. No person shall operate ULV/Sport Aeroplane:
- 13.6.1. For spray/training operations above 300/1000 ft AGL receptively;
 - 13.6.2. In prohibited or restricted areas unless that person has permission from the user or controlling agency, as appropriate;
 - 13.6.3. Over any congested area of a city, town or settlement;
 - 13.6.4. In a manner, that creates a direct hazard to other persons or property.
 - 13.6.5. Unless clear of clouds, in sight of the surface and flight visibility greater than 1000 meters.
 - 13.6.6. The vehicle/Sport aeroplane shall be flown only over land unless otherwise duly authorised by the Competent Authority.
 - 13.6.7. In a manner, that creates a collision hazard with respect to any aircraft.
 - 13.6.8. Except between the hours of sunrise and sunset.
- 13.7. An aircraft type rating endorsement on the Pilot licence shall not entitle the holder to engage in agricultural operations in that type unless he has experienced, at a safe altitude;
- the stall characteristics,
 - turning performance of the specific ULV/SPORT aeroplane type in a configuration equipped for agricultural operations,
 - loaded to a representative operational weight and
 - that the ULV/Sport aeroplane performance with maximum 'all-up' weight is able to clear all possible high obstacles in its path during the spray operations, specially in hot weather.
- Note:** This experience shall be obtained under the direct supervision of an Approved Agricultural Pilot who is himself experienced on the type of aircraft/ULV/Sport Aeroplane.

14. **APPROVED AGRICULTURAL PILOT.**

- 14.1. Unless otherwise approved by the Authority, an applicant for approval to conduct type endorsement or operational agricultural flying training, shall have the following minimum qualifications and experience in agricultural operations on the category of aircraft for which the approval is requested:
- 14.1.1. Aeroplanes: 1500 hours total flight time, of which at least 750 hours shall be in agricultural, flight time.
 - 14.1.2. Helicopters: 750 hours total flight time, of which at least 500 hours shall be in agricultural flight time.

- 14.1.3. ULV/Sports: 400 hours total flight time, of which 100 hours shall be agricultural flight time as Pilot -in -Command of which 50 hours on ULV/Sport aeroplane including 25 hours on type intended to be used for training.
 - 14.2. An applicant completed an approved instructional course and passes written/oral examination and flight test to the satisfaction of a CAA Flight Inspector. For the flight test other than ULV/Sport aeroplane, the applicant shall provide an aircraft equipped as specified at paragraph 8.2.
 - 14.3. Unless cancelled, varied or suspended by the Authority, an approval will remain current subject to the holder meeting the recent flying requirements of paragraph 9.
15. **EXEMPTIONS.**
 - 15.1. A holder of an Agricultural Rating, instructor/pilot qualified from Contracting State or armed forces with minimum flying experience required for rating(s) given in para 6 and 14 respectively may be exempted from some or all the requirements specified in this ANO, as deemed appropriate by the Licencing Authority.
16. **LOGGING OF FLIGHT TIME.**
 - 16.1. All flight time flown in agricultural operations shall be entered in the pilot's log book and such entries shall indicate the type of operations and the area of operation.
 - 16.2. Dual and solo agricultural flight time shall be logged and counted and such entries shall indicate the name of the instructor, supervisor.
 - 16.3. Flight time logged shall be certified in the pilot's log book:
 - a) by the Approved Agricultural Pilot on completion of the operational agricultural flying training;
 - b) by the Chief Pilot on completion of agricultural operations and at the end of each month.
17. **VARIATION SUSPENSION CANCELLATION AND FINANCIAL PENALTY**
 - 17.1. The Director General may vary, suspend, or cancel a CPL or agriculture Rating and/or impose financial penalty not exceeding Rs.10, 000/- on a holder of such a Licence holder for contravention of any provision of CARs, ANOs and instructions issued from time to time.
 - 17.2. The Director General may also vary, suspend, or cancel aerial work licence or approval/permission of an operator and/or impose financial penalty not exceeding Rs. 40,000/- for contravention of any provision of CARs or the ANOs or instructions issued from time to time.

- 17.3. The Director-General may detain or impound the ULV/Sport aeroplane if it is operated in violation of CARs or any rules and conditions set in this ANO or any other instructions issued from time to time.