

ATTACHMENT 20-1 The Operations of Spraying and Dusting (Agriculture aircraft)

This attachment was established in accordance with Article **202-1** of this AOR proper, and FAR Part 137

1. Applicability

1.1 A general aviation operator, performing agricultural aircraft operation shall comply with the guidance of the attachment in AOR.

1.2 Agricultural aircraft operation is the operation of an aircraft for the purpose of:

1.2.1 Dispensing any economic poison,

Note : Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insect, rodent, nematode, fungus, weed, and other forms of plant or animal life or virus. This does not include viruses on or living in humans or animals. Any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

1.2.2 Dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control.

1.2.3 Engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects.

2. Personnel requirements.

2.1 A chief supervisor designated by an air operator (or a private operator) shall be familiar with the basic safety principles and techniques. An operator may not comply with the requirements of paragraphs from 2.1.1.2 to 2.1.1.4 of this attachment should the operation be executed without any chemicals.

2.1.1 Basic safety principles

2.1.1.1 Steps taken before starting operations, including a survey of the work area.

2.1.1.2 Knowledge and main points about safety process of economic poisons and the proper disposal methods of used containers for those poisons.

2.1.1.3 The general effects of economic poisons and agricultural chemicals on plants, animals, and persons, with emphasis on those normally used in the areas of intended operations; and the precautions to be observed in using poisons and chemicals.

2.1.1.4 Primary symptoms of persons affected by economic poisons, the appropriate emergency measures to take, and the location of medical institutions.

2.1.1.5 Performance capabilities and operating limitations of the aircraft to be used.

2.1.1.6 Safe flight and operating procedures.

2.1.2 Flight skills shall be performed with the load to the maximum certificated take-off weight, or the maximum weight established for the special-purpose load, whichever is greater:

2.1.2.1 Short-field and soft-field take offs (airplanes only).

2.1.2.2 Approaches to the working area.

2.1.2.3 Flare-outs.

2.1.2.4 Swath runs.

2.1.2.5 Pullups and turnarounds.

2.1.2.6 Rapid deceleration or quick stops (helicopters only).

2.2 Operators shall ensure that each person used in an agricultural aircraft operation is informed of their duties and responsibilities for the operation.

2.3 The PIC who performs the agricultural aircraft operation shall possess an appropriate and valid type rating of the aircraft after completion of both knowledge and skill training. Chief supervisor shall ensure that the services of the PIC shall meet the requirement of section 2.1 in this attachment. The PIC shall demonstrate the ability to the supervisor before executing the dispensing operation for the first time. If the supervisor acknowledges that the PIC has the related experience involved in safe flight operation, pesticide dispensing, or fields of chemicals, that he or she may ignore the demonstration.

3. Aircraft requirements.

The aircraft which conducts the jettison operation shall meet the following requirements:

3.1 The aircraft is equipped with approved type certificate (TC) or supplemental type certificate (STC) of a jettisoning device. The aircraft status is airworthy, and is in a condition for safe operation.

3.2 The aircraft has suitable seat belts and shoulder harnesses installed for each pilot station.

4. Operating restriction

Dispensing any material or substance in a manner that will not create a hazard to persons or property on the surface.

5. Use of safety belts and shoulder harnesses.

Pilots who conduct agricultural aircraft operation under the attachment shall securely fasten a safety belt and shoulder harness. The shoulder harness may be unfastened if it hinders the occupant in performing his or her required duties.

6. Deviation from airport traffic pattern.

For take-offs and landings, the PIC of an aircraft engaged in agricultural operation may deviate from an airport traffic pattern when authorized by the control tower. And the aircraft at all times shall remain clear of, and gives way to, aircraft conforming to the traffic pattern of the airport.

7. Operation over congested areas:

7.1 If the operation is conducted over congested area, the agricultural aircraft operation shall be complied with the followings:

7.1.1 The letter of authorization shall be acquired for the target working area from the local government.

7.1.2 Provide sufficient protecting measures to persons and property on the surface.

7.1.3 A notice should be given to the affected public before the dispensing operations begin. Newspaper ads, radio announcements, or television announcements are all effective methods.

7.1.4 Permission of the flight operation shall be acquired. The content of the flight plan shall include obstacle consideration, the emergency landing capabilities of the aircraft, and coordination with air traffic control.

7.1.5 Single-engine aircraft operation shall be complied with the followings:

7.1.5.1 Except for helicopters, no aircraft operations may be conducted over densely populated area, such as loaded take-offs pull-ups and turnarounds.

7.1.5.2 No person may operate an aircraft over a congested area lower than the altitudes prescribed in Rules of the air unless practical dispensing operation is necessary (include entering or exiting the area).

7.1.5.3 When in the vicinity of the congested area (include entering or exiting the area), pilots shall maintain adequate track and altitude to determine that the aircraft will not jeopardize property and persons on the surface in case of emergency landing.

7.1.6 Multiengine aircraft operation shall be complied with the followings:

7.1.6.1 Operation with multiengine aircraft over a densely populated area shall be executed on a safely effective length of the runway of an airport.

7.1.6.2 Calculating Maximum Takeoff Weight of a multiengine airplane taken off over densely populated area, the method is that: The aircraft is able to maintain the rate of climb 50 feet per minute or more at the highest elevation of the working area, at least 1000 feet above the highest obstacle, or calibrated pressure altitude of 5,000 feet MSL (whichever is higher) when the critical engine is inoperative, would permit a rate of climb

of at least 50 feet per minute at an altitude of at least 1,000 feet above the elevation of the highest ground or obstruction within the area to be worked or at a pressure altitude of 5,000 feet MSL, whichever is higher. Aforementioned is assumed that the propeller of the inoperative engine is feathered; flaps and landing gears is in favorable configuration; maximum continuous horse power is available from the good engine.

7.1.6.3 No person may operate any multiengine aircraft over a congested area below the altitudes instructed by the air traffic control except during the actual dispensing operation (include pull-ups and turnarounds, entering and exiting the working area) approaches, departures, and turnarounds

8. Operation requirements for pilots and aircraft over congested areas:.

8.1 PIC shall at least have the following flight experience:

8.1.1 The PIC shall have 25 hours of flight time in the make and basic model of the aircraft. At least 10 of flight hours must have been acquired within the preceding 12 calendar months.

8.1.2 The PIC shall have 100 hours of flight experience in agricultural dispensing operations.

8.1.3 Except for a helicopter, an aircraft shall be equipped and capable of jettisoning at least one-half of the aircraft's maximum authorized load of agricultural material within 45 seconds. An aircraft equipped with a device for releasing the tank or hopper as a unit shall have a means to prevent inadvertent release by the pilot or other crewmember.

9. Records keeping for air operators:

Each holder of general aviation in agricultural aircraft operation shall keep their records at the operator's designated home base of operations. The following items are required to keep in records:

9.1 The legal company and business address;

9.2 The date of the service;

9.3 The name and quantity of the material dispensed for each operation conducted; and

9.4 The name, address, and certificate number of each pilot used in agricultural aircraft operations and the date that practical test was held recently.