

Exemption No. 10116

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
KANSAS CITY, MISSOURI 64106

In the matter of the petition of

AIR TRACTOR, INC.

for exemption from § 23.1001(b), (c)(2)
and (c)(3) of Title 14, Code of Federal
Regulations

Regulatory Docket No. FAA-2010-0468

CORRECTED COPY

The FAA is reissuing Denial of Exemption No. 10110 under Exemption No. 10116 to correct a number duplication error. The exemption number at the top of the page reflects the correct number.

DENIAL OF EXEMPTION

By letter dated April 23, 2010, Mr. Leland Snow, President, Air Tractor, Inc. (Air Tractor), P.O. Box 485, Olney, TX 76374 petitioned the Federal Aviation Administration (FAA) on behalf of Air Tractor for an exemption from § 23.1001, paragraphs (b), (c)(2) and (c)(3) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would permit type certification of the Air Tractor model AT-802/802A with a fuel jettisoning system that does not discharge clear of the aircraft. The aircraft will be used for the special purposes of Aerial Surveying and Patrolling.

The petitioner requires relief from the following regulations:

Section 23.1001(b) prescribes, in pertinent part, the fuel jettisoning system be demonstrated at maximum gross weight with the flaps up. Section 23.1001, paragraphs(c)(2) and (c)(3) prescribes, in pertinent part, the fuel jettisoning system discharges fuel clear of the aircraft and that no fumes or fuel enter the aircraft. The petitioner states the following in their petition for exemption:

“The FARs that we are petitioning to modify for the above aircraft are 23.1001(b) where it says “must be demonstrated at maximum weight.

Air Tractor petitions to demonstrate fuel jettison at a gross weight of 13,000 lbs or more since the absence of hoppers removes space to add the 3,000 pounds of ballast required to bring the AT-802 test aircraft up to its certificated weight of 16,000 pounds.

The FARs that we are petitioning to delete are 23.1001(c)(2) and 23.1001(c)(3).”

The petitioner is requesting to perform the fuel jettisoning testing at a weight other than specified in 23.1001(b), and also delete 23.1001(c)(2) and 23.1001(c)(3) from the certification basis.

The petitioner supports its request with the following information:

“Reasons for the deletion of these 2 FARs:

The wing angle of incidence and the highly cambered airfoil cause the AT-802/802A to fly in a tail-high position, which provides good visibility for the pilot. But tail-high flight results in a low pressure area under the fuselage. The enclosed photo of an AT-802 releasing fire retardant shows that while most of the retardant drops clear of the aircraft, there are some wisps that impinge on the aft part of the belly.

It is possible that small droplets of fuel would enter the fuselage through the small openings for rudder control cables or the opening around the fuselage structure for corrosion prevention.

The cockpits in the AT-802/802A aircraft are sealed off from the rest of the fuselage but it is possible for the crew to detect the smell of fuel in case small amounts of fuel enter the fuselage.

For environmental reasons as well as conservation of our resources, Air Tractor petitions to use water with a red dye instead of Jet fuel. The test aircraft is painted gray, so that the red dye will be visible to trace the path of the water during jettisoning.

Reasons why Air Tractor’s petition should be granted:

1. The AT-802 is a 2-seat restricted category aircraft with no passenger carrying authority. It is for the special purposes listed in FAR 21.25 to include 21.25(b)(3) and 21.25(b)(4). For these purposes the aircraft must have long loiter time for border patrol or other surveillance activities. Its

basic configuration cannot be altered to meet FARs for which we are seeking relief.

2. The fire risk from fuel impingement on the fuselage is negligible due to there being more than ten feet of distance between the exhaust stacks and the discharge port of the fuel jettison system.
3. The FAA approved airplane flight manual lists several instructions to dump the hopper contents in the Emergency Procedures section. It also lists dumping the ferry fuel in the hopper in the ditching procedures. These AFM pages are enclosed.
4. The hopper jettison feature provides more safety for flight over mountainous terrain where suitable landing sites are not available. A lowered landing speed resulting from jettisoning the hopper fuel lowers the airplane stall speed, improving the odds of surviving a crash.
5. We believe that the fuel jettisoning requirement were aimed at large transport airplanes with an emergency landing requirement and not for smaller restricted category airplanes not carrying passengers for hire.
6. The trans Atlantic delivery flight to overseas customers is made more safe because in case of engine failure over water, the fuselage fuel can be jettisoned and the jettison valve closed so that the tank can be used to create more buoyancy and help prevent the aircraft from sinking.”

A summary of this petition was published in the Federal Register for public comment on June 9, 2010, (75 FR 32837). No comments were received.

The FAA’s analysis is as follows:

The FAA finds that in accordance with 14 CFR § 11.81(d), the petitioner must show that granting the request would be in the public interest, that is, benefit the public as a whole. Also the petitioner must show in accordance with § 11.81(e), the reasons why granting the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which you seek the exemption.

The FAA has carefully reviewed the information contained in the petitioner's request for exemption.

The FAA disagrees with the petitioner's argument.

- The exemption would allow the use of a jettisoning system that sprayed fuel over the outside of the airplane, which is contrary to the safety objective of the rules and contrary to the stated purpose of improving the odds of survival in a crash. In addition, the behavior of this fuel jettisoning system does not provide a level of safety equal to the rules from which Air Tractor Inc. requests exemption.
- The FAA understands the rationale for fuel jettisoning in an emergency landing as provided by Air Tractor Inc. However, it is not in the public interest to allow fuel to discharge on the aircraft and to allow fumes or fuel to enter the aircraft
- The applicant has not provided information on how testing at a reduced weight would be in the public interest, how it would not adversely affect safety, or how the exemption provides a level of safety equal to that provided by the rule.

The FAA's Decision:

In consideration of the foregoing, I find that a grant of exemption would not be in the public interest or maintain the level of safety required by the rule from which the exemption is sought. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, as amended, delegated to me by the Administrator (14 CFR § 11.91), the petition of Air Tractor, Inc. for an exemption from 14 CFR, part 23, §§ 23.1001, paragraphs (b), (c)(2) and (c)(3) is hereby denied.

Issued in Kansas City, Missouri on August 20, 2010.

s/

John R. Colomy
Acting Manager, Small Airplane Directorate
Aircraft Certification Service