Federal Aviation Administration

Memorandum

Date: NOV 19 2009

To: General Aviation and Commercial Division of Flight Standards Service

From: Rebecca B. MacPherson, Assistant Chief Counsel, AGC-200

Prepared by: Robert Hawks, Attorney, AGC-240

Subject: Applicability of 14 C.F.R. part 101 (Moored Balloons, Kites, Unmanned Rockets and Unmanned Free Balloons) to parasails and parasail operations

On March 18, 2004, there was a collision at Gulf Shores, Alabama, involving a parasail operation and an aircraft banner-towing operation. Inspectors from the Alabama Flight Standards District Office and the Coast Guard subsequently investigated this incident. The investigators defined parasails as parachutes that are towed by a boat, an automobile, or other means on the surface and are held aloft only by the wind provided by the surface vehicle's motion. The investigators found that parasails are being operated along the coasts of Alabama and Florida at altitudes exceeding 1200 feet, and that there is an inherent risk of collisions between parasails and aircraft, including banner tow, military, and search and rescue aircraft, along the coast.

The investigators concluded that there are no regulations in 14 C.F.R. specifically referring to the operation of parasails. Accordingly, they made four recommendations to resolve the identified safety problem:

> (1) Expand the definition of a kite or moored/tethered object to include "parasail" thus making parasail operations subject to the restrictions of 14 C.F.R. part 101 regarding altitudes and tow line markings. Recommendation 04.101.
>
> (2) Establish altitude restrictions for the operation of parasails in the vicinity of airports (Class C, D, and E surface areas or approach corridors). Recommendation 04.102.
>
> (3) Establish an addendum to the SPM [Safety Program Manager] program for awareness training for pilots operating in the vicinity of parasail operations. Recommendation 04.103.

(4) Include a training requirement for banner tow pilots operating in areas where parasails are operated. Recommendation 04.104.

The FAA Flight Standards Service has developed a safety awareness program concerning parasail operations to implement Recommendations 04.103 and 04.104. To respond to Recommendations 04.101 and 04.102, the FAA Flight Standards Service has requested a legal interpretation regarding whether parasails and parasail operations already are regulated as a kite or kite operation under 14 C.F.R. part 101.

An "aircraft" is defined in 14 C.F.R. § 1.1 as "a device that is used or intended to be used for flight in the air." A "kite" is defined in § 1.1 as "a framework, covered with paper, cloth, metal, or other material, intended to be flown at the end of a rope or cable, and having as its only support the force of the wind moving past its surfaces."

The FAA previously has interpreted devices similar to a parasail to be included within the definition of a kite. For example, the FAA concluded that a gyro-glider, which can carry a person aloft, operated by means of a towline attached to a vehicle on the surface is a kite. *See* 22 FR 5978, 5978 (Jul. 30, 1957) (interpreting then applicable 14 C.F.R. § 48.1). That interpretation also stated that the device would be considered an aircraft, and thus certificated and operated in accordance with applicable regulations, if operated in free flight. *Id.* That conclusion established free flight rather than conveyance of a person as the line between a kite and an aircraft. Following that rationale, the FAA interpreted that a hang glider flown at the end of a rope or cable is a kite. *See* Interpretation to Mark S. Dodge (Mar. 25, 1975). Although it declined to do so for those circumstances, the FAA explicitly stated that it could determine that a tethered device is an aircraft. *Id.*

Based on these previous interpretations, a parasail, as defined for this interpretation, is not an aircraft because it is not used or intended for flight because it is held aloft resulting only from its tether to a surface vehicle. Accordingly, the portions of 14 C.F.R. that regulate aircraft and aircraft operations are inapplicable to parasails and parasail operations. However, the FAA reserves its discretion to determine in the future that a tethered device could be an aircraft and subject to applicable regulations for aircraft.

The parasail defined during the investigation falls within the definition of a "kite" because it is a parachute held aloft by the wind resulting from the movement of the boat towing it. Additionally, a parasail is similar to other objects previously determined to be kites. Accordingly, parasails and parasail operations are subject to the FAA regulations applicable to kites.

The Civil Aeronautics Board, the predecessor to the FAA, began regulating kites in 1954 to the extent that they pose a hazard to the flight of aircraft. *See* 19 FR 7719, 7720 (Nov. 30, 1954). The FAA continues to regulate kites only to the extent that they are objects in the airspace. Those regulations currently are prescribed in 14 C.F.R. part 101, subpart B, which apply to kites and moored balloons. Section 101.13 states, in relevant part, that no person may operate a kite less than 500 feet from the base of any cloud, more than 500 feet above the surface of the earth, from an area where the ground visibility is less than three miles, or within five miles of the boundary of any airport. Section 101.15 states, in relevant part, that no person may operate

a kite more than 150 feet above the surface of the earth unless, at least 24 hours before the operation, the operator provides the following information to the FAA air traffic control facility that is nearest to the place of intended operation: the names and addresses of the owners and operators, the size and weight of the kite, the location of the operation, the height above the surface at which the kite is to be operated, and the date, time, and duration of the operation. For daytime kite operations (those between sunrise and sunset), section 101.17 requires, in relevant part, that the kite's mooring lines "have colored pennants or streamers attached at not more than 50 foot intervals beginning at 150 feet above the surface of the earth and visible for at least one mile." For nighttime kite operations (those between sunset and sunrise), section 101.17 requires, in relevant part, that the kite's mooring lines are lighted in a manner consistent with FAA lighting requirements for obstructions to air navigation.