

PART 31—AIRWORTHINESS STANDARDS: MANNED FREE BALLOONS

Subpart A—General

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APPENDIX A TO PART 31—INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

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§ 31.1 Applicability.

(a) This part prescribes airworthiness standards for the issue of type certificates and changes to those certificates, for manned free balloons.

(b) Each person who applies under Part 21 for such a certificate or change must show compliance with the applicable requirements of this part.

(c) For purposes of this part—

(1) A captive gas balloon is a balloon that derives its lift from a captive lighter-than-air gas;

(2) A hot air balloon is a balloon that derives its lift from heated air;

(3) The envelope is the enclosure in which the lifting means is contained;

(4) The basket is the container, suspended beneath the envelope, for the balloon occupants;

(5) The trapeze is a harness or is a seat consisting of a horizontal bar or platform suspended beneath the envelope for the balloon occupants; and

(6) The design maximum weight is the maximum total weight of the balloon, less the lifting gas or air.

[Doc. No. 1437, 29 FR 8258, July 1, 1964, as amended by Amdt. 31-3, 41 FR 55474, Dec. 20, 1976]

Subpart B—Flight Requirements

§ 31.12 Proof of compliance.

(a) Each requirement of this subpart must be met at each weight within the range of loading conditions for which certification is requested. This must be shown by—

(1) Tests upon a balloon of the type for which certification is requested or by calculations based on, and equal in accuracy to, the results of testing; and

(2) Systematic investigation of each weight if compliance cannot be reasonably inferred from the weights investigated.

(b) Except as provided in § 31.17(b), allowable weight tolerances during flight testing are +5 percent and -10 percent.

[Amdt. 31-4, 45 FR 60179, Sept. 11, 1980]

§ 31.14 Weight limits.

(a) The range of weights over which the balloon may be safely operated must be established.