



AEROSPACE RECOMMENDED PRACTICE

ARP1354™

REV. B

Issued 1976-01
Revised 1991-10
Cancelled 2019-03

Superseded by AS1354

Individual Inflatable Life Preservers

RATIONALE

ARP1354, "Individual Inflatable Life Preservers," needs to be cancelled since the requirements in this ARP have been totally superseded by the requirements in the much more comprehensive and recently published standard AS1354, "Individual Inflatable Life Preservers." Both documents address the design of life preservers, and AS1354 was developed with the intention of having it supersede ARP1354, hence the same document number. As a result, all the appropriate requirements in the ARP have been carried over to the new AS (i.e., there are no aspects of the ARP that are not covered by the superseding AS). This is why the ARP1354 has not been updated since 1991. Therefore, ARP1354 should be considered for "Archival Use Only."

CANCELLATION NOTICE

This Technical Report has been declared "CANCELLED" as of March 2019, and has been superseded by AS1354. By this action, this document will remain listed in the respective index, if applicable. Cancelled Technical Reports are available from SAE.

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1. SCOPE:

- 1.1 This Aerospace Recommended Practice (ARP) provides criteria for operational characteristics to be considered in the design of individual, inflatable life preservers intended for air transport safety.
- 1.2 The characteristics outlined herein shall apply, where applicable, to the design of individual life preservers to be utilized by four basic classifications of users as follows:
 - a. Adults
 - b. Combination adult/child
 - c. Children
 - d. Infants/small child
- 1.3 This ARP does not intend to specify nor limit the designer as to particular configuration, material, hardware, attached equipment, or mode of operation of the life preserver except as required to fulfill the intent of the criteria established herein.

2. REFERENCES:

TSO-C85

3. DETAILED RECOMMENDATIONS:

3.1 Buoyancy:

- 3.1.1 The following minimum buoyancy schedule in Table 1 shall apply to the particular user-type life preserver shown:

TABLE 1

User Type	Minimum Buoyancy in Fresh Water at 72°F (22.2°C) lb (kg)
Adult	35 (15.88)
Combination Adult/Child	35 (15.88)
Child	25 (11.34)
Infant/Small Child	20 (9.07)

NOTE: Users are defined as follows:

Infant: Small children unable to sit up by themselves, normally under 6 to 12 months.

Small Children: Able to sit up by themselves but under 24 months old and under 35 lb weight.

Child: Over 24 months old but under 13 years old with maximum weight of 90 lb.

Adult: 13 years of age or older and all weights.

- 3.1.2 The buoyancy of the life preserver shall be measured in terms of absolute buoyancy and be determined in a manner consistent with Archimedes' principle of displacement. If weights are used, the volume and specific gravity of that portion of the weight that is submerged must be considered. Determination of buoyancy by volume displacement must consider the weight and specific gravity of the jacket material and inflation systems.