



AEROSPACE RECOMMENDED PRACTICE

ARP4102™/10**REV. C**

Issued 1988-07
Reaffirmed 2007-07
Revised 2026-05

Superseding ARP4102/10B

Traffic Display and Collision Avoidance Systems

RATIONALE

This document has been updated with recommended practices for optimizing new technologies, such as ADS-B traffic displays, as well as rewording or updating previous recommended practices so that they are more clearly understood.

1. SCOPE

This document presents criteria for flight deck controls and displays for Airborne Collision Avoidance Systems.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 1-877-606-7323 (U.S. and Canada only) or 1-724-776-4970 (outside U.S. and Canada), www.sae.org.

ARP4101	Flight Deck Layout and Facilities
ARP4102/4	Flight Deck Alerting System (FAS)
ARP4102/7	Electronic Displays
ARP4105	Abbreviations, Acronyms, and Terms for Use on the Flight Deck
ARP4153	Human Interface Criteria for Collision Avoidance Systems in Transport Aircraft
ARP5365	Human Interface Criteria for Cockpit Display of Traffic Information
AS8034	Minimum Performance Standard for Airborne Multipurpose Electronic Displays

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Documents

Standard, visit Sharing Hub

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 FAA Publications

Available from Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591, Tel: 866-835-5322, www.faa.gov.

AC 20-131A Airworthiness Approval of Traffic Alert and Collision Avoidance Systems (T-CAS II) and Mode S Transponders

AC 90-120 Operational Use of Airborne Collision Avoidance Systems

2.2.2 ICAO Publications

Available from International Civil Aviation Organization, 999 Robert-Bourassa Boulevard, Montréal, Québec H3C 5H7, Canada, Tel: +1 514-954-8219, www.icao.int.

Doc 9863 Airborne Collision Avoidance System (ACAS) Manual

2.3 Definitions

2.3.1 FALSE ADVISORY

A Resolution Advisory or Traffic Advisory given when the design criteria for issuing such an advisory do not actually exist.

2.3.2 MISSED ADVISORY

A Resolution Advisory or Traffic Advisory not given when the threat of a potential collision does exist.

2.3.3 NO BEARING TRAFFIC

A Resolution Advisory or Traffic Advisory generated by traffic from which no directional information can be derived.

2.3.4 NUISANCE ADVISORY

A Resolution Advisory or Traffic Advisory given in accordance with the design criteria but when the threat of a potential collision does not exist.

2.3.5 OTHER TRAFFIC

Any other traffic within the range and selected altitude band of the display.

2.3.6 OWNERSHIP

One's own aircraft as represented in a traffic collision avoidance system.

2.3.7 PROXIMATE TRAFFIC

Any traffic detected by equipment on board the ownship that is not generating a Resolution Advisory or Traffic Advisory but is within 6 nautical miles horizontally and within ± 1200 feet vertically.