Minimum Operational Performance Standards for Traffic Alert and Collision Avoidance System II (TCAS II) Airborne Equipment

Volume II

formulation with informational commentary text through out its four sections: Environment, Collision Avoidance System (CAS), CAS Macros, and CAS Functions.

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1. ENVIRONMENT

This chapter describes assumptions regarding the behavior of the non-Collision Avoidance System (CAS) components of the TCAS II system. The CAS requirements are based on these assumptions. Effects of their violation should be carefully considered. This is the first chapter to use state chart notation, which is described in Appendix D. Symbols used in this document are defined in Appendix E. When comparing or assigning numerical values, the units of measurement must be considered. For example, 10 ft is less than 1 nmi.

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1.1 Components

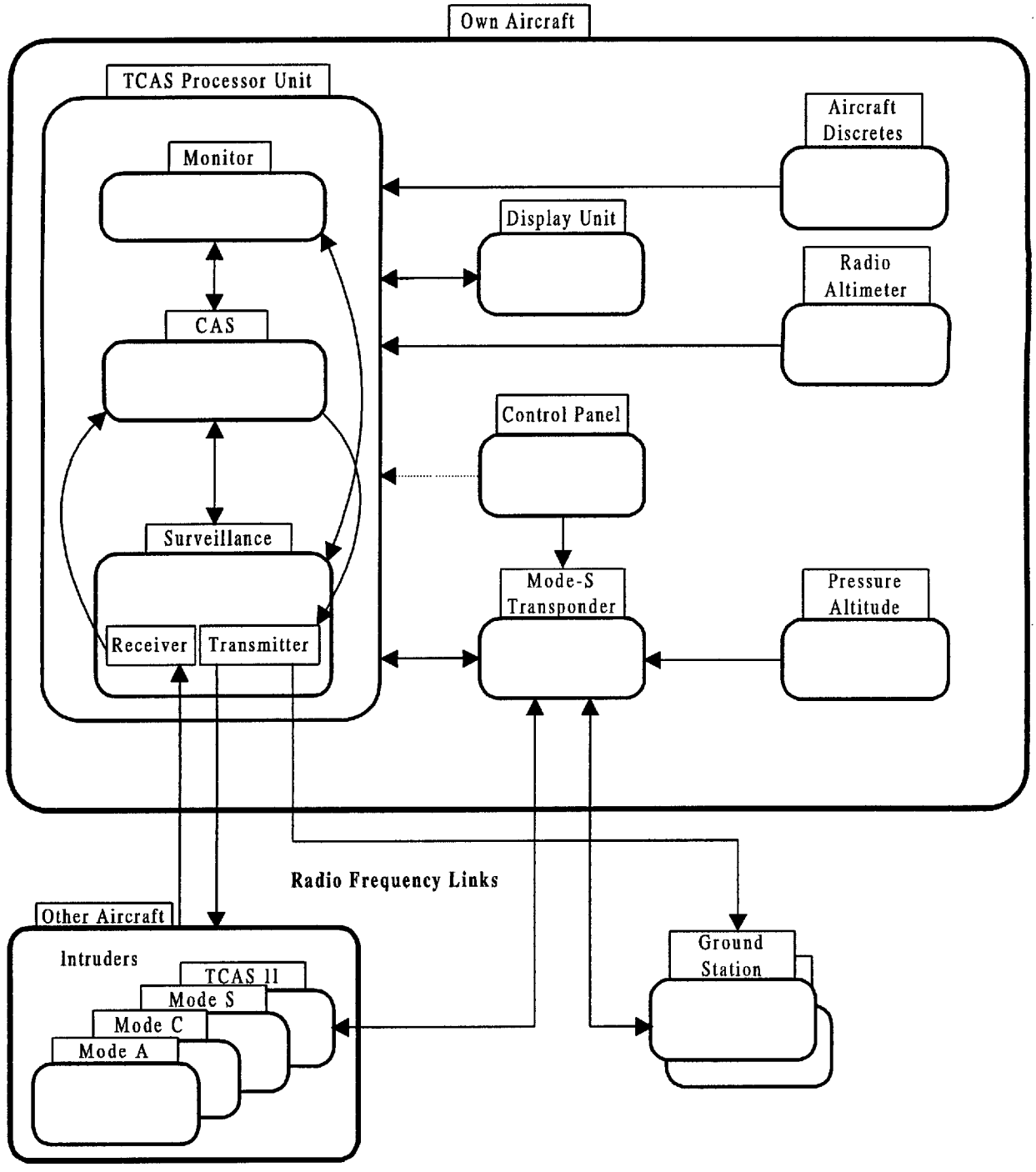


Figure 1-1: TCAS System Components

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1.2 Input Interfaces

This section describes CAS input interfaces.

Note: The Trigger Event, RECEIVE, is asynchronous with TCAS. The synchrony hypothesis explained in Appendix D, Section D.10.1, assumes that TCAS is infinitely faster than the environment, and hence TCAS response to an external message or data is always generated in the same step that the message or data is introduced.

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