

## **Exhibit A – Product Description**

The TCAS II is an airborne traffic alert and collision avoidance system that interrogates ATC transponders in nearby aircraft and uses computer processing to identify and display potential and predicted collision threats. The system protects a volume of airspace around the TCAS II equipped aircraft and supplies appropriate aural and visual advisories to the flight crew to provide adequate separation when the computer analysis of the intruding aircraft transponder replies predict a penetration of the protected airspace. The system provides two types of advisories: traffic and resolution. Traffic advisories indicate the relative positions of intruding aircraft that are approximately 35 seconds from the closest point of approach and may require a resolution advisory a short time thereafter. Traffic advisories also provide the flight crew the opportunity to visually acquire the intruding aircraft. When the computer predicts that the intruder aircraft is within approximately 25 seconds from the closest approach, a resolution advisory will produce a threat resolution in the form of a vertical maneuver that will increase separation.

The system provides traffic and advisory flightdeck displays. The traffic advisory display indicates the relative position of proximate ATC transponder equipped aircraft. The resolution advisory display for each pilot indicates the appropriate vertical maneuver to avoid threat. The TCAS II aircraft must be equipped with a Mode S ATC transponder, which provides necessary air-to-air communications, for coordinating the resolution maneuvers between TCAS equipped aircraft. The Mode S transponder also provides discrete address replies to interrogations from ground stations and other TCAS II equipped aircraft and has the capability to respond to Mode A and Mode C interrogations.

The TCAS II system can only generate resolution advisories for intruders with operative Mode S or Mode C transponders, transponders that provide information on the altitude of the intruder. Traffic advisories that display the relative position of the intruder can be generated for aircraft with operative Mode S, Mode C, or Mode A transponders. The TCAS II equipment functions as a supplement to the pilot who, with the aid of the ATC system, has the primary responsibility for avoiding mid-air collisions. The TCAS II system provides no indication of traffic conflicts with aircraft without operative transponders.