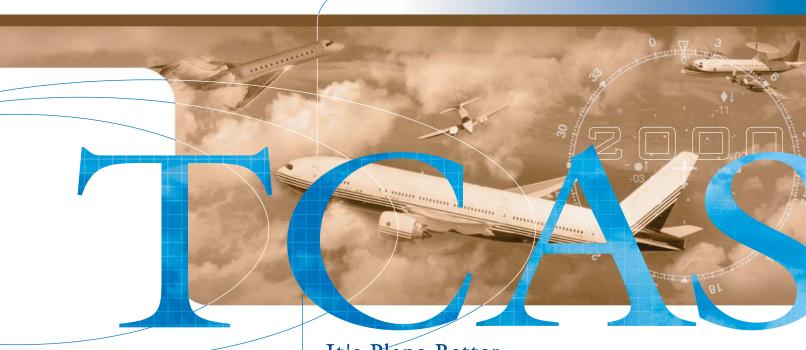


# TCAS 2000

TRAFFIC ALERT AND COLLISION AUDIDANCE SYSTEM



Patented amplitude monopulse directional antenna

Superior intruder tracking performance

Extended range surveillance (up to 80 nm active, 100+ nm passive)

Significant growth capacity for additional safety functions

High reliability through the use of advanced design techniques

Standard aid for enhanced CNS/ATM visibility and traffic separation

Easy operational software upgrades via ARINC 615 data Loader

Fully compatible with currently available Mode S transponder systems

# It's Plane Better

Over 6,000 TCAS 2000 computer units have been delivered to almost 200 operators worldwide since the product's debut in 1997. The TCAS 2000 is offered by most OEMs, including Airbus, Boeing, Bombardier, Cessna, Dassault, Embraer, Gulfstream, Raytheon, Antonov, Ilyushin, and Tupolev. Airline industry leaders such as American Eagle, British Airways, Federal Express, KLM, Northwest Airlines, Qantas, SAS, Saudia, SWISS Airlines, UPS, U.S. Navy, and U.S. Air Force have selected TCAS 2000 as their surveillance system of

The TCAS 2000 system provides pilots with the highest bearing determination accuracy (2° rms vs. 9° TSO specification) and extended range surveillance (up to 80 nm active, 100+ nm passive) available today. Enhanced ATCRBS Range, Altitude and Bearing Tracker algorithms developed by ACSS provide greater than 99% track probabilities, while reducing false tracks to less than 0.5% (60% better than allowed by the FAA Advisory Circular No. 20-131A).

ACSS has over 20 years of TCAS system development experience, tracing its lineage to the original Sperry Dalmo Victor TCAS II development effort. The TCAS 2000 system meets or exceeds the latest requirements of RTCA DO-185A (Change 7 to Minimum Operating Performance Standards for TCAS equipment) and ARINC 735A (ACAS II ARINC Standard), and is fully compliant with the ICAO SARPS (Standards and Recommended Practices) and associated ACAS II mandate.

Only ACSS offers customers the industry's best TCAS antenna technology. Amplitude monopulse sensing offers significant user benefits, such as insensitivity to cable length disparity of up to 7 feet and tolerance to off-frequency replies. The ACSS amplitude monopulse system provides instantaneous 360-degree signal reception with no scanning thus allowing for rapid intruder acquisition and maximum warning time.

The TCAS 2000 delivers significantly improved reliability (as compared to the 1st generation TCAS II systems) and provides substantial operating cost savings through its reduced weight and power dissipation. Other features — such as internal data recorder with external PCbased data analysis tool and the ability to perform on-board software upgrades — give operators an even greater degree of cost and operations control.

The TCAS 2000 has undergone full Highly Accelerated Life Testing (HALT) during its development, and each production unit is subjected to Highly Accelerated Stress Screening (HASS) before shipment. The TCAS 2000 fully meets DO-160C environmental qualifications that allow for installation outside the aircraft pressure vessel.

The TCAS 2000 system is designed for future functionality requirements, such as Change 8, Airborne Separation Assurance System (ASAS) and ADS-B hybrid surveillance (ADS-B extended squitter receive capability is already functional). The TCAS 2000 computer is easily upgradeable to  $T^2CAS^{TM}$  by adding the innovative Thales Avionics Ground Collision Avoidance Module TAWS system to the TCAS 2000 LRU.

# TCAS 2000 ... It's Plane Better







ACSS-002-01-03 @ACSS, Dec. 2002

#### TCAS R/T

Part Number RT-950 (6 MCU): 7517900-1000X RT-951/(4 MCU): 7517900-5500X

Physical Size

Dimensions

Weight

Mounting Cooling

#### Certification

Environmental Specifications

TSO Software

ADS-B Capability

ADS-B Receiver Operating Altitude Operating Temperature Storage Temperature

Power

Power Consumption

Maintenance

Portable Data Loader

DO-160C

4 or 6 MCU

C119b

DO-178B Level B

Meets 1090 MOPS requirement for

Per ARINC 600/404 for 6 MCU

No forced air required for 4 MCU (internal fan)

extended range operations

15.8 lbs (7.16 kg) (6 MCU) 14.7 lbs (6.66 kg) (4 MCU) ARINC 600 6 OR 4 MCU Mount

Availability > 95%

Sea Level to 55,000 feet

-55 to 70 degrees C

-55 to 85 degrees C

28 V DC or 115 VAC

Nominal power consumption 65 watts Supports OEM Maintenance Computer

Interfaces

ARINC 615

## TCAS 2000 Suite

Antenna

Processor Unit RT-950 or RT-951

Mode S Transponder RCZ-852 (Business & Regional Transponder)

XS-950 (Air Transport Data Link Transponder)

XS-950SI (Military Mode S/IFF Transponder)

AT 910

Displays Various

Controls Various

Aviation Communication & Surveillance Systems

ACSS, an L-3 Communications & Thales Company, is a leader in safety avionics systems. ACSS products include the TCAS 2000 and TCAS 1500 traffic alert and collision avoidance systems, a family of Mode S transponders, the T²CAS™, a combined traffic and terrain collision avoidance system, and MASS™, an enhanced TCAS system for military operations. More than 9,000 units of ACSS's TCAS products are operating in commercial, corporate and military aircraft.

### REGIONAL, BUSINESS & MILITARY CUSTOMERS

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#### WORLDWIDE CUSTOMER SERVICE & SUPPORT

ACSS products are based on proven technology to provide you exceptionally high reliability and simplified maintenance. Support for engineering, logistics, commercial and repair support are available through our worldwide network of Customer Service Managers and Support Centers.

Customer Services are provided to aircraft manufacturers and operators. Onsite assistance is available to support system integration, troubleshooting, analysis, rework, retrofit and repair of ACSS equipment.

Services include AOG/Emergency Services, Repairs, Maintenance Agreements, Technical Support, Publications, Training, and Database Service.