AIR TRAFFIC MANAGEMENT

AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST

Supplying ATM systems around the world for more than 30 years

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The increasing air traffic aims for new automatic equipments.

Introduction

The Indra’s ADS-B ground station is an equipment which brings the benefits of the Automatic Dependent Surveillance Broadcast with the best cost-performance ratio in the market. This system has been entirely developed and manufactured by Indra Sistemas S.A. complying with the most exigent and recognized standards.

Key benefits

- Support enhanced traffic situational awareness for ATC, flight crews and others (ex. airport scenario agents)
- Separation standards
- Cost effectiveness
- Approaches in low-visibility conditions
- Enhanced capability to “see and avoid” adjacent traffic
- Provide surveillance coverage in non-radar airspace
- Aircraft and vehicular surface traffic management
- Fleet tracking for airlines

System features and parameters

- ADS-B, TIS-B and FIS-B applications and services
- Compact equipment based in PC architecture with fully operability
- Omnidirectional and sector antennas for short and long range (250 nm)
- Use of latest-generation signal and data processors for processing and tracking the signal. The decoder provides enhanced probability of detection at low signal strengths, which translates into better long range performance and coverage (300 aircrafts)
- Low-cost system that can be networked to provide terminal, approach and en-route surveillance
- Local and remote control and supervision based on COTS products
- Intelligent BITE (Built-in Test Equipment) with diagnostic remote control and performance supervision
- Stand alone system or complementary to a MSSR, SMR or PSR
- Reliable operation with simple maintenance

High technology

- Fault resistant
- The ADS-B assembly corresponds to a modern station architecture, unmanned, with a user friendly latest-generation equipment, full local and remote management

Reliability and low life-cycle cost

- High MTBIF and MTBF values
- Simple maintenance and adjustment tasks
- Lower annual cost in servicing time and spares which greatly reduces the life-cycle cost
- Low MTTR

Community

- Conceived with the same concepts that have provided optimum results for other equipments developed by Indra
- The ADS-B station can be easily integrated in surveillance systems like MSSR, SMR or PSR

Operative capability

- Massive digital processing, compared to other traditional implementations
- Powerful solution with a view to the future
- EUROCONTROL CASCADE Stream I and Stream II applications

ACC Canary Island
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System requirements

Integrity
• Supervision to detect failures to improve the integrity level of the ground station

Reliability
• Adaptable items to ensure fulfillment of requirements

Maintainability
• Enhanced maintainability
• Low MTTR

Availability
• High MTBF
• Very high real operational time

Communality
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