Australian ADS-B Programs

From the web 2007-10-31:
http://www.airservicesaustralia.com/pilotcentre/projects/adsb/default.asp/

Airservices Australia is expanding its Automatic Dependent Surveillance Broadcast (ADS-B) activities in order to promote and exploit the safety and operational benefits made possible by the new data link technology. Four correlated ADS-B programs are currently in various stages of development. A brief synopsis of each program is outlined below. For more information, click on the associated links.

1. **Australian Transition to Satellite Technology (ATLAS)**

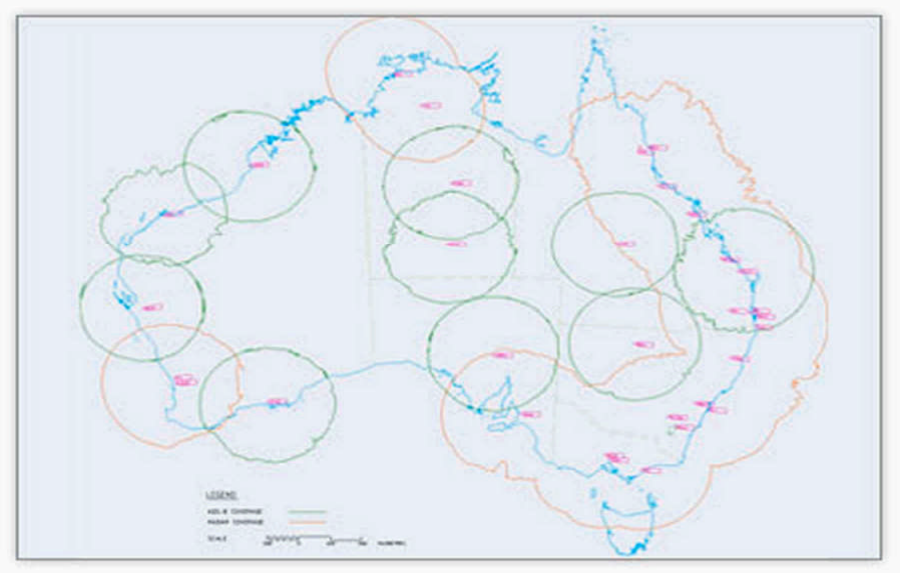
Recent advances in the use of Global Navigation Satellite Systems (GNSS) for "only means" navigation and the use of Automatic Dependent Surveillance Broadcast (ADS-B) for radar-like services has made these two technologies viable options to advance Australian navigation and surveillance infrastructure into the 21st century. Australian Government aviation agencies are seeking comment on the proposed wider application of ADS-B and GNSS technologies to replace some of the existing radar and navaid network. A Joint Consultation Paper has been prepared by Airservices Australia, the Australian Defence Force, the Civil Aviation Safety Authority and the Department of Transport and Regional Services. The paper sets out the proposal, including discussion of proposed funding arrangements and regulatory changes. The paper and supporting material is available from:

http://www.dotars.gov.au/aviation/airspace_reform/satellite_tech.aspx.
Status: Joint Consultation Paper published. Response period closes 31 October 2007

2. **Upper Airspace Program**

A program aimed at providing near-term safety and operational benefits in high level, non-radar airspace. Includes installation of approximately 28 ADS-B ground stations, strategically located across Australia to provide air traffic surveillance above 30,000 feet in continental airspace outside of radar coverage.

Status: In progress - **10 of 28 ground stations commissioned and in use**



3. **Research and Development Programs**

R & D activities to facilitate the Lower Airspace ADS-B Programs. Activities include development of low-cost ADS-B transmitters for general aviation aircraft, air to air ADS-B receivers and cockpit displays to provide airborne traffic information to pilots.

Status: In progress

4. **International Activities**

Airservices Australia on behalf of Australia is participating in a number of international forums and panels developing standards and procedures for the implementation of ADS-B technology for air traffic control. Airservices Australia also provides consultancy services in support of ADS-B programs in other States.

Status: In progress

General

10 of 28 ADS-B ground stations are now commissioned and in use. The latest stations are at Karratha, Billabong (near Kalbarri, WA) Alice Springs, Broome and Tennant Creek.

This will be the first time these areas have had the benefit of surveillance. ADS-B allows air traffic controllers to precisely track aircraft without the need for conventional radar.

The new, low-cost technology is set to provide additional safety and operational benefits to aircraft operating over remote regions of Australia where radar is not practical. It will provide automated safety alerts if an aircraft comes into close proximity with other ADS-B equipped traffic or terrain, or deviates from an assigned route or altitude.

A number of already approved ADS-B equipped aircraft operated by Qantas and Virgin Blue will benefit from the new coverage down to the ground.

Thousands of ADS-B flights will benefit from the additional coverage over major reporting points on international air routes. Even aircraft which are not yet ADS-B equipped have the potential to benefit from traffic advisories from ADS-B equipped aircraft in the air traffic mix.
