



TC Communications equips Victorian authorities with real-time satellite data

[Fire fighting aircraft given access to global Inmarsat satellite network](#)

Fire-spotting aircraft managed by Victorias State Aircraft Unit (SAU) have been given the ability to share to real-time data on fire activity using satellite data feeds.

The new solution provides commanders at any of the 43 incident control centres throughout the state with access to real-time snapshots of fire activity, enabling more effective fire fighting strategies. The solution also provides simultaneous voice and data communications at broadband speeds direct from the plane into headquarters.

The new functionality follows the deployment of Australias first SwiftBroadband Lite terminals on the aircraft from Australian satellite communications specialist TC Communications, which gives the SAU access to Inmarsats I-4 satellite network.

TC Communications is an Inmarsat Gold Partner and provides Australian businesses with access to Inmarsats global satellite communications network. In December 2009, the company installed the first of the SwiftBroadband Lite terminals into SAUs Super King Air B200 plane. The second terminal was installed in late February into SAUs Cessna 404 Titan plane.

For us, this means providing regular real-time snapshots of a fire zone regardless of how remote the location, says Adam Damen, Technical Systems Specialist, SAU. The system has also been designed to allow for remote access to fire data which means we can assist other regions with their fire fighting capabilities.

We recently sent one of our planes to Tasmania to assist with a small bushfire north west of Hobart. We were able to fly down, transmit the data and fly back to the mainland without ever having to land the plane a huge success both in terms of the cost of the mission and the capability provided.

As well as mapping fire activity, Victorias fire agencies also use the technology to assist in planning for resources needed to fight fires.

In January, we responded to a call for assistance in the Mallee region, which borders South Australia and New South Wales in Victorias North West, says Damen. We were able to assist the fire fighting authorities by mapping the area they had water bombed to see how effective it was in containing the fire. We were also able to provide information to help the authorities plan for resources needed to continue fighting the fire the next day.

Damen says that aircraft have played an important role in fire fighting for well over two decades, and while fire fighting technology has come a long way over the years, the catastrophic events surrounding the February 2009 bushfires in Victoria have required new approaches to firefighting.

I recall a period in the 1980s when firefighting planes would fly over a fire zone and print the images onto spools of paper, which would then be interpreted and the findings put into a tube and dropped onto an empty cricket pitch for pick-up.

In the 2000s, we were able to transfer the fire data via radio modems, which was fine until we got new planes and our flying speeds were faster than the communications system, he adds. The solution then was to orbit in circles over the radio sites until the data was transferred, or land and deliver the data via USB before taking off again to fly back over the fire site. Not only was this very expensive in terms of the cost of each sortie, but it was also costly in terms of the age of the data, which was often a few hours old by the time it reached the command posts for analysis.

The launch of Inmarsats I-4 network in February 2009 delivered satellite mobile broadband services to the whole of Australia, however aeronautical satellite communications have traditionally been a luxury only available to larger aero platforms and budgets.

TC Communications provided SAU with a solution based on the Thrane & Thrane Aero SB-LITE terminal, which is approximately half the size and weight of traditional satellite communications systems. This gives small-to mid-size aircraft access to the type of technology which was previously unavailable due to the size of their platforms.

Todd McDonell, CEO of TC Communications, says providing satellite communications capabilities to small aircraft will assist Australian authorities manage the countrys unique environmental factors that cause catastrophic natural disasters.

We have had great success over the years in installing aircraft communications systems on larger aircraft like those used by the Australian Border Protection Command, says McDonell. However the current advances in technology allow us to take satellite communications capabilities to a much broader market and deliver the benefits to the wider community.

As an immense landmass with many remote regions, small-to mid-size aircraft are the preferred aero platform in Australia, and the potential for productivity and economy of this type of aircraft has improved significantly with the ability to install mobile broadband capabilities.

The Victorian SAU project and the solution provided by TC Communications is the perfect example of how Inmarsat and SwiftBroadband benefits a much greater range of aircraft operators than has ever been possible before with previous generations of satellite services, says David Coiley, Inmarsats Aeronautical Business Director. TC Communications has delivered a state-of-the-art solution for SAU, fully exploiting SwiftBroadbands higher data rates and smaller aircraft equipment.

The SAU is an initiative of the Country Fire Authority (CFA) and the Victorian Department of Sustainability and Environment (DSE). The SAU provides

specialist aviation resources to satisfy fire and land management objectives in the state of Victoria. The SAU maintained a fleet of 40 aircraft in the 2009/10 fire season, including one DC10 air tanker, two Erickson Aircranes, and the two infrared scanning aircraft the Super King Air B200 and Cessna 404 Titan.

About TC Communications

TC Communications is the pre-eminent Satellite Communications specialist in the SE Asian region. An Australian owned and managed company, TC is the only Gold Accredited Inmarsat Service Provider in the region and is a Quality Assured Company with membership to the TIO. Well recognised as being on the leading edge of technological advances in mobile satellite communications across air land and sea, TC has vast experience in the aeronautical satcom market and has built up an international reputation due to the success of its solutions on systems such as those belonging to Australia's Border Protection Command, The Indonesian Air force and Taiwanese NFA to name but a few. TC has mature relationships with leading players in the industry such as Inmarsat and Thrane and Thrane - thus allowing the best possible bespoke solution to be developed for this very niche sector. www.tc.com.au

About Inmarsat

Inmarsat plc (LSE: ISAT) is the leading provider of global mobile satellite communications. Since 1979, Inmarsat has been providing reliable voice and high-speed data communications to governments, enterprises and other organisations, with a range of services that can be used on land, at sea or in the air. The company's services are delivered through a global network of more than 500 distribution partners and service providers operating in 180 countries. For the half-year ended 30 June 2008, Inmarsat plc had total revenue of US\$ 485.5 million. More information can be found at www.inmarsat.com.

About Thrane & Thrane

Thrane & Thrane is the world's leading manufacturer of equipment and systems for global mobile communication based on sophisticated satellite and radio technology. Since its incorporation in 1981, the company has established a strong position within global mobile communication solutions based on the Inmarsat system, and today Thrane & Thrane provides equipment for maritime, land-based and aeronautical use. The company's communication products are sold throughout the world under the brands Thrane & Thrane, EXPLORER and SAILOR through distributors and partners. Thrane & Thrane is listed on NASDAQ OMX in Copenhagen (THRAN). www.thrane.com.