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Australian commanders gain real-time view of bush fires

Airborne fire-fighters in the Australian state of Victoria can now transmit vital information on the location and extent of bushfires in real time thanks to a compact SwiftBroadband installation by solutions provider TC Communications.



The company, based in New South Wales, has just finished integrating Thrane & Thrane's Aero-SB Lite SwiftBroadband system with the infra-red air-to-ground imaging equipment in the pair of fire-spotting aircraft operated by Victoria's State Aircraft Unit.

The aircraft – a twin-turboprop Beechcraft King Air 200 and a twin-piston Cessna 404 Titan - are equipped with infra-red line-scanners that can see through smoke and mist to produce clear video and stills of fire boundaries.

Paper solution

Originally the images had to be delivered on paper or a USB drive to personnel on the ground and then carried to the incident control centre – a process that could take hours.

"Now we can supply ground commanders with regular real-time images of the fire zone, regardless of how remote the location may be, so that they can refine their strategies," said SAU technical systems specialist Adam Damen.

"We recently sent one of the aircraft to Tasmania to help with a bushfire there. It flew down, gathered and transmitted the data, and flew back to the mainland without landing once – a huge success in terms of mission cost, time saved and capability provided."

On another occasion the SAU responded to a call for help in north-western Victoria. "We mapped the water-bombed area to see how effective it had been in containing the fire," Damen said. "And we provided information to help the authorities plan the resources needed to continue fighting the fire the next day."

Light is right

The Victorian authorities favour comparatively small and nimble aircraft for the fire-spotting role, so the satellite communications solution had to be correspondingly compact. Thrane & Thrane's Aero-SB Lite terminal is around half the size and weight of other systems.

As well as supporting the high-speed transmission of imagery, the system can be used for simultaneous voice calls and messaging between the crew and headquarters.