

# Submission to the Aviation Safety Regulation Review

Prepared for the Deputy Prime Minister and  
Minister for Infrastructure and Regional Development,  
the Hon Warren Truss MP.



Saab Australia Pty Ltd  
ABN 88 008 643 212

## COPYRIGHT

© All rights reserved. Intellectual Property rights in  
this document are owned by Saab Australia Pty  
Ltd [Saab]. Use of this material is not permitted  
without prior written consent of Saab.

This submission describes the Air Traffic Management capabilities resident within Saab with particular emphasis on how regulatory reform can facilitate the safe and expeditious implementation of emerging ATM technologies.

## **Introduction**

Saab supports the Government's commitment to a review of Aviation Safety Regulation in Australia. Saab also welcomes the opportunity to highlight to the Deputy Prime Minister areas in which we can enhance not only the safety but also the effectiveness of Australian aviation safety in the future.

Australia remains at the forefront of global aviation with an enviable aviation safety record. However, given the anticipated growth in traffic levels over the next twenty years not only within Australia but also the wider Asia Pacific, the safe and expeditious application of emerging technologies through a combination of Industry, Air Navigation Service Providers (ANSPs) and the Civil Aviation Safety Authority (CASA) will play a crucial role in allowing the system's capacity to meet the ever growing demand. New technology will be an essential enabler not only in complex capital-city airspace but possibly more so when we consider traffic growth in regional Australia. The regional aviation industry has frequently expressed concern that the costs of regulatory compliance will force them out from the marketplace. The advent of 'Fly In Fly Out' operations, particularly within some parts of Western Australia and Queensland, has led to passenger movements in rural areas increasing at rates well beyond those predicted and beyond those at which CASA must conduct some form of Aeronautical Study. The provision of air traffic services at several remote locations may soon become a necessity.

Saab is keen to contribute to any policy discussions on ways in which regulatory reform can contribute to enhancing aviation safety in these regional locations, without incurring what may be perceived as traditional costs resulting in untenable expenses for regional airlines.

## **Background**

The Swedish-based Saab Group employs approximately 14,000 people worldwide and generates annual revenues exceeding AUD\$4 billion. With operations and employees on all continents, Saab constantly develops, adopts and improves new technology to meet customers' changing needs

Saab has been based in Australia since 1988 but has been a supplier to the Australian Defence Force since the 1940's when Bofors guns were first fitted to Royal Australian Navy ships.

With a Head Office in Adelaide, Saab Australia (formerly Saab Systems) specialises in high technology, computer-based command and control systems for the defence forces. Through a separate company, Saab Security has developed technology for security and aviation in major installations such as prisons and airports.

Saab Asia Pacific is part of Saab's global marketing organisation which has its Australian office in Canberra. It provides the marketing point of contact for Saab operations in Australia comprising air traffic management (ATM) applications, defence command, control, communications and intelligence (C4I) systems, radars, weapons, training, deployable hospitals, and civil security.

## **Saab Air Traffic Management**

Saab offers a wide range of solutions to support the wider aviation industry ranging from air traffic management solutions to aircraft leasing and support. Rex Airlines continues to be the largest operator of Saab 340 aircraft in the world. It is within the realm of ATM however that Saab is in many ways making the greatest advances. Although Saab's organic ATM capability had been developing relatively quickly, in order to establish itself as a market leader, Saab acquired two leading ATM equipment providers. In August 2011, Saab acquired the former Sensis Corporation. The company, with its headquarters in Syracuse, NY, provides extensive engineering, manufacturing and lifecycle support services to many of the world's top militaries, civil aviation authorities and related organisations. Saab now has ATM products in over 200 locations worldwide and has systems operating with 18 of the 20 biggest ANSPs. This acquisition also means that Saab ATM is the leading supplier to Airservices Australia (AsA). In addition to the highly successful Integrated Tower Automation Suites (INTAS) that AsA are implementing in up to 28 Towers

across Australia, Saab are providing Runway incursion safety systems at Perth, Melbourne, Brisbane and Sydney. In November 2012, Saab also acquired the Holland Institute of Traffic Technology (HITT), a renowned leader in the provision of runway safety systems.

### **Remote Tower Technology**

It is with the introduction of Remote Tower technology however that Saab believes it can make a significant contribution to providing safe and cost effective ATC services in regional locations across Australia.

In 2006, Saab and the Swedish ANSP, LFV, embarked on a project named Remotely Operated Tower (ROT). The aim of the project was to prove that ATC Tower services could be safely provided from a location removed from the airport. Ängelholm airport was chosen as the target airport with the Remote Tower Centre (RTC) located at Malmö, approximately 100km away. The ROT trial was successfully completed in early 2009 and such was the success that the project was awarded the Jane's Airport Review Industry Award during the ATC Global 2010 exhibition in Amsterdam.

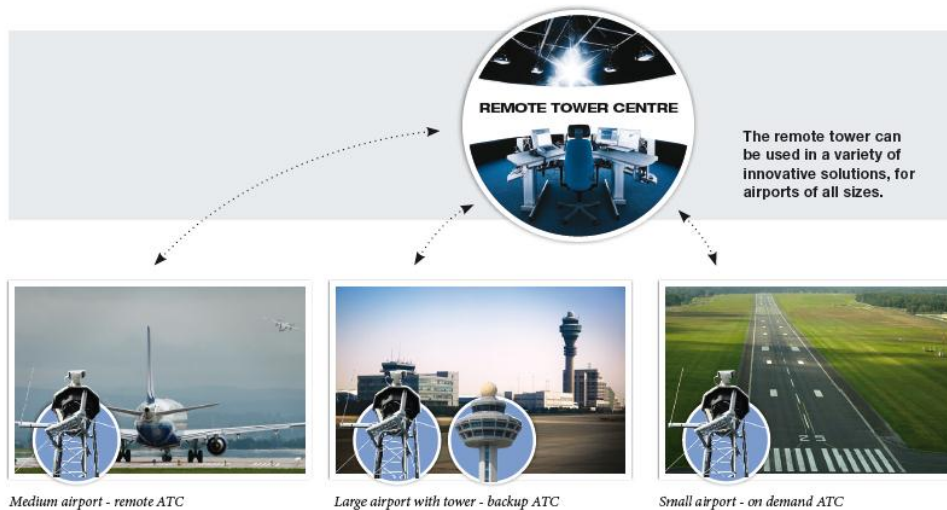


The Saab Remote Tower (r-TWR) concept is a game-changing initiative in air traffic control, providing benefits for airport owners, airlines and ANSPs alike. For the first time, high definition cameras are providing real time images, leading to safety levels being improved and services provided from a user-preferred location.

Remote Tower represents the perfect solution for:

- Provision of ATC services (ATS) at new or growing airports – enhances safety and reduces construction and maintenance costs

- Replacement of outdated Tower facilities – reduces ongoing maintenance and refurbishment costs
- Merging the provision of ATC services at two or more existing locations
- Provision of ATC services during contingency operations.



Although there is a clear financial benefit in not having to construct a traditional ATC Tower facility, the principal benefit associated with r-TWR is that it allows ATS to be provided quickly on demand, guaranteeing safe airport operations at locations where services may not currently be available. In the RTC, technologies have been developed to support the controller. Features such as on-screen label presentation to maintain traffic identification in poor weather conditions will increase the ATCO's situational awareness, thereby reducing workload.

Following on from the success of the Swedish trial, Saab was selected to deliver the world's first full-time Remote Tower facility to LFV. The facility includes a Remote Control Centre and two connected airports in northern Sweden. All implementation is complete and the Swedish regulator is in the process of issuing certification of the system. In neighbouring Norway, Saab is currently bidding on a tender that will provide for around 40 Remote Tower installations.

AsA quickly recognised possible applications of r-TWR in Australia and signed a contract with Saab to assess the viability of the technology in vastly different

