

Commissioner hearing for request for district plan change, variations and Notices of Requirement for designations in respect of Waikato Regional Airport proposed runway extension

Applicant and Requiring Authority:

Waikato Regional Airport Limited

Waipa District Council – Private
Proposed Plan Change No. 69 and
designation requirements

Waikato District Council – Proposed
District Plan Variation No. 14

Hamilton City Council – Proposed
District Plan Variation No. 22

STATEMENT OF EVIDENCE OF ANDREW TOOP

1. INTRODUCTION

1.1 My name is Andrew Toop. I am the Manager of Commercial and Growth for Waikato Regional Airport Ltd (WRAL) I have held this position since June 2006. I have a Bachelor of Science and a Masters of Commerce (Hons) in Management Science.

1.2 In this evidence I outline:

- My role in the project and the role of the Airport Community Liaison Group;
- The project development and history;
- Why it is important for WRAL to extend the runway, new business opportunities, and the runway extension business case;
- The alternative to not extending the runway;
- The economic analysis for extending the runway;
- An update on the capital costs of extending the runway;
- Discussions to date with property owners at each end of the runway; and
- The importance of the GA business for WRAL.

2. RUNWAY EXTENSION PROJECT

2.1 I am responsible for managing Private Plan Change 69, Variation 12, Variation 22, and the notice of requirements in the Waikato and Waipa District Plans ('the WRAL applications'). The management role has also included discussions with local land owners, formation of the Airport Community Liaison Group, management of consultants and budget.

2.2 The Airport Community Liaison Group ('Liaison Group') was formed in December 2009 to manage and address WRAL's aircraft noise complaints. The need for this group became apparent once WRAL started public consultation on the runway extension.

2.3 The Liaison Group consists of an independent chairperson and representatives from the community, airport operators, Airways, WRAL and Waipa and Waikato Councils. The Liaison Group's inaugural meeting was on 21 January 2010 and has since met on a total of 6 occasions.

- 2.4 The Liaison Group has been proactive in seeking resolutions to aircraft noise issues, which have been documented in WRAL's Noise Management Plan (NMP) as operator guidelines. The Liaison Group also recommended that the NMP is given 'teeth' through incorporation into the New Zealand Aeronautical Information Publication (NZAIP). WRAL has acted on the recommendation with the guidelines now incorporated into the NZAIP.
- 2.5 The Liaison Group has not had any direct input into the WRAL applications.

3. PROJECT DEVELOPMENT

- 3.1 District Plan changes to enable an extension of WRAL's main runway have been considered for a long time. This is because WRAL is unique in New Zealand in having available land within a rural environment to extend the runway combined with a large population within driving distance of the airport. I am not aware of any other New Zealand commercial airports that have this mix of circumstances, with the likes of Wellington Airport being hemmed in by the sea, Dunedin Airport having a much smaller population base and Palmerston North Airport having a small population base and being very close to a large urban centre.
- 3.2 As part of the Waikato District Council District Plan review in 2004 WRAL sought and obtained noise boundary and OLS changes to protect for a 2,720m runway in the Waikato District Plan. However, the Waipa District Plan was not updated at the same time and so the Waipa District Plan shows runway land designations, noise boundaries and an OLS for the existing 2,195m runway. Similar older noise boundaries and OLS are shown in the Hamilton District Plan.
- 3.3 A review of aircraft performance on the potential 2,720m runway showed the critical importance of maximising the take-off distance available for long-haul flights to destinations such as Asia and the West Coast of the US. As a consequence, WRAL commissioned Astral Limited to review the 2004 runway design, with the aim of maximising the take-off distance. From this study it was determined that WRAL could lengthen the runway to 2,984m and the take-off distance to 2,796m. This extra distance was seen as critical for reducing weight restrictions on long-haul flights.
- 3.4 Aircraft performance analysis was also examined for a shorter 2,500m runway. However, at this distance it became apparent that while WRAL could land wide-

bodied jet aircraft the take-off distance would be insufficient for direct flights to Asia or the West Coast of the US. Furthermore, while in theory most wide-bodied aircraft can land on a 2,500m runway at this length many airlines would be uncomfortable about operating wide-bodied aircraft significantly close to their performance limits. As a consequence, WRAL realised the need to extend the runway to the maximum available between Airport Road and Raynes Road.

- 3.5 International airlines operating wide-bodied aircraft expect High Intensity Approach Lighting (HIAL) to be a component of the aeronautical infrastructure, when operating to an airport. Runway approach lighting provides night-time guidance to pilots landing at the airport who are unfamiliar with landing at Hamilton and enables landing in poor visibility conditions, which are not uncommon. As the aircraft can land from either end of the runway the ability to install HIAL is being preserved for both ends of the runway.
- 3.6 To accommodate wide-bodied aircraft WRAL will need to expand the current apron adjacent to the terminal. An area has been set-aside to accommodate up to three B747-400 aircraft through expanding the current apron to the north and increasing its width towards Airport Road. This apron expansion has meant the expanded apron is under the flight path of the aircraft using the cross runways. Therefore, to avoid small aircraft, which are often flown by trainee pilots, taking off and landing over large aircraft parked on the apron the cross runways need to be realigned so that the flight path is diverted to the north of the apron.
- 3.7 Alternatives to realignment of the cross runways were:
- Stopping aircraft using the cross runways while aircraft were parked on the apron. This option was seen as impractical as the aircraft could be parked on the apron for days particularly if they required repairs. Furthermore, the predominant wind direction is West to South West and at certain times of year strong winds in these directions means that the cross runway needs to be used frequently for trainee pilots.
 - Expanding the apron to the south and so avoiding aircraft using the cross runway. This option was unworkable as there is less land available to provide the depth of apron required to park a wide-bodied aircraft because of the influence of the adjacent gully and it is too far from the international end of the terminal for passengers to get to and from the aircraft.

- 3.8 As a standard component of a runway extension the proposed Obstacle Limitation Surface (OLS) is designed to meet the runway specifications. An OLS is required by CAA to ensure that airspace around the runway is kept clear of obstacles for aircraft landing or taking-off in an emergency. Day-to-day aircraft movements are normally well above the OLS.
- 3.9 The OLS proposed in the WRAL applications are standard for a code E runway and the cross runways with one exception. This exception is to operate a 'technical' OLS of 1:50 at the northern end of the runway while maintaining an OLS of 1:62.5 in the district plans. The OLS of 1:50 is to ensure that the technical OLS (the OLS required to be met by operators) is above the oak tree stand, which is a roost for native bats. CAA Advisory Circular 'Aerodrome Standards and Requirements' clause 4.2.12 states that "If no object reaches the 2 percent (1:50) take-off climb surface, new objects should be limited to preserve the existing obstacle free surface or a surface down to a slope of 1.6 percent (1:62.5)." In other words, CAA requirements allow the 1:50 OLS for operations but seek the airport to protect for the 1:62.5 OLS in the District Plans. The evidence of Mr Park provides further detail.

4. REQUIREMENT FOR THE RUNWAY EXTENSION DESIGNATION PROCESS

- 4.1 WRAL's objectives in seeking the designation for the runway extension are to:
- Be able to quickly expand the runway and other aeronautical infrastructure to meet the operational requirement of any airline(s) that seeks to operate wide-bodied aircraft into WRAL; and
 - Ensure that the airport's aeronautical operations are able to continue to grow for the foreseeable future.
- 4.2 WRAL has been proactively marketing WRAL to airlines, which are in an expansion mode and operate wide-bodied aircraft to Australia. These airlines are predominantly Asian and Middle-East owned and based airlines. Most of these airlines could use 5th Freedom Rights (bilateral rights agreed between governments allowing Trans-Tasman passengers to be carried) to operate between Australia and New Zealand on the Tasman market, as well as fly directly from Asia to New Zealand. The only other New Zealand airports that these airlines could operate into would be Auckland and Christchurch.

- 4.3 WRAL has had a positive response from the airlines that see WRAL as an alternative to Auckland and Christchurch. WRAL's advantages over Auckland are the lower level of international competition, lower aeronautical charges and management flexibility to work closely with the airline. WRAL's advantages over Christchurch are a population 2.5 times the size within 3 hours drive and an overseas visitor market nearly twice as large. In summary, WRAL has easy access to New Zealand's largest, fourth largest and fifth largest (Tauranga) cities , plus access to the premier tourism attractions in the Central North Island.
- 4.4 WRAL needs to be in a position to react quickly to extend the runway and make other airfield changes if a firm commitment is received from an airline. This is because while it takes years to attract a new international airline to an airport, and despite airlines having long-term expansion plans, they tend to give airports only relatively short-notice from three to six months. The short notice given by airlines is largely because of the need to avoid competitive airlines becoming aware of their plans, as often competitive airlines will seek to undermine a route typically through advertising discounted airfares.
- 4.5 WRAL is also seeking to attract cargo airlines with the runway extension; however, in New Zealand about 95% of international airfreight is transported by passenger aircraft rather than dedicated cargo aircraft. One airfreight niche market where WRAL has advantage is equine air transport. This is because horses are too large for passenger aircraft and because it is estimated that 50% of horses airfreighted out of New Zealand originate from the Waikato. An extended runway at WRAL is critical for cargo aircraft as they need to operate at maximum payload capacity in order to compete with marginally priced airfreight transported by passenger aircraft.
- 4.6 WRAL has developed a business case to test the financial viability of extending the runway. Of note from this business case is that:
- Any runway extension and aeronautical upgrade would be designed for the particular aircraft type and so the capital cost is expected to be less than the full runway extension build plan.
 - WRAL's cost base is relatively flat and so additional international flights have only a marginal increase in WRAL's operating costs.
 - Only a relative small number of weekly flights from a wide-bodied aircraft are required to ensure a Weight Average Cost of Capital return on the capital cost of

the build. This reflects the significant airport revenue earned from international passengers, which includes commission on duty free, carparking revenue, commission on terminal retail sales, landing charges, and the \$25 international departure levy.

5. THE ALTERNATIVE OF NO EXTENSION

5.1 WRAL's board considered the option of not extending the runway. This option was rejected as WRAL's current international airline market has been severely limited to two airline groups. This is because WRAL's current 2,195m runway is designed to only enable narrow bodied jet aircraft (Boeing 737 class of aircraft and the Airbus A320) to fly to the east coast of Australia and only two airline groups (the Jetstar/Qantas group and the Air New Zealand/Pacific Blue Alliance) fly scheduled Trans-Tasman services using narrow bodied jet aircraft. Both airline groups have concentrated their New Zealand Trans-Tasman operations at Christchurch, Auckland and Wellington airports. New airlines flying narrow-bodied jet aircraft across the Tasman have been prevented through:

5.1.1 Australian Government regulations preventing overseas owned airlines from commencing international flights from Australia. An example of this is Tiger Airways Australia, which is a non-Australian owned ultra low cost airline flying domestically in Australia, who have voiced interest in flying the Tasman but have been blocked from doing so by Australian government regulations.

5.1.2 The limited range of narrow bodied jet aircraft means that they are unable to reach the East Coast Australian cities from Asia and so are unable to use 5th Freedom Rights to fly passengers across the Tasman. This compares to Auckland Airport where a number of airlines (e.g. Emirates, China Airways and LAN Airlines) operate wide-bodied aircraft on the Tasman using 5th Freedom Rights.

5.1.3 Fierce competition from the incumbent airlines (Jetstar, Qantas, Pacific Blue and Air New Zealand) has created a barrier for new Australasian owned airlines entering the market. As a result, while a number of Australian owned airlines have looked at Trans-Tasman flights (recent examples being OzJet and Pacific Wings) no new Australasian owned airlines are likely to enter the Trans-Tasman marketing the near future.

5.2 As a consequence of the above limitations, If WRAL were not to extend the runway then international services will be restricted because of an effective duopoly from most of New Zealand's international airports. Only with a runway extension would WRAL be able to break out of this limited market and attract new international airlines, which could be from an increasing number of Asian and Middle Eastern Airlines already flying to Australia.

6. ECONOMIC ANALYSIS

6.1 The economic analysis from the Waikato University shows a \$50M net present value from extending the runway. I believe that it is premature to undertake further economic analysis to obtain a more detailed estimate at this stage because any investment in a runway extension would be subject to a guarantee from an airline that they would commit to flying to Hamilton. Until the designation is approved and a firm commitment is obtained it is difficult to determine the following key model inputs:

- The investment risk that WRAL will seek to reduce through obtaining a guarantee;
- The capital cost of the runway extension, as the runway will be designed to meet specific aircraft requirements including overlay strength, apron sizing and runway length.
- Passenger numbers will be dependent on the flight frequency committed by the airline. This in turn drives the revenue to the airport and economic benefit to the region.

7. CAPITAL COSTS

7.1 As mentioned above, the design of any runway extension and aeronautical infrastructure upgrades will be minimized through designing to meet a specific route and aircraft requirement. However, if WRAL were to build the full runway extension and upgrade other airside infrastructure for Code E aircraft, plus insulate existing homes in the SEL 95 noise boundary, then it is estimated that the total capital build cost would be between \$20M and \$25M. This build cost range is higher than originally proposed because of the requirement for household noise insulation in the SEL95 noise boundary which arose through our consultation process and detailed noise assessment, and the need to lift the runway to avoid impacting the bat roost at

the northern end of the runway. While this capital cost is significant it is low by international standards for a Code E runway, because the extension is over flat farm land owned by WRAL.

8. DISCUSSIONS WITH PROPERTY OWNERS

- 8.1 Discussions have been underway with property owners at the northern and southern ends of the runway. Progress has been made with the main southern landowner in gaining alignment on how WRAL could best obtain access to their land for the placement of the runway lights and DVOR; however, no agreement is in place yet.
- 8.2 Alignment with Meridian 37 was reached with Meridian 37's plan change 67 being designed to accommodate the placement of the runway approach lights and for the inclusion of a Runway Protection Area. WRAL has consulted with Meridian 37 and provided detailed information to them about the airport's requirements.

9. GENERAL AVIATION AT WRAL

- 9.1 General Aviation (GA), which are aircraft under 3 tonnes, has grown rapidly at WRAL making WRAL the third busiest airport in New Zealand (after Auckland and Ardmore) in terms of total aircraft movements. The growth in GA movements has principally been driven by CTC Aviation Training Ltd. To cater for the increased GA movements WRAL sealed a grass GA runway that runs parallel to the main runway in 2010.
- 9.2 GA is an important business for WRAL both in terms of revenue from landings and revenue from land leases. GA also supports a number of aircraft maintenance companies around the airport, which in turn provides lease revenue to the airport and employment. GA, and in particular pilot training, is also an important employer for the local community.

10. CONCLUSION

10.1 In conclusion:

- The WRAL applications to protect for a future runway extension are required for WRAL in order to be able to quickly react to an airline opportunity.
- The airport is well placed to have the passenger demand required to enable a financially feasible future expansion, with large populations and the Central North Island's premier tourism destinations in close driving distances.
- WRAL's current international airline market is restricted to two airline groups by Australian government regulations that prevent new overseas owned airlines flying the Tasman and aggressive competition preventing new locally owned airlines flying the Tasman.
- The capital costs for extending the runway are comparatively low, as the extension will be across flat farm land owned by WRAL;
- In regard to general aviation, this is an important business for the airport and the local community. When the airport became aware of the GA noise issues it implemented the Airport Community Liaison Group, which has been effective in developing operator guidelines to address aircraft noise complaints.

Andrew Toop

17/02/2011