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**(No Embargo)**

## **2007 IPENZ Pickering Public Lecture Auckland International Airport- the Engineering Story**

### **Background**

The Pickering Lecture Series is hosted annually by the Institution of Professional Engineers New Zealand (IPENZ).

Dr. William Pickering was one of New Zealand's most eminent engineers who died at the age of 93 in March 2004. He worked on the US Space Programme and appeared twice on the front page of Time Magazine. The Lecture Series is named in his honour and is designed to be topical and to stimulate interest in engineering matters in the community.

The Institution of Professional Engineers New Zealand (IPENZ) is the representative body for professional engineers from all disciplines. The organisation supports its 9000 Members through the delivery of services which include professional development, awards and scholarships, publications, and an events programme. IPENZ leads engineering practice by setting internationally bench-marked qualifying standards for degree qualifications in engineering and accredits professional engineers. It also seeks, on behalf of the engineering profession, to contribute technical knowledge and expertise on issues which affect the wider community. Working with industry and education groups, IPENZ promotes engineering, technology and science, and encourages young New Zealanders to consider careers in technology.

### **The Topic**

Auckland Airport is both part of the public face of New Zealand, and its most important gateway. As a nation we are dependent on its smooth and efficient operation, and at the heart of that operation is engineering. This lecture tells the engineering story, commencing from the opening in 1966 and leading through to today's sophisticated engineering-dependent operation, many times greater in magnitude.

The airport processes 12 million passengers and 225,000 tonnes of freight from 160,000 flights annually. At nearly 100 000m<sup>2</sup>, the size of 100 rugby fields, the international terminal is one of the largest public buildings in New Zealand. In the most recent construction activity involving terminals and runway rebuilds, up to 30 000 members of the public every day moved through the airport, rightly requiring uninterrupted continuity of the airport's operations and no safety compromises.

Today's aircraft are huge, wide- body, twin- aisle aircraft such as the Boeing 747-400 with a maximum takeoff weight of 395 tonnes. Next year the even bigger Airbus A380

will be on the runway with a takeoff weight of 550 tonnes. Over the years, runway improvements have been carried out in a number of stages to accommodate the increasingly large aircraft without disruptions to service. Throw in unpredictable weather, plus the desire to recover and re-use materials and the margin for error in the project timeline is very small.

Back in the terminals, improvements in layouts, security and baggage handling have made it possible for passengers to be quickly processed, despite ever increasing security standards. New navigation approach technology is also on the way to increase the ability to operate under very marginal weather conditions such as fog.

**The 2007 Pickering Lecture** will be delivered by General Manager Engineering, **Steve Reindler** who, along with 98 000 others, was at the opening air pageant back in 1966 and who, over the last 10 years, has overseen the new works. Hear how over 100 million dollars is currently expended annually on engineering works under his leadership. Steve will present powerful static images and video footage of the airport, some going back over 40 years. Ask the questions that have intrigued you on your passage through the airport. Don't miss out.

*For more information or if you would like to interview Steve Reindler, contact:*

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