

# Chapter 9.7

## Hawke's Bay Airport

### Locality

The Hawke's Bay Airport is built on land uplifted by the 1931 earthquake and is situated at Westshore in Napier, alongside State Highway 2 and the Napier-Gisborne rail-link. The land is low-lying with the sea water table at about 500 mm below ground level, depending on the tides. The site is continuously pumped to protect the facilities from tidal flow.



*Hawke's Bay Airport July 2001.  
(Photo courtesy of Hawke's Bay Regional Council)*

### Services

#### *Airside*

There are two main runways - '16/34', fully sealed 1310m x 45m and '07/25', sealed 600m x 30m and grass 619m X 60m. There is also a parallel grass strip, '16/34' 766m x 60m, for light aircraft. Grass '10/28' is closed. There are two sealed and a number of grass taxiways, and a sealed and concrete apron in front of the terminal.

The main runway has runway edge lighting, approach lighting and Precision Approach Path Indicator (PAPI) lights. Lighting towers next to the terminal light the apron. A VHF omnidirectional Radio Ray (VOR) station is situated 0.7 nautical miles north of the main taxiway on land owned by Landcorp.

The Airways Corporation provides air traffic control services with a new 20m tower about to be built. VHF radio is used to communicate with aircraft and ground vehicles.

Airport Rescue Fire staff are on duty whenever there are scheduled arrivals or departures of aircraft that seat 30 or more passengers.

There are a number of private hangars at the airport used for aircraft storage and as maintenance facilities.

Mobil, Shell and BP provide aircraft refuelling facilities

The airport has large open drains along the main runway and excess water is pumped into the estuary by four pumps. Normally one pump operates from 12 to 24 hours per day with the others coming in progressively as required.

#### *Landside*

Terminal and car parking facilities are provided for scheduled airline services.

BP has a Jet A1 fuel depot beside the main access road.

The Napier Aero Club has its clubhouse on airport land.

Rental car companies have vehicle cleaning and storage facilities.

Power, water and telephone services are provided to the terminal and a number of other facilities.

Sewerage is pumped to the Napier sewage system from two pumps, situated at the terminal and beside SH2.

Stormwater and ground water are pumped off site by 4 pumps. The water table is normally only 500 mm below the low-lying ground level. Because the gravel foundation materials are porous, the water table rises during high tides and in periods of sustained rainfall.

### Results of Risk Assessment

Risk assessment has identified a long power cut as posing the greatest risk to the continued operation of the airport, particularly if the runways are flooded.

Risk assessments for electricity power supply have been made by the Energy Task Group and are reported in Chapter 11. For the airport, there is a need to provide connections for mobile power generators.

## **Seismic Hazard**

### ***Ground Shaking***

The performance of the various buildings on site will depend on their age, construction and the date of their most recent structural upgrade.

A new control tower is presently under construction and will conform to current codes.

It is possible that ground shaking would result in uneven or cracked runways. However there is no practical way of preventing this.

After a report of any earthquake, it is normal practice to issue a notice to aircraft that landing lights are suspect until checked. A similar notice could be issued in regard to damage to the runway following an extreme earthquake.

### ***Liquefaction***

Although the area around the airport is designated as having very high susceptibility to liquefaction, the airport site itself is generally underlain by gravels from a very shallow depth.

As a result, liquefaction is not expected to be a problem, except at a few isolated locations where there are silt and sand deposits.

### ***Fault Displacement***

Fault displacement is not expected to occur.

### ***Ground Settlement***

A subduction thrust earthquake could result in general settlement accompanied by a greater influx of underground seawater. This would have seriously affect the operation of the airport.

There are no practical measures to mitigate against this risk.

### ***Flooding***

Extreme flooding could affect the operation of the airport.

Stormwater systems need to be maintained to ensure continual pumping is possible to minimise the extent of flooding.

### ***Tsunami***

Large tsunami would significantly affect the operation of the airport. There are no practical mitigation measures against this hazard.

### ***Landslip***

Landslip is unlikely to pose a threat to the airport.

### ***Wind***

Because the local meteorological station is located at the airport, all structures are designed and built to the relevant loading code.

### ***Volcanic Ash***

Volcanic ash has an immediate effect on aircraft movement. Any volcanic ash in the area is expected to affect aircraft flights and, as a result, the airport itself.

In the past flights have been diverted to avoid areas where it is suspected the air is laden with ash.

An ashfall on runways and taxiways would close the airport until the surfaces had been adequately cleaned.

### ***Wild Fire***

Wild fire is not expected to occur at or near the airport.