Preliminary Report
ZK-JPE Crashed into Sea, Orewa
20 March 2011

Abstract
At approximately 1415 hours New Zealand Standard Time on 20 March 2011, the pilot of ZK-JPE, a G Pereira GP-4 amateur built fixed wing aircraft, took off from North Shore Airfield, for a short test flight in the local area. The pilot was the only occupant. At 1454 hours, people in the vicinity of Orewa beach saw the aircraft in a spiral dive toward the sea. The aircraft struck the surface of the sea approximately 500 metres to the east of Orewa.

Factual Information
ZK-JPE was seen to take off normally using runway 03 at North Shore Airfield. The purpose of the flight appeared to be for the pilot to complete a propeller test. The pilot had performed maintenance on the engine cooling system earlier in the day.

A few minutes before the accident, a radio conversation occurred between the pilot of ZK-JPE and the pilot of another aircraft. Both pilots were known to each other. This conversation was to agree on altitudes for separation, whilst operating in the same piece of airspace to the East of Orewa. The pilot of ZK-JPE was to operate below 2500 ft and the other pilot above 3000 ft. No further transmissions were heard from ZK-JPE.

The aircraft was seen to be performing turns over the sea in the vicinity of Red Beach, Orewa Beach and Hatfields Beach. Shortly before the accident a witness observed the aircraft flying in a South Westerly direction toward Orewa. He noted that the engine RPM and the airspeed was reducing. Shortly afterward the attention of this witness, and numerous other people in the area, was drawn to the sight of the aircraft in a spiral dive toward the sea.

The aircraft was seen to strike the surface of the sea at high speed in a nose down attitude.

Despite the valiant attempts by people close to the scene to perform a rescue, the pilot had been killed by the impact.

The flight of ZK-JPE was later identified within Airways SSR radar data, recorded on the day of the accident, the details of which matched the witness sightings.

Injuries to persons
The pilot received fatal injuries.

Pilot information
The pilot commenced flight training in December 1984. The pilot held a Part 61 Private Pilot's Licence (Aeroplane) issued in September 1993. He had a total of approximately 200 hours flying experience as Pilot in Command at the time of the accident, of which approximately 25 hours was on type. The pilot had a current Class II Medical Certificate.

Weather conditions
Weather conditions were good on the day and did not contribute to the accident.

Wreckage and impact information
The aircraft disintegrated from the force of the impact with the sea. The majority of the wooden and fibreglass aircraft structure was collected from the shoreline. The engine, propeller and part of the centre fuselage structure remained on the seabed, at a depth of about 5 metres, until location and recovery by the NZ Navy was possible. Once recovered, the engine was stripped and inspected, revealing no obvious pre-accident mechanical failure;

Ongoing investigation activities
The investigation is continuing and will include:
• Further examination of the wreckage.
• Investigation of previous maintenance and technical matters.
• Post mortem report.
• Understanding of the flight characteristics of the aircraft.
• Consideration of the pilot's flying experience and training.
• Identification of possible human factors that might be relevant to the accident.

If any person has information which may assist with the investigation of this accident then they may contact the Civil Aviation Authority of New Zealand at isi@caa.govt.nz CAA accident investigations are conducted in accordance with ICAO guidelines. The sole objective of such investigations is the prevention of accidents by determining the contributing factors or causes and then implementing appropriate preventive measures - in other words restoring safety margins to provide an acceptable level of risk.
The focus of CAA safety investigations is to establish the causes of the accident on the balance of probability. Accident investigations do not always identify one dominant or 'proximate' cause. Often, an aviation accident is the last event in a chain of several events or factors, each of which may contribute to a greater or lesser degree, to the final outcome.
*The sole objective of the investigation of an accident or incident shall be the **prevention** of accidents and incidents. It is **not** the purpose of this activity to **apportion blame or liability**.*