

Fact Sheet

- The New Zealand Government, through the Civil Aviation Authority, is implementing a new global standard for aviation navigation systems across New Zealand airports. It's called New Southern Sky.
- A 12-month trial to bring a global aviation navigation upgrade to Christchurch has been announced by Airways New Zealand, the Board of Airline Representatives New Zealand (BARNZ), Christchurch International Airport and New Southern Sky. The trial will start on 9 November.
- The PBN trial will only apply to scheduled passenger aircraft arrivals. The flight paths will be trialled by a quarter of all jet arrivals into Christchurch. Airways' figures reveal the most aircraft using PBN approaches into Christchurch in one day is likely to be 28. All flights will operate within the existing approved noise contours for the Christchurch Airport.
- The arrivals-only trial flight paths into Christchurch Airport will operate under Performance Based Navigation (PBN), which uses satellite-based navigation. PBN delivers a number of benefits - safety through accuracy, efficiency through reduced flying distance and reduced engine thrust, and environmental benefits through reduced noise impacts and reduced carbon emissions.
- Performance Based Navigation (PBN) moves New Zealand away from the current ground-based navigation aids and procedures to a more accurate satellite-based system and the performance and capabilities of equipment on board the aircraft.
- An extensive noise data set, based on existing approaches, has already been gathered to compare with trial data. The trial will collect technical data including noise monitoring and community feedback and will determine the best balance of safety, airspace management and environmental benefits, such as fuel and carbon emission savings.
- The trial flight paths have been developed following research, noise monitoring and industry input and the trial partners will be working closely with local residents and businesses to gather feedback on the impacts. We have carefully considered the trial flight paths to avoid overflight of communities as much as possible, hoping the majority of communities will experience less overflight and noise.
- The new technology will allow for shorter, more direct flight paths, which lowers fuel burn and exhaust emissions. This will be beneficial to the air quality in areas local to the airport. There will also be a significant improvement in air traffic management meaning more efficient arrivals and departures to avoid 'stacking' aircrafts in a holding

pattern. More efficient take-off and landing will also reduce overall noise levels for the community.

- The current approach procedure for landing (called Vectored Step Down Approach) requires intermittent thrusts to keep the aircraft level in flight before the next step down. The same applies to departure procedures as well. This procedure typically uses more fuel and increases the overall flight time. The PBN based “continual descent procedure” allows the aircraft to fly higher for longer, descend at a constant rate while reducing engine noise through idle thrust descent power settings, use less fuel, reduce flight times and reduce the overall impact on the environment through lower fuel emissions.
- New Zealand’s programme is part of a worldwide drive by regulators and the aviation industry, under the International Civil Aviation Organisation’s Global Air Navigation Plan, to improve flights paths and support the management of growth in travel, trade and tourism.
- For more information visit www.christchurchflightpathstrial.co.nz

