

Monday 28 November 2011

11.00 a.m. - Room 531

## Dr Mark Bart

Senior Scientist, Aeroqual Ltd, Auckland

### *Atmospheric Chemistry and Physics in a Flying Laboratory*

The UK Large Atmospheric Research Aircraft is a converted BAe-146 'Whisper Jet' which contains a number of instruments for studying the atmosphere. The aircraft function and performance will be described in the context of three recent campaigns with three very different research objectives centred on Arica, London and Ouarzazate. The seminar will review the structure of the atmosphere, the advantages and disadvantages of an aircraft for probing the atmosphere, the challenges surrounding aerosol measurement at 100 ms<sup>-1</sup> and some scientific outcomes of recent campaigns. The discussion will conclude with some advice for applying for flying hours, particularly for graduate students.



*Aerosol probes above a layer of marine stratocumulus in the South Pacific.*

Mark Bart is a former member of the UC Chemistry Department. After graduating he spent 4 years at the Measurement Standards Laboratory of New Zealand and 4 years at the University of Leeds in the United Kingdom, where he specialised in atmospheric field measurement campaigns, including measurements for atmospheric chemistry, physics and meteorology. He spent a number of hours flying on the BAe-146 laboratory, making measurements of aerosol and chemical pollutants around the UK, South America and North Africa. Recently he moved to Auckland to work for Aeroqual, a medium sized company that specialises in instrumentation and project development for air quality networks.