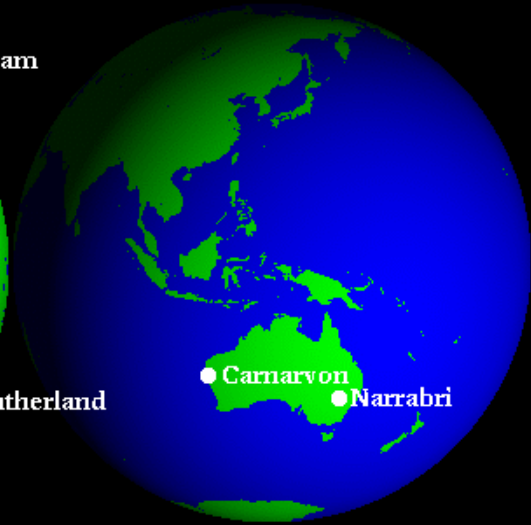


# BiSON

## Birmingham Solar-Oscillations Network



# Continued operations funded

- STFC support funded through March 2021
- Continuing programme of upgrades [using STFC Impact Accelerator funds]:
  - new spectrometer in Tenerife;
  - new light-feed system being installed at Mt Wilson and Carnarvon

# Range of science questions...

International/UK groups (and us) exploiting BiSON data for studies of...

... the solar cycle and dynamo theory, interior-atmosphere linkage... stellar evolution, angular momentum evolution, tests of standard solar model... solar abundance problem; WIMPs, dark matter... convection, physics of the photosphere... benchmarking stellar analyses, stellar noise and exoplanet detection... physics of moon Europa... atmospheric extinction and volcanic aerosols

# Range of science questions...

## Opportunities...

- First ever seismic studies of 22-year Hale cycle (upcoming cycle 25 will be our fourth 11-year cycle...)
- Long-term variability: seismic indicators of sub-surface structural change in cycle 23 have persisted through cycle 24; what is happening?
- Low-frequency modes for core structure/rotation and exotic physics; novel exploitation of spatial incoherence of granulation to beat down noise...