

Anglo-Australian Observatory

Annual Report of the Anglo-Australian Telescope Board

1 July 2001 to 30 June 2002



ANGLO-AUSTRALIAN OBSERVATORY

PO Box 296, Epping, NSW 1710, Australia
167 Vimiera Road, Eastwood, NSW 2122, Australia
PH (02) 9372 4800 (international) + 61 2 9372 4800
FAX (02) 9372 4880 (international) + 61 2 9372 4880
e-mail director@aaoepp.aao.gov.au

ANGLO-AUSTRALIAN TELESCOPE BOARD

PO Box 296, Epping, NSW 1710, Australia
167 Vimiera Road, Eastwood, NSW 2122, Australia
PH (02) 9372 4813 (international) + 61 2 9372 4813
FAX (02) 9372 4880 (international) + 61 2 9372 4880
e-mail ljw@aaoepp.aao.gov.au

ANGLO-AUSTRALIAN TELESCOPE/UK SCHMIDT TELESCOPE

Private Bag, Coonabarabran, NSW 2357, Australia
PH (02) 6842 6291 (international) + 61 2 6842 6291
AAT FAX (02) 6884 2298 (international) + 61 2 6884 2298
UKST FAX (02) 6842 2288 (international) + 61 2 6842 2288
WWW <http://www.aao.gov.au/>

© Anglo-Australian Telescope Board 2002
ISSN 1443-8550

COVER: The cover image shows a slice through the three-dimensional map of 221,000 galaxies obtained with the 2dF spectrograph on the AAT, colour-coded to show the density of the structures. By analysing these structures, an Anglo-Australian team of astronomers have determined several fundamental cosmological constants with unprecedented precision. (Credit: The 2dF Galaxy Redshift Survey team and Paul Bourke, Swinburne University)

COVER DESIGN: Ellipse Design

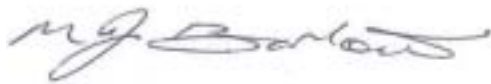
COMPUTER TYPESET AT THE: Anglo-Australian Observatory

PICTURE CREDITS: The editors would like to thank AAO staff Jonathan Pogson, David Malin and Lachlan Campbell from Mount Stromlo Observatory, for their photographs throughout Chapters 1-3.

The Right Honourable Patricia Hewitt, MP,
Secretary of State for Trade and Industry, Government of the United Kingdom
of Great Britain and Northern Ireland

The Honourable Dr Brendan Nelson, MP,
Minister for Education, Science and Training
Government of the Commonwealth of Australia

In accordance with Article 8 of the Agreement between the Australian Government and the Government of the United Kingdom to provide for the establishment and operation of an optical telescope at Siding Spring Mountain in the state of New South Wales, I present herewith a report by the Anglo-Australian Telescope Board for the year from 1 July 2001 to 30 June 2002. The report summarises the operations of the Board for the period under review and includes financial statements and statements of estimated expenditure in accordance with the provisions of the Agreement.



M J Barlow
Chair
Anglo-Australian Telescope Board
7 November 2002

Contents

Anglo-Australian Telescope Board

1. The Anglo-Australian Observatory

Statement of purpose	1
History and governing legislation	1
Ministers responsible	2
Designated agencies	2
Structure of the AAO	3
Board members	3
Advisory committees	3

2. Scientific Highlights

World's largest galaxy survey	6
Gamma-ray burst revealed as exploding star	10
New-found planetary system looks like home	12
Star seen to be "Doin' the twist"	14

3. The year in review

Operational environment	17
Strategic directions	19
Key result area: telescope operations	20
Key result area: research	27
Key result area: instrumentation	32
Key result area: resources	39
Key result area: external communications	42

Appendices

A. Financial statements	45
B. OH&S policy and Client Service Charter	71
C. AAT Board members and committees	75
Abbreviations for institutions	79
Glossary, abbreviations and acronyms	82

Anglo-Australian Telescope Board

30 June 2002

United Kingdom

Chair

Prof. M J Barlow
Professor of
Astrophysics,
University College
London



Australia

Deputy Chair

Prof. R D Ekers
Director, Australia
Telescope National
Facility



Prof. M Birkinshaw
William P Coldrick
Professor of
Cosmology &
Astrophysics,
University of Bristol



Prof. K C Freeman
Research School
of Astronomy and
Astrophysics,
Australian National
University

Mr G Brooks
Head of Astronomy
Division, Particle
Physics and
Astronomy
Research Council



Prof. L Cram
Australian
Research Council



Anglo-Australian Observatory



Prof. B J Boyle
Director, AAO