

**MINUTES OF THE ANNUAL VISITATION BY THE BOARD OF GOVERNORS HELD
IN THE OBSERVATORY LIBRARY AT 10.30 A.M. ON 20 MARCH 2009**

Present: Professor A. Hibbert, Dean P.W. Rooke, Canon W.M. Adair,
Canon J.N.T. Campbell, Canon R.J.N. Porteus, Councillor B.
Gardiner-Watson and Dr R. Oudmaijer

Apologies: His Grace, the Most Reverend A.E.T. Harper, Archdeacon R.G.
Hoey, Canon J.W. McKegney, Canon C.F. Moore, Canon W.J.A.
Dawson, Canon T. Scott and Lord Ballyedmond

In attendance: Dr T. Mason, Professor M. Bailey and Mr L. Young

Professor Hibbert chaired the meeting in the absence of the Chairman.

Members of the Board confirmed that there were no conflicts of interest arising from the matters to be discussed at the meeting.

**1. MINUTES OF THE ANNUAL VISITATION OF 14 MARCH 2008 AND THE JOINT
MEETING OF THE BOARD OF GOVERNORS AND THE MANAGEMENT
COMMITTEE OF 6 MAY 2008**

- 1.1. The minutes of the Annual Visitation of the Board of Governors of 14 March 2008 and the Joint Meeting of the Board of Governors and the Management Committee of 6 May 2008 were approved as a correct record of the meetings and signed by the Chairman.

2. MATTERS ARISING FROM THE MINUTES

- 2.1. The Chairman reported that the DCAL has appointed four new representatives on the Management Committee and two of the existing DCAL representatives have been re-appointed for a further term. In addition, a DCAL official now attends meetings of the Management Committee as an Observer, which provides a useful opportunity for interaction between the Department and the Committee. The structure of the Board of Governors remains unchanged and Councillor Gardiner-Watson continues as the DCAL representative on the Board.
- 2.2. Dean Rooke agreed to provide Professor Bailey with a current list of the membership of the Chapter of the Church of Ireland Cathedral of Armagh together with their e-mail and other contact details.

**3. MATTERS ARISING FROM THE MINUTES OF THE MANAGEMENT
COMMITTEE AND INTERNAL AUDIT COMMITTEE**

- 3.1. Included in the papers were the minutes of the Management Committee meetings of 19 June 2008, 20 November 2008 and 27 February 2009 and the minutes of the Internal Audit Committee of 13 June 2008 and 1 August 2008.
- 3.2. The Chairman referred to minute 3.5 of the Management Committee meeting of 27 February 2009. The DCAL requires all its representatives on boards of management to undergo corporate governance training and strongly recommends that other members of the Observatory and Planetarium Board of Governors and Management Committee should also undertake this training. Any member of the Board wishing to avail of this training should contact the administration staff.
- 3.3. The Chairman referred to the minutes of the Internal Audit Committee of 1 August 2008. The Internal Auditors have completed an interim report on the implementation of

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the 2007/2008 Internal Audit recommendations which will be considered by the Internal Audit Committee at its next meeting.

- 3.4. Professor Bailey referred to minute 4.9 of the Internal Audit Committee meeting of 1 August 2008 in which concern was expressed about the ever increasing requirements from the DCAL for documentation. The number of requests for action and information from the Department continues to grow and this is regrettably taking more of the Directors' time.

4. CHAIRMAN'S BUSINESS

Chairman's Business had been reported in the minutes circulated. There were no other matters for discussion.

5. DIRECTORS' REPORTS FOR 2008/2009 AND BUSINESS PLANS FOR 2009/2010

Dr Mason referred to the following matters:

- 5.1. The work and facilities of the Planetarium have been evaluated by the Education Training Inspectorate on behalf of the DCAL. The report will be circulated to the Board and Management Committee when published.
- 5.2. A measure of how the Planetarium has progressed since re-opening in 2006 is the increasing number of requests from other institutions to visit the Planetarium to learn from our experiences and the educational activities developed by Planetarium staff.
- 5.3. The number of visitors to the Planetarium is disappointingly low for 2008/2009. Visitor numbers are projected to be just under 33,000, which is 28.6% below the target of 50,000. Lower visitor numbers also result in lower income from admissions and shop sales. Outreach numbers, projected to be 13,500 for the year, are 35% above the target of 10,000.
- 5.4. Visitor satisfaction is 80% overall and many of the comments received are very favourable.
- 5.5. The key targets for 2009/2010 Business Plan which is in the papers for the meeting are: 42,000 visitor numbers; 10,000 outreach numbers; 75,000 visitors to the Virtual Planetarium website; and £150,000 from admissions income.
- 5.6. The Planetarium will continue with its New Targeting Social Needs programme which is aimed primarily at those with a disability and small community groups.
- 5.7. Outreach charges will be reviewed and brought into line with charges in the Republic of Ireland.
- 5.8. As part of its advertising plans for the year ahead the Planetarium will work closely with the Armagh City and District Council to promote visitors to all the attractions in Armagh. The Planetarium will also appear in Northern Ireland Tourist Board advertisements.
- 5.9. Funding provided to schools under the Science, Technology, Engineering and Mathematics programme to promote science education, the development by Planetarium staff of a number of new interactive shows linked to the schools curriculum, the growing international profile of the Planetarium and the Planetarium's New Targeting Social Needs programme represent positive factors and opportunities for the Planetarium. However, pressure on school budgets, the need to renew the Planetarium exhibit area and the ageing theatre projection equipment represent risks that need to be addressed.
- 5.10. As part of the forward planning for the next five years the Planetarium will seek to develop the Planetarium bungalow into a telescope viewing facility, seek funds for the replacement of the theatre projection equipment, develop computer equipment functionality, develop current and new collaborative links, increase the teacher training programme, renew the exhibition area and review staffing structures. Of these tasks the most pressing is the replacement of the projection equipment.

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- 5.11. External funding has been obtained to purchase the biggest nickel iron meteorite in Ireland and to create a sculpture to celebrate the achievements of Professor Jocelyn Bell Burnell.
- 5.12. Work is continuing in conjunction with the BBC on the translation of the Planetarium's educational material and plans for next year's Chinese New Year event.
- 5.13. During discussion of Dr Mason's report the Chairman congratulated Dr Mason on his appointment as President of the International Planetarium Society. This is a significant step in increasing the Planetarium's international profile and is also a recognition of Dr Mason's personal qualities. In response to a question from Dr Oudmaijer Dr Mason said that no funds were available for a formal review of the Planetarium's advertising activities. Dr Mason agreed to discuss with the Armagh City and District Council the production of a promotion leaflet for the local area which could be distributed through the parishes.

Professor Bailey referred to the following matters:

- 5.14. Professor Tom Ray replaced Professor Meurs as the Dublin Institute for Advanced Studies representative on the Management Committee.
- 5.15. The Observatory is primarily an astronomical research institute but its function also has many other facets. For example, it has a wealth of historical pieces, books and archives of a very broad interest, and one of the main reasons for the proposal to construct a new Library, Archives and Historic Instruments building is to properly archive and display these items. Another important facet of the Observatory's activities is its programme of Science in Community. The Observatory performs outreach and training, mostly to secondary schoolchildren and undergraduates through its programmes of school work experience and summer research projects, and to postgraduate PhD students, in a similar manner to a university department. This work in public understanding of science also helps to align the Observatory with DCAL priorities.
- 5.16. The Observatory was successful in obtaining additional in-year recurrent funding in 2008/2009 from the DCAL which eased the financial pressures in that year. Professor Bailey thanked Councillor Gardiner-Watson and the other members of the Board for their efforts and support in this matter. However, in order to operate effectively in the longer term the Observatory must obtain an uplift in recurrent funding from DCAL which is inflation proofed to some extent.
- 5.17. The Observatory's 2008 Research Assessment Exercise (RAE) grade profile is a very significant improvement on the corresponding results in the last RAE in 2001. Now, in 2008, 85% of the Observatory's research has been assessed as of international quality compared with 10% in 2001. None of the research work is lower than the UK national standard. In addition, in remarks made by the RAE Assessment Panel, the Observatory's outreach activity was considered to be world-leading. The Chairman commented that this was a very creditable outcome particularly as the work of all Observatory research staff was submitted.
- 5.18. In the DCAL's grant announcement letter dated 12 January 2009 there is no immediate uplift in recurrent funding for the Observatory, but it is important to note that the Department has potentially identified £105k towards the resource shortfall, subject to DFP approval, in 2009/2010. The Observatory must continue to seek additional recurrent funding to operate in the longer term and to develop long-term projects.
- 5.19. Professor Bailey referred to the following in the Research section of his Report:
 - (i) Gerry Doyle and Jorick Vink have been successful in a very difficult 2008 STFC grant round, the former obtaining two STFC-funded PDRA positions (£415.9k over three years) and the latter obtaining one STFC-funded PDRA position (£251.9k over three years). Gerry Doyle has also recently been successful in obtaining funding from the Leverhulme Trust for a Research Fellow and a PhD student (£170.4k over three years);

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- (ii) Apostolos Christou has obtained external project funding of €60k from his involvement in the European Planetology Network Research Infrastructure project. This will fund a Research Technician for up to a year during a four-year period;
 - (iii) Stefano Bagnulo has been successful in obtaining funding of £13.4k from the Leverhulme Trust to bring Professor John Landstreet of the University of Western Ontario, Canada, to the Observatory for a period of eight months;
 - (iv) Stefano Bagnulo organized a workshop on spectroscopy and spectropolarimetry of A and B-type Stars in February 2009;
 - (v) Stefano Bagnulo, Jorick Vink and Colin Folsom are co-Investigators of a large programme at the Canada-France-Hawaii Telescope in Hawaii, which was granted 650 hours for spectropolarimetry of massive stars to study magnetic fields;
 - (vi) Gerry Doyle and members of his group reported the discovery of a completely new category of radio emitting objects which has immense implications for our understanding of stellar magnetic activity;
 - (vii) Gavin Ramsay's Rapid Temporal Survey project has continued to get significant allocations of telescope time;
 - (viii) David Asher and colleagues have discovered a new member of the rare class of comets known as temporary satellite captures;
 - (ix) Stefano Bagnulo and colleagues have used the VLT telescope in Chile to determine the linear polarimetric phase function for the short-period comet 2P/Encke;
 - (x) David Asher and a former senior research fellow at the Observatory, Bill Napier completed a major invited review article on the Tunguska impact event;
 - (xi) Stefano Bagnulo with colleagues have performed the first-ever polarimetric survey of trans-Neptunian objects;
 - (xii) Jorick Vink and colleagues have reviewed various aspects of mass loss from Hot Massive Stars. Their extensive review will be published in the Astronomy and Astrophysics Review series;
 - (xiii) Mark Bailey reports that his investigation into the date of birth of Archbishop Richard Robinson shows that he was born in 1708 and not 1709 as previously thought. John McFarland also discovered that Archbishop Robinson met Sir William Herschel. These discoveries illustrate the wealth of local material waiting to be discovered.
- 5.20. Apostolos Christou has been instrumental in re-introducing observational astronomy to the Observatory using Observatory telescopes. Plans to expand robotic observations at Armagh with the erection of an autonomous Variable Star Telescope in the grounds of the Observatory are being progressed by Simon Jeffery with the help of capital funding from DCAL. It is hoped to complete this project in 2009/2010.
- 5.21. Meteorological readings have continued to be taken at Armagh. The data are much in demand and represent a resource of important strategic interest for Northern Ireland as we enter an era of rapid climate change. Dr Luc Rock, Queen's University Belfast, collected the first samples of rainwater from the Observatory on 27 January 2009 for the project to measure the isotopic composition of rainwater at the Observatory.
- 5.22. Martin Murphy and Geoff Coxhead report that: the high-performance computer cluster installed in 2004 has completed more than 42 processor-years of CPU activity; the new VOIP telephone system installed in 2008 has proved to be extremely reliable giving rise to annual savings in telephone costs; the new video-conferencing facility is now in regular use; and the Northern Ireland Regional Area Network, which provides the Observatory with a dedicated connection to the Internet, has continued to provide an extremely reliable service.
- 5.23. There were a number of academic and other visitors to the Observatory during 2008 which are detailed in the Report. The new DCAL Minister, Mr Gregory Campbell MP MLA made an informal visit to the Observatory on 25 September 2008.

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- 5.24. The second Lindsay Scholarship, a joint PhD studentship funded by DIAS and the Observatory in memory of Dr Eric Mervyn Lindsay, the seventh director of the Observatory and a man who had close connections both with DIAS and Queen's University Belfast, will go ahead in 2009.
- 5.25. The Observatory continues to develop the Astropark which receives some 40,000 visitors each year.
- 5.26. Miruna Popescu, who is an artist as well as an astronomer, arranged a photographic exhibition, "Armagh in my Heart", in St. Partick's Trian, Armagh. This event attracted press coverage and other interest.
- 5.27. The Observatory is assisting the King's School, Peterborough with its planned construction of a clone of the Armagh Observatory Human Orrery, in the grounds of the school. The Human Orrery, which is a model of the Solar System with time built into it, is a valuable educational tool.
- 5.28. Mark Bailey and Miruna Popescu together with Robert Hill (Northern Ireland Space Office) have been successful in obtaining significant external funding (largely from the Republic of Ireland's Discover Science and Engineering programme) to support a variety of IYA 2009 activities during 2009 and beyond. This is a significant cross-border activity.
- 5.29. The Armagh Visitor Education Committee together with the Blackwater Regional Partnership celebrated the launch of the book "Border Heritage" on 9 June 2008 in St. Patrick's Trian, Armagh.
- 5.30. The 2008 Robinson Lecture "God and the Universe" by Professor Peter Brand (University of Edinburgh), held in the Armagh City Hotel on 20 November 2008, attracted a record audience in excess of 200 people. Dean Rooke commented that this was an excellent event which was a good promotional exercise for the work of the Observatory and Professor Bailey should be congratulated on its success.
- 5.31. Observatory staff and students have hosted a large number of tours of the Observatory, Astropark and Human Orrery, involving both formal and informal groups and covering people of all ages and backgrounds.
- 5.32. Observatory staff supervised a number of school work-experience students and an adult with special needs.
- 5.33. Of the 33 media releases during 2008, 32 were published and a record 413 media citations were noted during the year, well above the target of 250.
- 5.34. The Observatory House is undergoing a much needed refurbishment.
- 5.35. Owing to lack of funding during 2008, it has not yet been possible to progress the detailed planning and design work necessary to advance the new Library, Archives and Historic Instruments building project. It is hoped that this work will begin in 2009.
- 5.36. The Observatory has entered into an agreement with the Armagh Public Library to allow the Observatory to make temporary use of the Library's archivist expertise. This arrangement will allow the Observatory to prepare its Library and Archives for eventual transfer to a new building and facilitates other possibilities, for example the preparation of joint grant applications to support further collaborative activities. After discussion the Board endorsed this arrangement.

Dean Rooke, Canon Adair and Canon Campbell left the meeting at 12.30 pm.

- 5.37. There have been a number of donations to the Observatory's Archives, notably a very important addition to the Hardcastle Archive from Mrs D. Perceval, the grand-daughter of Joseph Alfred Hardcastle, fifth Director of the Observatory. Hardcastle, in turn, was the great grandson of Sir William Herschel.
- 5.38. A set of 16 papers from the Birr archive comprising correspondence of the third director of the Observatory, Dr Thomas Romney Robinson and Lord Rosse have been conserved.

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- 5.39. The Internal Audit Meeting scheduled for 24 March 2009 had to be postponed because the Internal Audit Committee Chairman was required by DCAL to attend a training course on that day for chairs of audit committees.
- 5.40. A new and completely revised version of the organization's book of Policies and Procedures was completed on 8 October 2008 and issued to management and staff. This continues to be a live document.
- 5.41. From 1 January 2009 new Freedom of Information regulations will come into force requiring the Observatory to adopt a Government-approved publication scheme, provide guidance on access to information and provide more information at a lower level on the seven classes of information specified.
- 5.42. Following advice from the DCAL fraud insurance has been taken out at an additional cost of approximately £1k per year.
- 5.43. The Observatory has replied to the recommendations of a DCAL review of banking arrangements, and is awaiting a formal response. There appears to be no advantage to the organization in making any change its present banking arrangements.
- 5.44. The Observatory Business Plan for 2009/2010 has been included in the papers for the Board's consideration. It should be noted that the Observatory will be able to balance the budget for the year provided DCAL provide additional in-year recurrent funding of £105k. During discussion of the plan the Chairman noted that the commitment of Observatory staff is clearly underlined by the low sickness absence record. Dr Oudmaijer commented that the RAE results of UK physics departments were in a very narrow range indicating that UK physics is world beating and the Observatory is up there with the best performing departments. In addition, the Observatory's success in obtaining significant amounts of telescope time in a very difficult and competitive environment is noteworthy.
- 5.45. On the proposal of Canon Porteus, seconded by Dr Oudmaijer, the respective draft Armagh Observatory and Armagh Planetarium Business Plans for 2009/2010 were endorsed.

6. ANY OTHER BUSINESS

- 6.1. There was no other business.

7. DATE OF THE NEXT MEETING

- 7.1. The Secretary will arrange the next meeting and notify Board members.

The meeting ended at 12.50 pm

Signed as a true record of the Meeting

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His Grace, The Most Reverend A E T Harper OBE BA
Chairman of the Board of Governors

Date 19 March 2010