

MINUTES OF THE ANNUAL VISITATION BY THE BOARD OF GOVERNORS HELD IN THE OBSERVATORY BOARDROOM AT 10.30 A.M. ON 18 MARCH 2011

Present: His Grace, the Most Reverend A.E.T. Harper (Chairman), Dean P.W. Rooke, Canon C.F. Moore, Canon R.J.N. Porteus, Canon W.M. Adair, Archdeacon R.G. Hoey, Professor R. Oudmaijer, and Mr Greg Berry

Apologies: Canon J.W. McKegey, Canon J.N.T. Campbell, Canon T Scott, and Canon W.J.A Dawson

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

The Chairman welcomed Mr Berry, the newly appointed DCAL nominee on the Board.

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 19 MARCH 2010

- 1.1. The minutes of the Annual Visitation of the Board of Governors of 19 March 2010 were approved as a correct record of the meeting and signed by the Chairman.

2. MATTERS ARISING FROM THE MINUTES

- 2.1. There were no matters arising.

3. CHAIRMAN'S BUSINESS

- 3.1. Dr Mason drew the Board's attention to a personnel matter, which was noted by the Board.

4. DIRECTORS' REPORTS 2010/2011

Dr Mason referred to the following matters:

- 4.1. During the past year the Planetarium has sponsored as many events as possible to counter the fall in visitor numbers. The aim is to sponsor one event per month.
- 4.2. The Planetarium's adult education courses in astronomy at Queen's University Belfast, which have been running successfully for five years, will continue.
- 4.3. A student from the Stranmillis University College, Belfast, has successfully completed his work placement at the Planetarium. The outcome has been very pleasing and the Planetarium intends to offer this facility to St. Mary's University College, Belfast.
- 4.4. A new workshop "Seeing the Invisible" has been created for Key Stage 3 pupils to teach them about the electromagnetic spectrum. An iPad app. is being developed for this workshop.
- 4.5. The greatest risk facing the Planetarium is the reducing number of visitor numbers. Visitor numbers for the year to date are 33,601 against a year's target of 40,000. However outreach numbers to date of just over 22,000 are significantly above target. Outreach is an equally important educational service offered by the Planetarium.
- 4.6. The high cost of transport is restricting school visits to the Planetarium. In Scotland school transport costs are heavily subsidised by government. In response to a request from the Chairman Dr Mason agreed to raise this matter with the Permanent Secretary at the Department of Education.
- 4.7. The primary role of the Planetarium is to broaden the curriculum work at schools, particularly in the areas of literacy, numeracy and IT. The Education and Training

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- Inspectorate have evaluated the Planetarium's educational work and have concluded that this work is of the highest quality.
- 4.8. The DCAL regard the Audit and Risk Management Committee as key to ensuring the maintenance of good corporate governance and would like to see this committee having a greater oversight role. The DCAL intend to reduce the scrutiny imposed on the organization after certain additional measures are implemented. For example, Accountability meetings have been reduced from four to three. The Chairman welcomed this development.
 - 4.9. Staff numbers at the Planetarium are at the lowest possible level compatible with maintaining an operation for six days per week and seven during the summer. Given its importance outreach will be maintained.
 - 4.10. A new Administrator, Mr Joe Copeland, has been appointed to replace Mr Young who is retiring later this year.
 - 4.11. The Chairman and members of the Board thanked Mr Young for his very valuable contribution to the organization's work.
 - 4.12. Under Health and Safety matters Dr Mason reported that there is one unresolved issue in respect of a visitor who is claiming damages for the replacement of spectacles resulting from a fall at the entrance to the Theatre. This matter is being dealt with by the insurers.
 - 4.13. The DCAL has provided funding of £235k for the upgrade of the Digistar projection equipment and installation and commissioning of the equipment will take place in March 2011. The equipment which has been replaced will be used to render new shows. In response to a question from the Chairman Dr Mason said that the new projectors will use more power but this can be offset by running at lower intensity at a 1 KW capacity rather than the maximum capacity of 4 KW.
 - 4.14. When the new Digistar equipment is installed new shows will be created to replace the existing shows for Key Stage 3 and 4 pupils and for the general public.
 - 4.15. The Planetarium in conjunction with the Marble Arch Geopark, Enniskillen, and with the assistance of £9k funding from the DCAL, ran a very successful and well attended event "Cosmic Cuilcagh" for schools at the Geopark on 12 and 13 March 2011. Approximately 1,000 schoolchildren and adults attended the event over the two days. The Planetarium staff stayed in Enniskillen for a further three days to deliver additional educational activities for schools.
 - 4.16. It is likely that it will be more difficult in the future to fund advertising due to cuts in the DCAL's budget for the Planetarium. Alternative less costly promotional activities will be pursued.
 - 4.17. The Planetarium's 2011/2012 Business Plan will be ready for submission to the Board shortly. This will form part of the first year of the Planetarium's new Strategic Plan.
 - 4.18. The Planetarium's website has been redesigned and restructured and has been well received with the number of hits increasing as shown in the Google website statistics.
 - 4.19. A Planetarium social networking blog has been developed with a lively programme of topics, which leads to more exposure for the website.
 - 4.20. Astronotes are now distributed electronically, which will reduce the printing costs.
 - 4.21. The new video conferencing equipment is now in full operation allowing staff to communicate remotely with up to four schools at a time as part of the outreach programme. In response to a question from the Chairman on the utilisation of the facility Dr Mason confirmed that there will be opportunities to allow others to use the equipment to ensure maximum usage. This may well generate a new income stream.
 - 4.22. The iPhone and iPad apps, which are of considerable interest to young people, are an increasing important area for the development of outreach activities and the Planetarium has a number of projects in hands to use these media.
 - 4.23. The Planetarium participated in the BBC2 programme on astronomy "Stargazing Live," which was broadcast in January 2011. This was very successful and the February 2011 visitor numbers to the Planetarium were higher than normal, possibly due to the publicity from this show.

- 4.24. The Planetarium in conjunction with the Observatory and the Armagh Rhymers delivered a schools cross-border event in 2010.
- 4.25. The Planetarium's Business and Strategic Plans will be closely aligned to the new programme for Government and Public Service Agreements for the next planning period. The Planetarium will also take note of the targets contained in the new DCAL Museums policy.
- 4.26. The December 2010 adverse weather was a contributing factor to lower visitor numbers. Full details of the Key Performance Indicators are appended to the Report.

During discussion of the Planetarium Report Dr Mason said that he would consider having the weekly closure day on a Monday rather than a Sunday as visitor numbers were generally lower on Mondays. In response to a question from Mr Berry, Dr Mason acknowledged that the visitor survey numbers represented a small sample and said that renewed efforts would be made to increase the sample surveyed to ensure that the statistics were more meaningful. In response to a further question from Mr Berry, Dr Mason said the shop/mail order income was unsatisfactorily low and it is anticipated that this will be improved in the year ahead. In response to a question from Archdeacon Hoey on the survey of how people have heard about the Planetarium, Dr Mason said that although some people surveyed refer to press publicity the bulk of the visitors have heard about the Planetarium through word of mouth.

Dr Mason left the meeting at 11.30 am to attend urgent training on the new Digistar projection equipment.

Professor Bailey referred to the following matters in the presentation of his Report:

- 4.27. Staff have maintained a high level of research activity during the year with 45 publications in refereed publications in 2010 as well as a record of more than 500 identified mass-media citations to the Armagh Observatory, its staff and their work. Electronic access to the Observatory has also remained at a very high level, with 17.1 million "hits" and a record 9.5 TB of data exported from the Observatory to users of astronomical information elsewhere.
- 4.28. Details of the Observatory's very active outreach programme including the scientific papers delivered and general public talks are contained in the Report. There is also an active programme of in-house training including 28 internal seminars and colloquia delivered mainly by external visiting speakers.
- 4.29. Total external grant income and other income during the financial year 2010/2011 amounted to a record £383.2k (projected) of which £370k (projected) related to external grant income. The research staff have been very successful at obtaining external grants in a difficult climate. The reality is, however, that it will be difficult to match this level of income in future years because of cuts imposed on grant funding bodies.
- 4.30. Staff play a full role in the international astronomical community by, for example, reviewing scientific papers and serving on academic committees, all of which contribute to the Observatory's international profile and standing.
- 4.31. The Observatory's programme of Science in the Community is multi-faceted and includes training for work experience schoolchildren, undergraduates, public lectures and events such as the Observatory's participation in Armagh's St Patrick's Day celebrations and the provision of public tours of the buildings and grounds on the day. These are very worthwhile activities and serve to increase the Observatory's local profile.
- 4.32. Visitors to the Observatory's grounds and Astropark continue to increase with a total of 75,000 visitors in 2010, a significant increase over the figure for the previous year. In addition, approximately 500 to 1,000 people have been taken on guided tours of the buildings and grounds.
- 4.33. Trends in performance indicators over the past ten years are generally positive. In 2010/2011 there was an uplift in funding from the DCAL of £207.4k, which was very significant and the DCAL should be applauded for their continued support of the

- Observatory. The Chairman said that there had been an extraordinary turnaround in the funding over recent years, which is most welcome.
- 4.34. The Observatory will participate in the Research Excellence Framework 2014, formerly the Research Assessment Exercise. This provides the Observatory with a research “gold standard” to aim at, and a good performance in this research assessment will help to underpin the DCAL’s arguments for continued funding for the Observatory.
 - 4.35. Staff absence continues to be very low and much better than the general public sector. This demonstrates the staff’s commitment to the Observatory.
 - 4.36. The objectives for 2011/2012 are clear, namely to: (i) obtain external research grants and funding; (ii) strengthen the Observatory’s research capacity and capability; (iii) build on the Observatory’s involvement in the DCAL Learning Strategy; and (iv) progress plans for the design of a new Library, Archives and Historic Scientific Instruments building.
 - 4.37. The Observatory is more than a pure research institution and has responsibilities to look after its historic archives and to continue with its programme of Science in the Community. It is important continually to look at the medium to long terms and to ensure that decisions made now do not irrevocably constrain future developments.
 - 4.38. During 2011/2012 it is intended to continue, as resources allow, the current programme in collaboration with the Armagh Public Library to improve the documentation and storage conditions of the Observatory’s historic archives and museum collection. The Chairman said that ensuring the collection is maintained to museums standards is an argument in favour of the new building.
 - 4.39. Details of the Armagh Observatory and Planetarium structure along with the Observatory’s research environment are in the Report for information.
 - 4.40. The additional funding provided by the DCAL in 2010/2011 allowed the Observatory to obtain 80 TB of on-line storage capacity, which is very valuable for the research. Through the Dublin Institute for Advanced Studies the Observatory has obtained access to the Stokes Supercomputer at the Irish Centre for High-End Computing.
 - 4.41. Details of current staffing and changes in the membership of the Management Committee and the Board are in the Report. The current complement of six senior research staff provides the critical mass to sustain the full extent of research at the Observatory.
 - 4.42. Details of staff movements and achievements are in the Report. During 2010 Simon Jeffery was granted the title of Adjunct Professor at Trinity College Dublin and Mark Bailey was elected a Member of the Royal Irish Academy. The Chairman congratulated Professor Bailey on his election to the Royal Irish Academy, which is a very prestigious organization and his election recognizes Professor Bailey’s work over many years. The Chairman also asked Professor Bailey to pass on the Board’s congratulations to Professor Jeffery.
 - 4.43. Professor Bailey referred to the key performance indicators for 2010/2011. The rate of return of 20.1% for the year is slightly down on the target of 21.5%. This is due to a change in the mix of DCAL income, which increased significantly during the year, to external grant income, both evaluated using resource accounting rules. The ratio of administrative costs to total costs remains at a very good low level.
 - 4.44. Details of the programme of Science in the Community during the period are in the report. A highlight of the Observatory’s outreach activities has been the work of the Outreach PDRA, Miruna Popescu, who worked with the Armagh Rhymers to initiate a new outreach activity aimed at young children (and therefore keying into the international European Universe Awareness [UNAWA] programme) called “Over us All is the SElfsame Sky.” The Observatory will also receive approximately €200k to progress the EUNAWA project over the next three years.
 - 4.45. A further cross-border Schools Science Conference will be held in May 2011.
 - 4.46. The principal objectives in the Business Plan 2010/2011 have been achieved apart from progressing plans for the new Library, Archives and Historic Instruments building. However, as noted earlier, a lot of work has been done to preserve the historic

collection which will mean that the collection will not be at risk if the new building project is delayed.

- 4.47. The first images of deep-space objects were obtained on 1 February 2011 using the new Armagh Robotic Telescope. The telescope was officially opened on 4 March 2011 by Mr Alastair Hughes, Head of Museums and Libraries Branch, DCAL, who officiated in place of the DCAL Minister, Mr Nelson McCausland.
- 4.48. The additional capital funds provided by the DCAL in 2010/2011 enabled the Observatory to obtain a professional astronomical data storage and back-up capacity, replace the ageing grounds equipment, and purchase further equipment relating to the computer and telescope systems and the climate station.
- 4.49. Details of anticipated income for the next four years, Board membership, staff information, presentations by staff and seminars held, and the Observatory's TSN action plan are shown in the Report.

During discussion of the Director's Report the Chairman said that he found the presentation by one of the senior Research astronomers, Dr Vink, at the last Management Committee meeting very valuable. Professor Bailey said that he would arrange a similar presentation for the next Board meeting. It is very valuable for members of the Board and Management Committee to hear first hand from the research staff, to see their enthusiasm for their areas of research and to understand the big questions they are trying to answer.

Professor Oudmaijer said that Observatory staff had been very successful in obtaining telescope time, which is provided free, but would equate to approximately £20k for one night at a world-class telescope facility. This benefit in kind is not reflected in the rate of return statistics.

In response to a question from Professor Oudmaijer on the meteorological data, Professor Bailey said that he was conscious of the sensitive issues surrounding global warning and he ensured that all press releases issued by the Observatory were approved by him before distribution.

The Chairman said that all the Observatory's KPIs had largely been achieved and were on track.

In response to a question from the Chairman Professor Bailey provided the Board with the background to the arrangements with the DIAS for access to Stokes. A replacement of the Observatory's in-house cluster "Beehive" would have cost up to approximately £50k. As an alternative the Observatory received an invitation to purchase a half share in Ireland's High-Performance Computing Centre (ICHEC) main computer system Stokes at a cost of €25k. In a further development the DIAS offered the Observatory access to Stokes under the DIAS umbrella, obtaining the equivalent of a quarter share in Stokes. In exchange the Observatory would fund the full cost (rather than as now half the cost) of the Lindsay Scholar, the equivalent of approximately an additional cost of £8k per year. The DIAS proposal, as well as being cost effective, provides Observatory staff with access to a high-performance computing facility, maintains the Observatory's active involvement with ICHEC, strengthens cross-border research collaboration and provides flexibility going forward. Some elements of the Beehive will be retained as a back-up to the Stokes system.

In response to a question from the Chairman on the South African Large Telescope project Professor Bailey said that the technical problems with the telescope were being addressed.

Archdeacon Hoey conveyed his congratulations to Professor Oudmaijer on obtaining a full professorship at Leeds University.

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5. ANY OTHER BUSINESS

5.1. There was no other business.

6. DATE OF THE NEXT MEETING

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

The meeting ended at 1.00 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
23 March 2012