

**MINUTES OF THE EIGHTY-FIFTH MEETING OF THE MANAGEMENT COMMITTEE OF
ARMAGH OBSERVATORY AND PLANETARIUM HELD ON 9 FEBRUARY 2012 AT 10.30 A.M.
IN THE BOARDROOM, ARMAGH OBSERVATORY**

Present: Professor A. Hibbert (Acting Chairman), Dr F. Byrne, Mr E. Donnelly, Mr B. Hannam, Archdeacon R. Hoey, Dr M. McKay, Professor M. Merrifield, Professor R. Oudmajer, Professor T. Ray and Mrs P. Wilson

Apologies: His Grace, The Most Reverend A.E.T. Harper, Mr A. Peoples, Mr S. Shields and Mr M. Cory (DCAL)

In attendance: Professor M. Bailey, Dr T. Mason and Mr J. Copeland

1. CONFLICTS OF INTEREST

No conflicts of interest were declared by members.

2. MINUTES OF THE MANAGEMENT COMMITTEE MEETING HELD ON 17 NOVEMBER 2011

2.1. The minutes of the meeting of 17 November 2011, previously circulated to members, were approved by members and signed by the Chairman as a correct record of the meeting.

3. MATTERS ARISING FROM THE MINUTES

The Acting Chairman referred to the following matters:

- 3.1. Minute 3.1 and 6.4 – the personnel matter is dealt with in the report of the Audit and Risk Management Committee and in Dr Mason’s interim report.
- 3.2. Minute 3.2 and 5.9.3 – the issue of the Sharp Clock remains under investigation and was dealt with in the Observatory Director’s interim report.
- 3.3. Minute 3.3, 5.8 and 6.2 – the issue of whether the equal pay compensatory sum applied to Observatory and Planetarium staff remains unresolved and is dealt with in the Directors’ interim reports and in the report of the Chairman of the Audit and Risk Management Committee (ARMC).
- 3.4. Minute 3.3.8 and 5.9.6 – Professor Bailey advised members on the problems of sourcing expert advice on the maintenance of the Grade A Observatory building. Members asked that a tender be developed to procure specialist advice to maintain and protect the Observatory main building.
- 3.5. Minute 3.5 – the Observatory has received correspondence from the Armagh City and District Council on the issue of the Meridian Markers; this will be progressed in due course.
- 3.6. Minute 4.1 and 4.2 – the replacement QUB nominee on Management Committee and vacancy on Audit and Risk Management Committee remains outstanding. A letter of thanks has been sent to Professor Dufton expressing the Committee’s appreciation for his services to the corporation. The Observatory Director’s interim report provided further background on this matter. There was extensive discussion on the issue of QUB nominees to the Board of Governors and Management Committee.
- 3.7. Minute 5.8.5 Insurance Survey – a risk advisor employed by the corporation’s insurers, Ecclesiastical Insurance Company, visited the site in 2011 September and focused on the insurance company’s view of the principal risks faced by the corporation. The report, received on 23 November 2011, had 10 recommendations that have been or are being dealt with by corporation staff.
- 3.8. Minute 5.9.2 – Professor Bailey was still investigating the ability of Observatory staff and accredited students to access online journals via the QUB portal.
- 3.9. Minute 5.9.4 – Mr Copeland has obtained agreement from the contractor to meet the cost of repair to the damaged historic window in the Observatory staff room.

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- 3.10. Minute 5.9.7 – Professor Bailey advised members that a paper including the Job Description for the Assistant Groundsman will be circulated to the Employment Conditions and Remuneration Committee.
- 3.11. Minute 5.18.1 – Dr Mason advised members that in light of falling visitor numbers and the on-going economic depression any review that might increase the costs of Outreach activities would be imprudent. Members agreed to defer a review.
- 3.12. Minute 5.18.2 – Dr Mason advised members that all Planetarium Job Descriptions and job titles would be referred to the Employment Conditions and Remuneration Committee.
- 3.13. Minute 6.3 – an update on the matter of the subsidised pension contributions issue is dealt with in the report of the Chairman of ARMC.
- 3.14. Minute 9.1 – information on the Robinson Biennial Lecture was included in Professor Bailey's interim report
- 3.15. Minute 9.2 Heritage Lottery Fund – Mrs Wilson advised that she would contact the Heritage Lottery Fund and arrange a meeting.

4. CHAIRMAN'S BUSINESS

- 4.1 The Acting Chairman advised that Dr Byrne had submitted his resignation from the Management Committee to Archbishop Harper on 30 January 2012. Dr Harper had expressed his thanks to Dr Byrne for his advice and expertise to the Observatory and Planetarium since 1966. All members echoed these sentiments and warmly applauded Dr Byrne for his services.
- 4.2 Dr Byrne took over the Acting Chairman role and advised members that Archbishop Harper had recommended that Professor Hibbert be considered by members for the position of Deputy Chairman of the Management Committee. Mrs Wilson proposed Professor Hibbert as Deputy Chairman. Professor Ray seconded this proposal and all members approved this proposal.
- 4.3 Dr Byrne advised Members that the recent draft report on the ARMC by DCAL has highlighted a potential conflict of interest in relation to the Chairman of ARMC. The draft report highlighted that the Chair of the ARMC is also the Deputy Chair of the Management Committee and has on occasions chaired the Management Committee in this capacity. This would be contrary to DFP and National Audit Office guidance, which advises that in the interest of objectivity and independence the Chair of the Audit Committee is a different person from the Chair of the Management Committee. The draft report recommended that in order to enhance objectivity and independence the Chair of the Audit Committee is not also the Deputy Chair of the Management Committee and therefore would not chair Management Committee meetings. Therefore Dr Byrne asked that Members nominate a Chairman of ARMC who is not the Deputy Chairman of the Management Committee. Archdeacon Hoey proposed Mr Hannam as Chairman of ARMC. Professor Hibbert seconded this proposal and all members approved this proposal.
- 4.4 Dr Byrne advised Members that the Deputy Chairman of the Management Committee is ex officio Chairman of the Employment Conditions and Remuneration Committee. Therefore a vacancy had arisen on the Employment Conditions and Remuneration Committee. Dr McKay volunteered to replace Professor Hibbert. Professor Ray proposed Dr McKay as a member of the Employment Conditions and Remuneration Committee. Professor Oudmaijer seconded this proposal and all members approved this proposal.
- 4.5 Professor Hibbert reverted to the Acting Chairman role and asked Members to give consideration to nominees on the Board of Governors and Board of Governor nominees to the Management Committee. Professor Bailey reported that Queen's University Belfast had confirmed that it was prepared to nominate a senior academic to serve on the Board of Governors. Members agreed that other nominees to the Board of Governors and Board of Governor nominees to the Management Committee should be a matter for the Board of Governors meeting on 23 March 2012.

5. DIRECTORS' INTERIM REPORTS

Professor Bailey referred to the following matters in his interim report:

- 5.1 Key Performance Indicators – Details of the Observatory's Key Performance Indicators (KPIs) and trends were detailed in the report.

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- 5.2. Capital Projects – The Post Project Evaluation (PPE) for the Armagh Robotic Telescope was submitted to the Department in January and approved subject to minor revision.
- 5.3. DCAL Funding
 - 5.3.1 Funding – Resource – The Observatory and Planetarium received an uplift of £30k in their non-cash budget, which has been split between the two organizations. The Observatory was also awarded an uplift of £37k in the 2011 October monitoring round. Further Resource funding (£9.9k) was allocated to the Observatory in early 2012 January to support various elements of the Observatory’s Programme of Science in the Community.
 - 5.3.2 Funding – Capital – The Observatory was awarded capital funding of £67.5k as a result of requests made to the 2011 funding rounds. The majority of this funding will be directed towards upgrading the Observatory’s technical equipment and related peripherals.
- 5.4. Research, Conferences, Training, Grants and Meteorology
 - 5.4.1 Advances in Astronomy and Astrophysics – (a) SALT Observations of an Easily Reached Near-Earth Asteroid: Apostolos Christou reports that his observations of the near-Earth asteroid (190491) = 2000 FJ10, conducted during 2011 September with the Southern African Large Telescope in collaboration with Tomasz Kwiatkowski (Astronomical Observatory of the Adam Mickiewicz University of Poznań, Poland) and Amanda Gulbis (South African Astronomical Observatory, Cape Town, South Africa), resulted in its successful physical characterization; and (b) Gavin Ramsay reports that he was successful in obtaining 10 nights on the McGraw Hill 1.3m telescope on Kitt Peak in 2012 May as part of the RATS-Kepler project to identify short-period variables in the Kepler field. The team has also obtained 3 nights on the INT in 2012 June to obtain followup spectra of variable sources in the Kepler field identified last summer.
 - 5.4.2 Training – Mandatory Fraud Awareness training will take place on 2012 March 12 (mainly Observatory staff) and 2012 March 26 (mainly Planetarium staff).
 - 5.4.3 Visitors - Professor Bailey detailed the steady flow of research, workshop and conference visitors who come to visit the Observatory and collaborate with staff on joint research projects.
 - 5.4.4 Grants – (a) Gerry Doyle led a successful application to the STFC for the Observatory’s first STFC Consolidated Grant of £306k. The result, announced early in 2012, is that the Observatory will have one STFC PDRA for the next three years, starting 2012 April 1. The PDRA will work with Jorick Vink on a project to analyse the mass loss behaviour of the most massive stars in the Universe; and (b) Gavin Ramsay’s application to the STFC for funding to support Observatory staff to travel to remote STFC-approved telescopes via the Panel for Allocation of Telescope Time (PATT) programme was successful. The Observatory was awarded a travel grant of £21k for the two-year period 2011 October 1 to 2013 September 30, a 15% increase over the previous two-year period.
 - 5.4.5 Environmental Studies and Meteorology – (a) Although the extremes of cold weather experienced in 2010 were not repeated, the weather in 2011 was mild and exceptionally changeable; (b) it was a year of records, especially considering the early and later parts of the year; (c) 2011 Autumn was exceptionally mild, characterized by largely dull and very wet weather, and the dullest autumn since 1989; (d) With precipitation for the three autumn months totalling 365.3 mm, autumn of 2011 was also the wettest autumn on record, i.e. since the Observatory’s rainfall records began in January 1838; (e) October 2011, with a total precipitation of approximately 182.75 mm, was the second wettest October on record, the wettest October since 1870 (193.75mm); (f) with an average daily temperature of 11.7 °C, autumn 2011 was also the warmest autumn on record at Armagh since the Observatory’s records of average daily temperatures began in 1795; (g) 2011 Christmas Day, with a maximum temperature of 13.5 °C, was the warmest Christmas Day on record since records of the maximum daily temperature began in 1843; (h) 2011 December 31 produced the third warmest New Year’s Eve on record (12.1 °C); and (i) Taking 2011 as a whole, both spring and autumn were exceptionally mild, and this helped to make 2011 the sixth warmest year on record (average temperature 10.29 °C) despite a relatively cool summer (average temperature 14.1 °C, compared with 15.0 °C for the recent 30-year average).

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5.5 Museum, Library, Archives and Donations

- 5.5.1 Historic Instruments – (a) Loan of Six-Inch Reflector, by Thomas Short, London, 1768/1769: The packing of this instrument for transport to the National Maritime Museum (NMM) has been completed by Thirza Mulder, and it is awaiting collection by the NMM's courier. It is expected to be away from the Observatory during the period roughly 2012 March to October; and (b) there has been no further progress on identifying the location of the missing Sharp Clock but W.F.A. Ellison (grandson of the former director, the Revd W.F.A. Ellison) has identified a photograph of the clock taken by his grandfather c.1923.
- 5.5.2 Donations – (a) 'Risk' (L. Skinns, M. Scott, Cox, T., 2011, Cambridge University Press), donated by Mark Bailey; (b) 'The European Southern Observatory and Czech Astronomy' (Hadrava, P., 2006, Academia, Praha, Czech Republic), donated by Oldřich Vlasák; and (c) 'The Great Melbourne Telescope' (Gillespie, R., 2011, Museum Victoria Publishing, Melbourne, Australia), donated by Richard Gillespie.

5.6 Science in the Community, Buildings, Grounds and Astropark

- 5.6.1 Science in the Community – (a) School Work-Experience and Summer Programme - a list of school work-experience students supervised by Armagh Observatory staff during 2012 was provided; (b) Staff at the Observatory, led by Simon Jeffery, will continue to support the Nuffield Sentinus programme during 2012, with the aim of supervising up to four school work-experience students on advanced research projects associated with the Nuffield STEM Bursary Scheme; and (c) it is currently expected that one IAESTE student will be recruited on to the IAESTE undergraduate exchange programme for an approximately six-week summer research project.
- 5.6.2 Lifetime Opportunities and Targeting Social Need – (a) The Librarian, John McFarland continues to supervise a young adult with complex needs for 3–4 hours per week on library and archives duties; (b) During late 2011 a second such person joined the Observatory for one day a week and is supervised by the Grounds and Meteorological Officer, Shane Kelly, on a project to improve documentation of the flora and fauna in the Observatory Grounds and the Phenology Garden; (c) David Asher reported that the Observatory's Faulkes Telescope programme in collaboration with secondary schools has continued using observing time kindly provided by the Faulkes Telescope Project (Cardiff) and the Las Cumbres Observatory Global Telescope Network. This work simultaneously achieves scientific and educational objectives; and (d) during early 2012 February David Asher supervised four work-experience students from schools across Northern Ireland on projects to use the Faulkes Telescopes North and South to observe interesting solar-system objects including comets, near-Earth asteroids and Pluto-like trans-Neptunian objects.
- 5.6.3 Universe Awareness (UNAWA) – (a) The EU-UNAWA programme follows broadly the same vision as UNAWA, namely to use the beauty and grandeur of the Universe to inspire young children and encourage them to develop an interest in science and technology. It has the further aim to introduce children to the idea of global citizenship and tolerance at a crucial stage of their development, and thereby to demonstrate that they are part of a wider international community; (b) following the appointment of the Observatory's EU-UNAWA UK Project Manager, Libby McKearney, in 2011 September, the core element of the Observatory's EU-UNAWA programme has been to provide in-service training in astronomy for primary school teachers. This enables us to reach many more children than would otherwise be possible with our limited human resources through a simple classroom-based programme, whilst simultaneously addressing legacy issues how to maintain and sustain the programme in the long term; (c) Libby McKearney and Mark Bailey delivered four one-day primary-sector teacher training courses during the last 3 months of 2011, reaching a total of 67 schools in Northern Ireland. These one-day courses include presentations, Internet/computer research and practical activities; they are designed to increase teachers' knowledge of the subject and give them the self-confidence to introduce astronomy into the classroom and their respective school environments; (d) Armagh Observatory staff joined international EU-UNAWA colleagues Lara Albanese and Alessandra Zanazzi from the world-famous Arcetri Observatory, Florence, Italy, to provide a special series of EU-UNAWA activities in association with the BBC's Stargazing LIVE events during 2012 January. On 2012 January 17 approximately 98 children and 6 teachers from Mount St.

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Catherine's Primary School, Armagh, participated in a series of science experiments to demonstrate the effects of sound waves, air pressure and gravity, and watched the Italians' fascinating Shadow Theatre production "Galileo Galilei: A Sky Full of Discoveries"; and (e) The following morning, a further 53 primary school children and their teachers participated in the same range of international EU-UNAWA activities as an introduction to the Observatory's main BBC Stargazing LIVE event organized at An Creagán, Co. Tyrone, in partnership with the Northern Ireland Environment Agency (NIEA). The three schools were St. Mary's Primary School, Killyclogher; St. Mary's Primary School, Pomeroy; and St. Joseph's Primary School, Killeenan. This EU-UNAWA session was extended to include practical activities designed to demonstrate the arrangement of the planets in the solar system and their relative sizes and distances one from another. Also included were observations of sunspots using the method of projection, and an interesting 'Life in Early Times' technology demonstration that included stone-age pot-making, graphically illustrating the life and times of the people who built the stone circles at Beaghmore

- 5.6.4 Public Lectures, Special Events and Other Activities – (a) The Observatory worked closely with other organizations during the period centred around the BBC Stargazing LIVE programmes broadcast from 2012 January 16 to 18. Partners included the Northern Ireland Environment Agency (NIEA) and the Irish Astronomical Association (IAA); (b) Observatory staff and students also participated in BBC Radio Ulster's 'Starry Starry Night' programme broadcast live from Delamont Country Park, Killyleagh, Co. Down, on 2012 January 27 attended by between 500 and 600 members of the general public, many of whom were children and young people; (c) the Observatory's first Stargazing LIVE activity, on 2012 January 17, involved participation in the IAA's main event at Lough Neagh Discovery Centre, Oxford Island, Co. Armagh. This promoted astronomy generally as well as the work of the Observatory and its involvement in EU-UNAWA. The event was a huge success in spite of cloudy skies, registering an official attendance figure of around 1200 people, roughly a quarter of whom were children and young people; (d) the event also showcased the Observatory's 'From Earth To The Universe' (FETTU) exhibition of A0-size posters originally developed as part of the 2009 International Year of Astronomy; (e) the Observatory's main BBC Stargazing LIVE activity took place on 2012 January 18 at An Creagán and Beaghmore Stone Circles, Co. Tyrone, in partnership with colleagues in the Northern Ireland Environment Agency (NIEA) and with the support of members of the IAA. This and related Stargazing LIVE events attracted very significant media attention, including newspaper articles, radio interviews and video clips on television, the Internet and news bulletins; (f) Simon Jeffrey was involved in two STEM-NET Ambassadors Careers Advice sessions involving more than 500 Year 10 pupils in schools in St Genevieve's High School and St. Louise's Comprehensive School (c.350 pupils from St. Louise's Comprehensive College, St. Rose's Dominican College, The Christian Brothers' School and St. Dominic's Grammar School for Girls). The events were organized by W5 under the STEM Ambassadors Programme in response to research which has identified that not enough young people are choosing STEM subjects to maintain a steady supply of skilled scientists to filter into our local economy; and (g) the posters created as part of the 2009 International Year of Astronomy Cornerstone project 'From Earth To The Universe' (FETTU) remain available for public use and towards the end of 2011 and early 2012 were loaned to the Irish Astronomical Association (IAA) for use in several of the IAA's well supported outreach events.
- 5.6.5 Group Visits and Guided Tours – Observatory staff and students continue to host a wide range of group visits and guided tours of the Observatory, Astropark and Human Orrery, involving both formal and informal learning, covering people of all ages and backgrounds. Professor Bailey provided a summary of the principal guided tours during the year to date.
- 5.6.6 Press Releases, Media Citations and Media Coverage – (a) 27 press releases were issued during the calendar year 2011, nearly all of which (i.e. 26, or 96%) were picked up and published at least once in one or another form. There were also approximately 262 identified media citations in the same period, highlighting the Observatory's continuing high public profile on the UK and international stage. Three press releases were issued in the period 2012 January 1 to January 31, leading to 37 media citations over the same period; and (b)

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John McFarland reports that he dealt with approximately 190 caller, e-mail, letter and telephone enquiries during the calendar year 2011, including some that have required significant further research and follow-up correspondence. Other members of staff also frequently provide responses to press and other public enquiries on astronomy and/or what has been seen in the night sky, but these are not centrally recorded. John McFarland also reports that he dealt with a further 43 enquiries from members of the public during the period 2012 January 1 to January 31.

- 5.6.7 Other Outreach Activities – (a) John McFarland reports that the visit by Michael Portillo to the Observatory on 2011 August 31, in which he was interviewed for an episode of the BBC2 programme ‘Great British Railways’ (c.5 million viewers), was broadcast on 2012 February 1; (b) The film clip flowing from the Children’s BBC television visit to the Observatory and Planetarium on 2011 July 30 was broadcast as part of the CBBC programme ‘All Over the Place’ on 2012 February 8. This single film clip is estimated to have reached more than a million children; and (c) John McFarland hosted a visit and was interviewed on 2012 January 14 for MayaVision International, a television company who are making a documentary for BBC2 titled ‘The People’s History’. The programme is provisionally scheduled for broadcast in early summer 2012.
- 5.6.8 Future Events – (a) Jay Tate (Spaceguard Centre, Knighton, Powys) will deliver the first lecture “The Science of Armageddon: An Update” in St. Patrick’s Trian on the morning of St. Patrick’s Day 2012; (b) this will be followed by a talk by John Butler (Armagh Observatory) on the Transit of Venus; (c) the Observatory will host tours of the Observatory Grounds and Astropark after these St. Patrick Day lectures, and intends to include a small exhibition of the Transit of Venus to raise awareness of this year’s Transit, on 2012 June 5/6; (d) Professor David Southwood, former Director of Science and Robotic Exploration at the European Space Agency and the next (2012–2014) President of the Royal Astronomical Society, will deliver an associated Robinson Schools Lecture titled “What is Space Exploration About?” in the Royal School Armagh on the afternoon of Wednesday 21 November 2012; (d) the 2012 Robinson Lecture will be delivered at 20:00 on the evening of Thursday 22 November by Professor Southwood. The title of the Robinson Lecture will be “To Mars, Titan and the Universe Beyond: Europe’s Arrival on the Space Frontier”; and (e) on 2012 May 15, Sir John Houghton CBE FRS will speak on the subject of “God, Science and Global Warming” in the Market Place Theatre, Armagh. The newly established Faith and Science Partnership, a body including the Armagh City and District Council and members of the University of the Third Age (U3A), are organizing the lecture in Armagh.
- 5.7 Governance and Accountability
- 5.7.1 Risk Register – The most recent version of the risk register, last updated 2012 January 31, was appended to this report for information and comment as appropriate, as too was an updated copy of the Director’s most recent Quarterly Assurance Statement for the DCAL.
- 5.7.2 Complaints and Positive Comments – There have been no complaints since the last meeting of the Management Committee. During the first month of 2012 the Observatory or its staff received five unsolicited positive comments.
- 5.7.3 Freedom of Information – There have been no FOI requests since the last meeting of the Management Committee. Professor Bailey added that in addition to formal FOI requests, the Observatory continues to be subject to many requests for information on its meteorological records, and to a continuous stream of requests concerning the history and heritage of astronomy in Armagh or recent advances in this rapidly developing subject.
- 5.7.4 Charity Commission Northern Ireland – There has been no movement on this issue since the last meeting of the Management Committee.
- 5.7.5 Collaboration with Queen’s University Belfast – (a) The Director reported that the draft Memorandum of Agreement between the Armagh Observatory and Queen’s University Belfast, which had been considered and agreed by the University’s Research and Postgraduate Committee at its meeting on 2011 October 13 and ratified at the last meeting of the Management Committee (2011 November 17), has unfortunately not yet been formally signed and sealed; (b) QUB Registrar’s Office had indicated that the University would not be filling its vacant position on either the Board of Governors or the Management Committee at

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this time but has subsequently confirmed that it is prepared to nominate an academic to serve on the Board of Governors. The University wishes to leave vacant at this time its position on the Management Committee.

- 5.8 Consideration of the Observatory Director's Interim Report
 - 5.8.1 Professor Oudmajer congratulated Observatory staff in obtaining STFC funding of £306k for the Observatory's first STFC Consolidated Grant but felt that FEC (Full Economic Costs) had been reduced by STFC in an effort to fund more PDRA posts. Professor Bailey advised members that Observatory staff had submitted a proposal for funding of £1.2m and STFC had funded only one PDRA, 0.30 FTE of Principal Investigators and related travel and capital.
 - 5.8.2 Members again discussed the issue of a Queen's University Belfast nominee to serve on the Board of Governors. Members agreed that other nominees to the Board of Governors and Board of Governor nominees to the Management Committee should be matters for the Board of Governors meeting on 23 March 2012.
 - 5.8.3 Professor Ray requested that both Directors liaise with Dublin Institute of Advanced Studies (DIAS) in an effort to co-ordinate efforts to promote international guests and speakers on an all Ireland basis.

Dr Mason referred to the following matters in his interim report:

- 5.9 Key Performance Indicators – Details of the Planetarium's Key Performance Indicators (KPIs) and trends were detailed in the report. Dr Mason was pleased to report that visitor numbers appear to be holding up, and if the current trend continues we will hit our target for the year. This is against a record of problems with travel and a general lack of money in schools and the educational system. Visitor satisfaction figures remain consistent for each quarter and as Planetarium staff are now running the Planetarium coffee shop it is hoped that the visitor satisfaction will improve. Dr Mason also provided an update of performance in February 2012.
- 5.10 Risk Register – The most recent version of the risk register was appended to this report for information and comment as appropriate, as too was an updated copy of the Director's most recent Quarterly Assurance Statement for the DCAL
- 5.11 Marketing Activities – (a) December 2011 was a busy month with a 30% increase in visitor numbers compared to 2011. This increase was ascribed this to the successful flier distribution in Belfast which we undertook in November 2011; (b) In January 2012 Robert Hill ran an exciting 3D image presentation titled "A Cosmic Journey" at the BT Young Scientist event in Dublin and talked to more than 7,000 young people, with an increased involvement of schools from NI. This event, held annually at the RDS in Dublin, is jointly run with the NI Space Office and our joint invitation renewed for a further two years is part of our STEM delivery agenda; (c) Planetarium staff were heavily involved in the Stargazing Live 2012 event with the BBC which ran over three nights. Planetarium staff were on duty at the main NI event at the Lough Neagh Discovery Centre, and an extra event was ran at the Planetarium on the 18 January. Both were very well attended, and the night at the Planetarium also enjoyed clear skies. Collaboration with the East Antrim Amateur Astronomical Society worked well - they showed the public a number of telescopes and all of the visitors had an opportunity to see Jupiter, which was high in the night sky. Planetarium staff also ran a successful series of six talks on meteorites and our new Aurora show. This event, marketed by Planetarium staff with a flier campaign, and through the BBC website, attracted more than 400 customers; (d) Planetarium staff Martina Redpath and Sinead McNicholl attended a special event with the National Trust on January 28th at Lagan College where a portable planetarium air rockets and an art event blended into the general programme which attracted approximately 405 visitors, (e) Science Communicator Colin Johnston has been very busy with adult education courses at Queens, the running of our very successful blog and Astronotes on line, and liaising with the media; and (f) Colin represented the Planetarium at the BBC Radio Ulster event at Delamont Country Park on Friday evening 27 January 2012.
- 5.12 Visitors – A very successful meeting was held at the Planetarium on 2 February 2012 when Robert Hill and the Director organised a number of people from the local universities and their spin-off companies to make a pitch to the Shadow Secretary of State for NI, Vernon Coaker and the DARD Minister, Conor Murphy. This was a very successful meeting where all present made that case the NI was ahead of the game in the creative and innovative space based industries and that this was a

potential growth area which NI was well placed to exploit. Mr Coaker promised to bring this up at Westminster. Both Mr Coaker and Mr Murphy were shown all around the Planetarium and saw a Digistar 4 show.

- 5.13 Future Events – (a) Upcoming Creative Month 2012 events are being funded by the DCAL Creative Industries fund. Planetarium staff will run another Cosmic Cuilcagh event at the Marble Arch Cave site in Fermanagh at the end of February 2012 and will be joined by amateur colleagues from the Irish Astronomy Association. Geologist Dr Mike Simms from the Ulster Museum will also make presentations about meteorites and fossils from Fermanagh. Three Planetarium staff will attend and we will run portable planetarium shows and other activities as well as the meteorite talks. Last year over 1000 people attended the event, despite the heavy snowfall wiping out day one as the roads were very tricky to navigate on the slopes of the Cuilcagh mountain. This is a hard to reach rural audience, and Planetarium and Marble Arch Geopark staff hope that they will come again in even larger numbers; (b) Planetarium staff have a new development planned for the theatre involving a motion sensor that we hope may enable us to enhance the visitor experience, particularly for special needs groups; and (c) The Education and Training Inspectorate (ETI) have kept in touch and will be visiting again to Quality Assure Planetarium work, making sure that staff are still promoting literacy and numeracy in our programmes.
- 5.14 Governance and Accountability
- 5.14.1 Equal Pay Compensation Lump Sum – NIPSA intends to present a case on behalf of its members equal pay award claim, in line with what has happened with the NICS staff at a County Court Hearing in March 2012.
- 5.14.2 Health and Safety Report – Dr Mason updated members on (a) weekly fire drill and fire points' checks; (b) accidents since the last report; and (c) six monthly inspections of the security cameras and alarms.
- 5.14.3 Maintenance Issues – (a) In December 2011 the fire exit door to the rocket room was badly damaged by high winds and the door replaced; (b) the boiler house has recently been cleaned out and the floor painted by CPD; and (c) the garage area in the Planetarium was cleared of all rubbish and clutter in early January by the staff and has been kept clean and safe and free from clutter.
- 5.14.4 Staffing Matters – (a) members of staff at the Planetarium will be taking part in a Fraud Awareness Training session in March 2012; (b) the Employment Tribunal case has been adjourned until 20 and 21 February 2012; (c) two new Education Support Officers (ESO) (Nick Parke and Kerry Scullion) started employment on 9 January 2012 and were appointed from a field of 44 applicants. Both have undergone extensive training and familiarisation with our systems, processes and policies. Their induction training has taken most of January and the two new staff have integrated well into the team; and (d) ESO Mary Bulman has been heavily involved with school outreach visits. This is an overhang from a hugely successful Christmas card competition and staff are running a number of outreach visits for the schools that sent in entries as a reward for the children's hard work.
- 5.14.5 Digistar 4 – New hard disk drives have arrived and the rack caddies ordered that will allow a double backup system. A software update has been installed that should make the backup process easier. In January 2012 a problem with the projector system was solved within an hour by a computer and graphics card swap.
- 5.15 Consideration of the Planetarium Director's Interim Report
- 5.15.1 Members questioned Dr Mason on the capital approval to fund large touchscreens and whether consideration had been given to the purchase of the latest iPad technology. Dr Mason explained the differences between Dell touchscreens and problems with the timing of the launch of iPad 3. Members encouraged Dr Mason's use of discretion on this matter and asked that Dr Mason report in June 2012 on this issue.

(Archdeacon Hoey left at 1.00 pm.)

- 5.15.2 Members questioned Dr Mason on Planetarium display areas, touchscreen displays and Digistar 4 shows and agreed to meet 30 minutes before the next Management Committee meeting to view these displays and shows in the Planetarium.

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6. REPORT OF THE CHAIRMAN OF THE AUDIT AND RISK MANAGEMENT COMMITTEE

- 6.1 Equal Pay Lump Sum - (a) The Business Case on the same equal pay same lump sum compensatory payment afforded to NI Civil Service staff was re-submitted to DCAL in November 2011 for inclusion in the December monitoring round; (b) DCAL has again advised that the bid would not be put forward for consideration to DFP, noting “that the lump sum element that was awarded to those staff in the NICS was as a result of negotiations between that group of staff and management. This does not imply that the same agreement would automatically apply to any other groups of staff in Arms Length Bodies (ALBs)”;
- 6.2 Subsidised Pension Contributions – A response is awaited from DCAL and DFP on the subsidised pension contributions issue.
- 6.3 Employee Dismissal – (a) the claim for unfair dismissal by a Planetarium employee against the Governors of Armagh Observatory and Planetarium was held on 24 and 25 January 2012 at an Industrial Tribunal in Belfast; (b) Dr Mason advised members that the Chairs of the Disciplinary and Appeal panels had given evidence and, after some legal arguments, the case was adjourned to 20 and 21 February 2012; and (c) Dr Mason also advised that DCAL staff have been given an update on this matter.
- 6.4 Internal Audit Plan for 2012/2013 – (a) Management Committee will be asked to approve the Internal Audit plan for 2012/2013 at its next meeting. The plan will include reviews of the Potential Conflict of Interest and Gifts and Hospitality policies as requested at October 2011 ARMC; and (b) ARMC members expressed concerns about the resources required to deliver the additional audits requested by stakeholders within the 23 days budgeted for internal audit work in 2012/2013.
- 6.5 Valuation of Land and Buildings – (a) The last valuation of the corporation’s assets was undertaken by DFP, Valuation and Land Agency (now Land and Property Services (LPS)) at 31 March 2007 and a further revaluation is due at 31 March 2012; (b) the Joint Administrator advised ARMC members on 1 November 2011 of the need for a quinquennial review and has contacted Land and Property Services to arrange a revaluation at 31 March 2012 at a cost of £3,000 plus specialist fees (if required); (c) The LPS District Valuation Officer made his first visit to the corporation on 17 January 2012 and the valuation report should be completed by 29 February 2012; and (d) DCAL has been advised that changes in valuation will require resource cover, probably through Annually Managed Expenditure (AME).
- 6.6 Complaint – Internal Communication between Directors and Staff – (a) the Chairman of ARMC advised members that a member of the Management Committee had been contacted by an employee raising concerns about the lack of communications between staff and the Director; (b) the Management Committee member had contacted the Chairman of ARMC on this matter and asked if these concerns could be investigated; (c) ARMC discussed the issue and the need for either a formal internal audit review or an informal internal assessment of the quality of communications between Directors and staff; and (d) ARMC Members asked the Joint Administrator to research best practice for internal communications, based on ASM, NIAO and DCAL policies, and produce a short report for ARMC and Management Committee on his findings.
- 6.7 Internal Audit Matters
 - 6.7.1 ARMC reviewed the ASM Accountants’ Internal Audit reports (included in Management Committee papers) for the Observatory and Planetarium on (a) payroll, pensions and travel; (b) purchasing and procurement; (c) bank and cash; (d) financial and management information; (e) follow up reviews; and (f) review of DCAL requirements for the corporation on the business case processes and validation of Key Performance Indicators (KPIs) and Public Service Agreements (PSAs).
 - 6.7.2 ASM Accountants have provided levels of assurances for the corporation as either substantial (a robust system of risk management, control and governance is in place which should ensure that objectives of the corporation are fully achieved) or satisfactory (there is some risk that corporation objectives may not be fully achieved and, as a consequence, some improvements are required to enhance the adequacy and/or effectiveness of risk management, control and governance).

- 6.7.3 In areas where ASM Accountants had given satisfactory internal assurances, Directors and staff have proposed a timeframe to implement the Internal Auditor's recommendations.
- 6.7.4 Some recommendations falling within the scope and responsibility of DCAL, e.g. a revision of the Management Statement and Financial Memorandum (MSFM), may be delayed because of resourcing issues within DCAL.
- 6.8 NIAO External Audit 2011/2012 – (a) NIAO advised ARMC that it issued a tender in November 2011 to source a provider for the external audit of the corporation's Annual Report and Annual Accounts. The result of that exercise is that Miscampbell and Co. of Belfast will provide external audit services, on behalf of NIAO, for the period 2011-12 to 2013-14 (with an option to extend for 2 years); (b) Management Committee members and Accounting Officers are asked to advise the Joint Administrator if there is any potential conflict of interest in the delivery of external audit services by Miscampbell and Co; and (c) NIAO will advise Chair of ARMC and Directors of its plan for the external audit of the 2011/2012 Annual Report and Annual Accounts to ARMC and formally present that plan to the June 2012 ARMC meeting.
- 6.9 Review of Internal Audit provision – (a) the contract to provide Internal Audit services to the corporation was publicly tendered in 2009 through SELB, Centre of Procurement Excellence (COPE). The contract was awarded to ASM Accountants and runs to 31 March 2012 with a possible extension of 12 months; (b) HM Treasury guidance required a review by the sponsoring Department, DCAL, of the quality of the service of the contract. DCAL staff met the Chairman of ARMC, Directors and Joint Administrator and ASM Accountants and the report was received on the review by 30 January 2012; and (c) the corporation has accepted the report recommendations.
- 6.10 Matters for review – (a) the Risk Registers and Quarterly Assurance Statements for quarter ended 31 December 2011 were provided to members, (b) as both the Observatory and Planetarium had not submitted the first draft of their 2012/2103 Business Plan to DCAL by 31 January 2012, Directors had revised the Business Planning section of their Quarterly Assurance Statements to reflect that this requirement was only partly met; and (c) the Observatory and Planetarium Single Tender Actions above £5k, the Hospitality and Gifts Registers and the Directors' expenses claims were presented to the ARMC for inspection. No procurement using Single Tender Actions above £5k were made and no matters of concern were raised by ARMC members.
- 6.11 Resource and Capital Funding – (a) DCAL has approved additional funding following 2011 monitoring rounds to increase the Observatory's resource and capital budget to £1,076.9k and £67.5k, respectively; and (b) DCAL has approved additional funding following 2011 monitoring rounds to increase the Planetarium's resource and capital budget to £498k and £36k, respectively.
- 6.12 Capital Bids for 2012-2015 – In December 2012, DCAL asked for tentative bids as a result of potential slippage on the A5 dual carriageway project. Possible future projects were presented to the Committee.
- 6.13 Fraud Awareness Training – All staff are required to attend Fraud Awareness Training. These are to be delivered by Department of Agriculture and Rural Development (DARD) staff and are scheduled for 12 and 26 March 2012.
- 6.14 Education Support Officers – Dr Mason advised ARMC that two Education Support Officers had started at the Planetarium on 9 January 2012. As the new employees had not been cleared by Access NI to work with children and vulnerable adults they were supervised on all occasions where they have been in contact with children. Access NI clearance has been received.
- 6.15 Bribery Act 2011 – Mr Copeland, in association with ASM Accountants, was asked to produce a one-page summary for staff and stakeholders of the implications of the Bribery Act and ensure that this issue was included in the fraud awareness training.

7. ANY OTHER BUSINESS

- 7.1 Extension of ASM Accountants contract for provision of Internal Audit services
- 7.1.1 The contract for the provision of Internal Audit services to the corporation was publicly tendered by SELB COPE, in September 2009 and awarded to ASM Accountants for a three year period to 31 March 2012 with an option to extend the contract for a further 12 month period.
- 7.1.2 The Joint Administrator e-mailed members of ARMC and asked for views on either re-tendering the contract or taking up the option of the contract extension.
- 7.1.3 All ARMC members have replied and confirmed that they are happy with both the quality of

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the Internal Audit provider and all expressed a preference for the extension of the ASM Accountants contract for a further year to 31 March 2013. In addition ARMC and Directors have received a positive report from DCAL on the quality of Internal Audit services provided by ASM Accountants.

- 7.1.4 The proposal to extend the ASM Accountants contract for one year was made by Dr Byrne and seconded by Mr Hannam and approved by members. Members asked the Joint Administrator to explore the possibility with DCAL and SELB of extending the contract to five years, similar to that of the NIAO external audit contract.

(Mrs Wilson left the meeting at 1.30 pm)

- 7.2 Presentation by Professor Ray on Observatory publications, citation statistics, and scientific impact measures for the Observatory from 1990 to the present day

Professor Ray presented information on the productivity and impact of the published work of Observatory staff since 1990 to 2011. Professor Ray provided information that showed that the number of publications and citations per year had increased significantly from 1990 resulting in a Hirsch Index of 25. Key points were that citations had increased faster than publications, and that non-refereed journal publications are rarely cited.

The meeting ended at 1.40 pm.

8. DATE OF NEXT MEETING

The next meeting will be on Thursday 21 June 2012 in the Cassini Room, Armagh Planetarium. Members were asked to meet at 10am to allow a tour of Planetarium displays and a show in the Digital Theatre.

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 Management Committee
Dated: 21 June 2012