



*Advancing
Astronomy and
Geophysics*

ROYAL ASTRONOMICAL SOCIETY

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MINUTES OF THE COUNCIL MEETING 9 OCTOBER 2009 AT 1100 IN THE COUNCIL ROOM

1. PRESENT: Professor A.C. Fabian (President), Professor A.M. Cruise, Professor J.E. Drew, Professor M.A. Hapgood, Professor J.C. Zarnecki (Vice-Presidents), Professor P.G. Murdin (Treasurer), Dr H.J. Walker, Professor M.A. Barstow and Dr I.A. Crawford (Secretaries), Professor K. Blundell, Dr E. Bunce, Dr I.F. Corbett, Professor M.G. Edmunds, Professor A.W. Hood and Dr J.A. Wild.

Professor O Lahav (by telecon until 1230)

APOLOGIES: Dr B Barber; Dr P Browning; Professor B.K. Gibson; Dr. J Greaves; Professor R Ivison;

IN ATTENDANCE: Dr R Massey (Policy Officer); D Elliott (Executive Secretary)

2. MINUTES

The minutes of the meeting of 28 July 2009 were approved and signed

3. MATTERS ARISING

3.1 Professor Hapgood informed Council that Oxford Economics planned to produce a report summarising the (unexceptional) results from the Economic Impact Study. The Study had exposed the severe methodological problems inherent in capturing economic impact data from UK fundamental physics research, so the Society (and probably other sponsors) would not take up the option to extend the Study through additional case studies.

Professor Cruise noted that he was in the process of analysing the knowledge transfer statements contained in grant applications to the STFC over the past 3 years. Council agreed that this might yield some interesting data.

3.2 Professor Hapgood up-dated Council on the transfer of funding responsibility for STP from STFC to NERC. While good working relations had been established with NERC by scientists at the operational level there remained some way to go to complete the handover for major engagements such as EISCAT

3.3 Professor Cruise reported that he had responded on behalf of the Society to the BNSC consultation on establishing a National Space Conference reiterating its willingness to assist with the identification of speakers but declining to merge the

NAM, with its very different scope, into it. Professor Cruise also mentioned plans to celebrate the 50th anniversary in 2011 of Yuri Gagarin's space flight.

3.4 The Executive Secretary informed Council of the signing of the agreement with Winton Capital establishing 2 annual Awards adding that Winton Capital had unilaterally offered to extend the period of sponsorship from 3 to 5 years.

4. PRESIDENT'S BUSINESS

4.1 The President, Professor Fabian, outlined the presentation about the outlook for astronomy research given by Professor Mason, CEO of the STFC, at the Astronomy Forum on September 15, summing it up as 'things are bad – but are going to get worse' as the funding council planned for budgetary reductions on top of the shortfall (of possibly £40-60 m) remaining from the last CSR settlement. He also mentioned the problems for physics departments likely to be created by STFC's decision to restrict grants to one year's duration pending the completion of the prioritisation exercise. Professor Fabian was concerned that the UK, which, after the USA, lead the world in the production of highly cited research, would lose its position if uncertainty about future funding continued. Work was proceeding on the compilation of a booklet to demonstrate the impact achieved by UK Ground Based Astronomy, which it was hoped would be completed by the end of 2009. Finally, the President reported on a recent meeting with his counterpart at the Institute of Physics at which it was agreed that the 2 societies should work together to prevent any divisions arising between the astro- and particle- physics communities in what was agreed would be challenging times.

4.2 In discussion, concern was expressed that some leading figures in STFC may believe, and act on the presumption, that the British astronomy community had grown too big. It was observed that the size of STFC's deficit made it impossible to avoid severe reductions in the funding level of programmes and facilities but that short-term savings were easier to make in the grants line. This made it all the more important that there should be a clear science strategy, not least to guide the Grants Panel which will meet in emergency session in February 2010 following the expected conclusion of the prioritisation exercise. It was vital that the correct balance was struck between spending on facilities and on the exploitation of the results they generated not least to give hope to the younger members of the community whose careers depended on fellowships and post doctoral assistantships. Finally, while any public discussion this side of a general election was unwise, it was agreed that it remained a moot point whether the present research council arrangements were optimal.

5. POLICY & PUBLIC ENGAGEMENT

5.1 The Society's submission to the Royal Society's 'Fruits of Curiosity' study were noted.

5.2 The Society's submission to the House of Lords Science and Technology Committee's investigation into 'Research Funding Priorities' was noted.

5.3 Council was invited to email comments to the Policy Officer on the draft submission to the BIS consultation on the funding and management of UK civil space activities.

6. ORGANISATION AND STRUCTURE

6.1 The Treasurer reported on his, and the President's, recent attendance at the IAU General Assembly (GA) in Brazil at which all the proposed resolutions, including that supported at the May Council on astronomy in developing countries, had been adopted. In addition, all the UK nominees for membership had been approved. Finally, he noted that, following the 2012 GA in China, the next Assembly, in 2015, would be in Hawaii. Dr Corbett, the General Secretary of the IAU, informed Council that the structure of the GA would be reviewed (again) in an endeavour to reduce the requirement of delegates attending business meetings to be present for a full 2 weeks. He added that the meeting had been a great success with some 2400 registrants including large numbers of young people

6.2 Professor Edmunds, Chair of the Astronomical Heritage Committee, invited Council to adopt a policy on placing plaques at sites connected with celebrated British astronomers or astronomical events. This was agreed to be a useful way of raising the profile of astronomy in the localities involved but that it would be most expeditious to coordinate the Society's plans with those of the Institute of Physics which already had a similar scheme (and was willing to share its plaque template). The Astronomical Heritage Committee was encouraged to liaise with the IoP's History of Physics Group and to bring perhaps 2 proposals per annum (at an estimated total cost of £1,000) to Council.

6.3 The Executive Secretary tabled a draft letter to the membership calling for nominations for election to Council in 2010. For the first time fellows would be invited to make informal suggestions, in addition to nominations, for the position of President. This was approved with one change viz the deadline for 'suggestions' was advanced to December 11th 2009

6.4 A set of charts was tabled summarising data from an on-line membership questionnaire. Unfortunately, though, the sample was not large nor representative enough to yield significant findings

7. FINANCE

7.1 The Treasurer spoke to the Operations Plan which continued to show the Society standing in good financial health. He noted that, following receipt of expert advice, a claim for some £30,000 in unclaimed Gift Aid would be made. However this, and future claims for the c.£7,000 annually arising from Gift Aid, was contingent upon reducing the proportion spent from contributions on member benefits below the qualifying threshold. This, he informed Council, could be achieved by advising fellows that the use of Wi-Fi internet access in Burlington House should be limited to RAS related activities and by requesting payment for self-service drinks in the Fellows Room. Both of these, reasonable, suggestions were approved.

7.2 The Treasurer spoke to a paper proposing that the Society sponsor a Daphne Jackson Fellowship. He believed that this met the concern of Council that scholarly standards should not be compromised in the selection of either the candidate or the proposed research by incorporating Society involvement in each stage of the process and, crucially, by recognising its right not to support any candidate fellow offered by the Daphne Jackson Trust judged not to meet its requirements. He invited Council to approve a pilot scheme under which the Society would offer to support one fellow for two years at a total cost of some £54,000 (including salary, expenses and indirect costs). So far, he added, just 4 (out of 192) Daphne Jackson fellows had had an astronomical/geophysical interest but it was reasonable to anticipate that RAS participation would stimulate interest in our community resulting in more such

fellows being sponsored by the Trust. Council approved this approach and instructed the Treasurer to conclude an agreement on the above basis with the Daphne Jackson Trust.

7.3 The Executive Secretary summarised the request received from Royal Society which was anxious to share responsibility with appropriate learned societies for adherence, along with the concomitant financial liability, to the International Union of Geodesy & Geophysics (IUGG). This followed similar changes in respect of other international scientific unions driven by the conviction that this encouraged closer UK involvement in them by the relevant subject based learned societies. Since 8 learned societies had an interest in the IUGG the Royal Society proposed to share the costs of adherence among them on a weighted basis to reflect their level of engagement and resources. In return they would have an opportunity to nominate representatives to the Royal Society's UK panel for IUGG. Council agreed that UK membership of IUGG membership brought significant practical benefits to areas of UK science within the remit of the RAS and that the Society should contribute to its costs – on condition of there being a clear agreement with the Royal Society and the other contributing societies on how future adherence would be managed through the UK Panel. Accordingly Council agreed to the request *in principle* subject to some further discussion on the level of contribution proposed and on reaching a satisfactory agreement on the *modus operandi* of the proposed UK Panel for IUGG.

8. OTHER

8.1 Council approved the following candidates for Election to Fellowship listed in the Officers' Reports for July, August and September 2009 and posted on the RAS web site.

Alves	Marta
Barclay	Thomas
Buck	Lucy
Burt	Geoffrey
Elder	John
Forgan	Duncan
Frasi	Sonam
Gilmore	Gerard
Hatton	Daniel
Holt	Ron
Hufton	Derek
Ilee	John
Karick	Arna
Kerss	Tom
Lale	Rebecca
Melandri	Andrea
Murdoch	Naomi
Penny	John
Rees	Bryan
Richards	Brian
Rietbrock	Andreas
Thrastarson	Heidar
Tomney	Eric
Trethewey	David
Tuckley	Christopher

Van Doorselaere	Tom
White	Frank

8.2 The following dates were agreed for Council meetings in 2009/10

2009

OCTOBER 9

DECEMBER 11

2010

FEBRUARY 12

MARCH 12

MAY 14

JULY 23

OCTOBER 8

DECEMBER 10

8.3 Professor Mason (CEO of the STFC) made a short presentation. This was followed by questions from members of Council and his responses to them (*in italics*)

8.3.1

Professor Mason explained that in the present financial and economic situation the overall picture for all UK Research Councils is challenging (though the good side is that it focuses minds). STFC's budget, though, has added difficulties given its in-built inflexibility (long term commitment to facilities, international subscriptions and 5 year rolling grants). Its strategy is to ensure that key strategic capabilities are preserved and that it is well positioned to exploit new post-recession opportunities. 'Weathering the storm' means understanding the imperative of demonstrating to government the IMPACT achieved by STFC funded activities otherwise, notwithstanding the hitherto ring-fencing of the science budget, it will be difficult to argue the case for astronomy (and particle physics) against competing demands on the public purse. 'Impact' can be demonstrated not just by commercial applications arising from research but by the various ways in which the RAS community contributes to the development of the nation's SKILLS and INTELLECTUAL CAPITAL as well as astronomy's INSPIRATIONAL quality (especially for young people who it is important to encourage into STEM subjects at school and beyond). It is unhelpful (and misguided) to set up a dichotomy between pure and applied science research. All STFC funded research is 'fundamental'. Some is closer to application than others, but all of it delivers impact. A key element in STFC's strategy is the Science and Innovation Campuses and the astronomy community should exploit this conduit to the 'market' (using this term in the broadest sense).

8.3.2

- The reduced Fellowship programme is contributing to a serious haemorrhaging of young scholars, its 'seed corn', from the UK community

Agreed – but how do we persuade HMG that this is more serious than unemployment in other sectors especially when the size of the community has doubled in the past decade? Maintaining morale is a bigger problem than the decline in the number of post-docs. Besides, PhDs and PDRAs who find careers outside astronomy in other sectors are a success story demonstrating, as they do, their high level transferable skills; creativity and problem solving, attributes nurtured by a training in astrophysics, are just what the UK PLC needs. Indeed mobility should be encouraged

– and some of those who leave for industry may return to academe. And to minimise the flow of the talent to academic careers in astronomy overseas we have to maximise inward investment in high tech enterprises through the Science and Innovation Campuses. On the specific issue of research fellowships, we can increase their number, but it has to be recognised that this would have to be at the expense of something else.

- The decision to limit grants to a maximum of 1 year will inflict disproportionate damage to Physics Departments

The 1 year limit is temporary and will be lifted when the prioritisation exercise is completed – by the beginning of 2010. It was designed to be helpful since the alternative was a freeze. There is no question but that there will be fewer projects post-prioritisation and that the levels of grants awarded may be more flexible

- What will be the impact on the science budget of a change of government?

Impossible to say. STFC doesn't even know the size of its 2010 budget yet because it depends on imponderables like the exchange rate, but the pressure is likely to be in the tens of millions. More importantly, STFC needs to ensure that its programme is re-structured so that it is sustainable in the future and able to cope with the prevailing economic conditions.

- How can the community help STFC make the best funding case to government?

By demonstrating 'impact' through talks (to influencers and decision makers as well as the public), the media et al and by avoiding the politically damaging assertion that astronomy should be supported, principally, on 'cultural' grounds (which risks it being funded on a similar scale to other cultural activities!). Arguing for support on the grounds that UK astronomy research is second only the USA is less powerful; why support second best? The truth is that UK astronomy is world-class and in some areas world-leading. Similarly, bemoaning the decline in the number of astronomers or physics departments beg the questions 'what is the optimal number?' and 'does it matter if there are say 20% fewer?' And asking for stability in funding is not persuasive – especially from a community that claims to be dynamic. Treasury and BIS officials will be persuaded more by arguments advanced on behalf of astronomy by non-astronomers (especially CEOs whose enterprises have benefited from recruiting astro-qualified staff).

- How reliable are charts circulating in the community which show a marked up-swing in the share of STFC's budget going to ESA?

*Without having previously seen them it's difficult to comment. However there **has** been an increase but this represents re-deployment to STFC of ESA-designated funds from other parts of HMG as well as extra commitments (particularly AURORA). More generally, the cost of contributions to European facilities and programmes has soared in the last year by over £30m as a function of variation in the pound/euro exchange rate. Taken with other international commitments across its remit the total cost to BIS has been in the order of £100m. While STFC is required to meet only the first £3m from its own budget the result has been to strip BIS of any end of year flexibility, flexibility that STFC had hoped to use to smooth out its deficit beyond the current financial year. Of course, the decline in UK 'Net National Income', from*

which national contributions are computed, should lead to a correction in future years.

- STFC spends too little on grants to support UK scientists to exploit the results generated by its investments in facilities

*If anything STFC spends too much on exploitation! It is important to get this balance right to ensure the long-term health of the subject. However, the way peer review works **has** resulted in resources being spread too widely and thinly with inadequate exploitation of HERSCHEL and PLANCK and other high profile projects. STFC **could** build exploitation grants into programmes 'ab initio' but the community will have to buy-in to this switch from reviewing on the basis simply of past achievement. A debate about peer review is urgently needed*

- How important is the work of the review panels to the prioritisation exercise?

Their views will be taken on board; however as decisions are taken at ever higher levels the granularity changes and at the level of Science Board and Council itself it will be the balance between say ground based and other astronomy that will exercise most attention

- Any concluding words?

The community should be positive in making the case for their discipline; 'talk it up' or risk a self-fulfilling prophecy

8.4 The Minutes of the A&G meeting of the 8th May 2009 were corrected, approved and signed.

9. AOB

Members of Council were asked to view the lighting of the engraved window and inform the Executive Secretary of their opinions

Council rose at 1530

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A.C. Fabian
President

11th December 2009