



*Advancing  
Astronomy and  
Geophysics*

## **ROYAL ASTRONOMICAL SOCIETY**

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**MINUTES**  
**COUNCIL MEETING**  
**11<sup>th</sup> OCTOBER 2013**  
**AT 11:00 IN THE COUNCIL ROOM**

### **1. INTRODUCTIONS AND APOLOGIES**

PRESENT: Professor David Southwood, Professor Mike Cruise, Professor Martin Barstow, Professor Ian Crawford, Dr Lyndsay Fletcher, Ms Mandy Bailey, Professor Richard Davis, Mr Charles Barclay, Professor Peter Coles, Dr Andrew Norton, Dr Sheila Peacock, Professor Yvonne Elsworth, Professor Steve Miller, Professor John Brown, Dr Helen Fraser, Dr Simon Mitton, Dr Sarah Matthews and Professor Donald Kurtz.

IN ATTENDANCE: Ms Pamela Mortimer (Executive Secretary) and Dr Robert Massey (Deputy Executive Secretary)

APOLOGIES: Professor Barry Parsons, Dr Geraint Jones and Professor Gillian Foulger.

The President welcomed Professor Peter Coles who was attending Council for the first time and noted that Professor Don Kurtz was joining the meeting from Japan via Skype.

### **2. MINUTES (& MATTERS ARISING)**

2.1 The Minutes of the meeting of 5<sup>th</sup> July 2013 were approved with a minor correction.

It was noted that:

- a summary of the number of attendees at A&G meetings over the last two years had been included in the July minutes.
- the request for Council papers to be presented in a pdf format allowing easy electronic transfer between papers had not been achieved despite best staff efforts; many Councillors had suggestions on how to achieve this.

There was discussion on NAM arrangements including the time of year and locations that NAM is held and the impact on other communities such as MIST and UKSP.

The President directed that the Officers should deliberate on these issues and invited Council to provide thoughts to him and the President elect, Professor Barstow.

### **ACTION: OFFICERS**

It was agreed that communication with MIST and UKSP is essential and that they should be told that the Society is undergoing a period of reflection. **ACTION: EXEC SEC**

The following was also noted:

- comments on NAM made by Council had have been shared with the Portsmouth team, who are making very good progress in planning for NAM 2014.
- a NAM organiser handbook, that sets out process and lessons learnt, should be developed.
- The Treasurer and Executive Secretary plan to visit the NAM planning team in Portsmouth on the 9<sup>th</sup> December.

Invited comment on the RAS participation in the ESPC conference. It was agreed that this had been a success, with many visitors to the stand and had served as a good venue to attract new members; about 60 membership forms were issued. It was agreed that the Society should participate again when the meeting was in UK. He applauded the work of Professor Steve Miller and other ESPC conference organisers who had tried many innovative approaches to conference organisation (such as the reception in the House of Commons, obtaining a level of sponsorship to subsidise student attendance at the social event and holding an industry day) that the Society and others could learn from.

## **3. PRESIDENT'S BUSINESS**

### **3.1 Update: Meeting with MPs**

The President advised that he hopes to meet with Liam Byrne (new Labour science spokesperson) in the next month and also if the opportunity arises to meet again with Julian Huppert.

The President and members of the Executive had attended a reception in Parliament hosted by STFC presenting their 'Seeing the Universe in all its Light' road show. The President had fruitful discussions with David Willets, Andrew Miller, Jim Dowd and other Science and Technology Committee members. The President thanked the Deputy Executive Secretary for ensuring that the Impact of Astronomy booklet was well promoted to this group including Andrew Miller MP promoting it to reception attendees during his speech.

### **3.2 Engagement with the AAS and plan to approach AGU**

The President explained that following the policy of enhanced engagement between the RAS and the AAS, agreed by Council last year that the Society will host a drinks party at the AAS meeting in Washington in January 2014. It was not felt that this approach would be as successful with the AGU, as the meeting is very much larger. The President and Executive Secretary will arrange to meet with the Executive Director of the AGU, at their Headquarters in Washington, whilst attending the AAS meeting, in January 2014 and will discuss potential cooperative activities.

### **3.3 Meeting with Rosaly Lopes, Chair of the AAS Division of Planetary Science**

It was noted that Professor Ian Crawford had recently met with Rosaly Lopes, Chair of the AAS Division of Planetary Science and that the President has arranged to meet with her when he visits the Jet Propulsion Laboratory, Pasadena in November.

### **3.4 European matters: speech to German Astronomical Society**

The President had attended the 150 year anniversary of the German Astronomical Society (Astronomische Gesellschaft) receiving its formal charter. He had made a well-received speech that (at the request for the president of the DAG) had addressed how best to manage European matters within the astronomical community. The Germans are supportive of the position held by the Society that a federation of national societies is the best way forward to support European deliberations on astronomy. The President had already advised ESA and ESO that they are also seeking a more formalised approach.

Following discussion on this and how the Society manages Europe through its committee structure, it was agreed that Officers should consider this further and present a proposal to Council.

**ACTION: OFFICERS**

### **3.5 Sky at Night**

The President advised that he and Bill Leatherbarrow, the President of the BAA, had agreed a joint BAA/RAS letter on the benefits of a programme such as the Sky at Night that had been sent to Lord Hall, the Director General of the BBC.

It was noted that the Society had emailed Fellows the link to the Open University led petition to save the 'Sky at Night' programme.

Related to the discussion on the future of the Sky at Night, The President expressed the formal thanks of the Society to the National Space Centre and the organising Committee for arranging the very successful 'Patrick at Night' event.

## **4. TREASURER'S BUSINESS**

### **4.1 The RAS Defined Benefits Pension Scheme: Revaluation Report**

The Treasurer reminded Council:

- that the RAS has two pension schemes, one for staff who joined before 2001 that provides defined benefits ( 1/60 of final salary for each year worked ) and a defined contribution scheme for staff joining after that date.
- The defined benefit scheme has now only one active member whose normal retirement date is 2024 and three deferred members.
- Pension schemes are required to be re-valued every three years by means of a formal process involving actuaries reporting to the Pension Regulator.

- The last review of the RAS Pension Scheme was carried out on 1<sup>st</sup> January 2012 and a similar process is underway with a valuation date of 1<sup>st</sup> January 2013. The report has to be submitted to the Pension Regulator by 31<sup>st</sup> March 2014.
- The 2010 revaluation showed a deficit that the Society took measures to address.

The Treasurer advised that the scheme is now shown to be in surplus by about £180K. It was noted that an extraordinary meeting of the Finance Committee had been held on August 30<sup>th</sup> to review the impact on the Society of the preliminary revaluation results. It was concluded that the Pension Scheme does not present a material risk to the Society's financial position and future expenditure decisions do not need to consider the fund as a serious risk factor.

It was noted that The Trustees of the Pension scheme have agreed upon the level of employer's contribution to be made for the next three years until the next evaluation in 2016; fifteen percent of the staff salary will be put in a designated RAS fund that will be invested as part of the Societies investment portfolios. It was noted that as the Society has to formally declare to the Charities Commission that it will stand by its pension obligations (regardless of other callings on the budget) that this approach does not present a risk of non-payment for the individual.

#### **4.2 The 2013 grants Round**

Council were reminded that the Society runs two grants rounds in the year with applications being assessed by a panel comprising the Treasurer and all three Secretaries and were presented with a summary on grant expenditure for 2013.

It was noted that there has been an increased pressure on the grants round due to a number of factors:

- The general reduction in funds at Universities
- Overall economic hardship
- The withdrawal of the Nuffield Foundation from grant funding
- Changes to the grant provision by STFC

Grants spending has now increased to over £100K. Council noted this increase and agreed that a hard ceiling should not be imposed, nor increased paperwork or scrutiny required. The Treasurer should continue to report regularly on the status of grant funding.

Council noted that the grants panel is considering a new format to the grant application documents, designed with the intention of making the various categories of grants (Summer Bursaries, Travel Grants, Tomkins grants, etc.) clearer to the applicant.

### 4.3 NAM 2013 Final Accounts

Council noted that the final accounts for NAM 2013 had been signed off with a surplus (of £14.7k to be retained by St. Andrews.) An attendance of 530 (more than had been originally estimated) creating the surplus.

### 4.4 Treasurer's Discretion

Council noted the Treasurer has made a number of decisions within the level of his delegated discretion. These include:

- The RAS Poster Prize of £50
- BGA Image Competition Prize: One Annual RAS Membership for both the winner and Runner-up

### 4.5 RAS Financial Reporting

The Treasurer presented a proposal for improved financial reporting for Council. It was agreed that Council would be advised of any meaningful change occurring in the following areas between Council Meetings:

- The level of the Society's reserves held by our Investment Manager
- The Society's cash holdings at the bank
- The Society's Heritage Assets
- The nature of the Society's lease of Burlington House
- Any debt burden that the Society carries, and
- The portfolio of legal agreements binding the Society

The following simplified format will be used:

RAS Financial and Legal Status	Level of Materiality	Report for October 2013
Transfers in and out of Reserves	£50k	No change
Unplanned changes in Cash holdings	£20k	No change
Heritage Assets	One heritage item	No change
Lease	Any change	No change
Debts	£5k	No change
Legal Agreements	Any change	No change

Dr. Sheila Peacock asked that substantial changes in the level of insurance cover should also be included. This was agreed.

The detailed Operating Plan with all the financial estimates and updated spend figures will be presented to Council at several points in the year in addition to the regular Officer's Report in this new format.

It was noted that in the period between papers being sent to Council and the meeting that the Reserves has increased by £75K as a result of a donation by Meg Weston Smith to provide travel grants in honour of her father, EA Milne who was elected a Fellow to the Royal Astronomical Society in 1921, President 1943-1945, and awarded its Gold Medal in 1935.

#### **4.6 Burlington House Lease**

Council noted that the Treasurer and Executive Secretary had recently attended a meeting of Courtyard secretaries on the Burlington House lease, where it was agreed that all the Societies would seek to extend their current lease arrangements, rather than try to negotiate new terms, but that more thought would be given to this issue after the lease extension is secured.

#### **4.7 Staff Salary Review**

The Executive Secretary and Deputy Executive Secretary were not present for this discussion under this item.

Over the summer period, the Treasurer had carried out a comparability survey of staff salaries in order to report to Council whether the levels of remuneration were appropriate for the duties involved, based on similar posts advertised on the recruitment market. Almost all the posts compared rather precisely with the market rate for similar jobs based in London and therefore did not need any realignment. Council accepted the survey findings, confirmed that all posts will be uplifted by the RPI index until the next salary review and agreed that all posts will be remunerated at levels that reflect the skills required and job weighting of the duties involved.

#### **4.8 External Funding Proposals**

Council considered proposals from the following bodies for funding for out of town meetings:

- COSPAR meeting
- Fermor meeting on Comparative Planetology
- History of Seismology in the UK meeting request from Aftab Khan
- General Relativity meeting request from Professor Sathyaprakash et al

and financial support for a Review of Geophysics Education in the UK request from Aftab Khan

Council agreed to fund the first four proposals (listed above) at £3K (£2K to fund speakers/£1K towards venue hire etc.)

There was significant discussion on the proposal to support the Review of Geophysics Education in the UK, (a grant application for £9800 had been received.)

It was agreed that the proposer, Professor Aftab Khan, should be asked to provide further information on this proposal, (particularly in regards to why the recommendations of the previous report were not implemented) to the Education Committee that would consider further. The Society should approach Lord Browne, who had written the preface of the earliest report and who remained close to the geophysics industry, to seek his advice on what could be most effective in today's circumstances.

It was agreed that if the Society were to support this initiative that it should provide the standard £3K level of support.

## **5. ORGANISATION AND STRUCTURE**

### **5.1 RAS Corporate Governance, Staff Terms and Conditions of Service and Structure**

Council noted the Corporate Governance arrangements covering Health and Safety, first aid and fire training, staff management procedures, Executive (and other) reporting to Council and a summary of the improvements to the electronic infrastructure over the last year.

It was noted that the following will be undertaken:

- Annual reporting to Council on RAS Governance systems will be continued.
- Changes (agreed under agenda item 4) will be made to provide a simplified report on the financial and legal status of the society.
- The Accountant will review the existing financial management processes with a view to modernising and improvement.
- The Finance Committee will review the format of and update the RAS risk register for the approval of Council in May 2014.
- The Treasurer, Executive Secretary and Accountant will work with the external auditors to produce a more concise and user friendly version of the RAS Annual report.

### **Disabled access to Burlington House**

It was noted that after considering many and testing a few options (various ramps and elevation systems) the best fit for the RAS is a Stairmaster at a cost of £6K including training for 4-5 staff members. Disabled Fellows were involved and are content with this solution. The equipment has been ordered and will be in place by late October 2013. Council were grateful to Professor Colin Pillinger for all his advice and assistance in trying out potential solutions to address disabled access to Burlington House.

It was agreed that consideration should be given to changing the rope handrail to a metal handrail on the staircase leading to the basement and alarms positioned on each floor to

enable disabled visitors to tell others in the building if they require the Stairmaster or other assistance.

## **5.2 Decision paper: Strategic Planning 2013 to 2020**

Council had been provided with an options paper for expenditure on new initiatives identified at the Strategic Planning meeting in June 2013. Supporting papers had been provided on the following :

- a) Education and outreach proposals
- b) Diversity Ambassadors and school engagement project
- c) A & G website
- d) International Committee proposals
- e) Job description for Education, outreach and diversity officer
- f) Managing IT matters in Burlington House
- g) Astonishing Astronomy and Glorious Geophysics

The Treasurer explained that the financial options presented were based on the Operations plan marched forward six years. It was noted that the figures for the potential new work streams were estimates and that a line for income generation had been included, this is an aspiration; the Society will seek to develop revenue streams from various grants awarding bodies, EU, Government, etc.

It was noted that if the Society were to fund all the proposals, there would be an overspend of £1.2M. As such, the President asked Council to prioritise expenditure on the various work streams and consider the financial risk (if any) that they were prepared to take. It was noted that many of the options were scalable.

Council deliberated on the merits of the options provided and agreed the following:

- The additional full time Education, Outreach and Diversity Officer post was agreed.
- One Million Pound should be taken from the RAS Reserves to fund ‘ Astonishing Astronomy and Glorious Geophysics’ , a multifaceted collection of national outreach and education projects to be conducted over the period 2014 to 2020 in celebration of the Society’s 200 year anniversary.
- A third RAS Fellowship should not be funded.
- A&G, a website should be developed.
- The provision of funding for a Daphne Jackson Fellowship on a rolling basis was agreed.
- Diversity ambassador project to be supported (links should be made to work on-going by the South East Physics network)
- The Education Committee should be given a discrete funding line for education projects.
- On the proposals for increased international engagement, there was support for short term exchange visits and the streaming of meetings (with ~ 20K for set up costs) however it was agreed that the overseas membership cost should not be reduced.
- Lectures at Astronomical and Geophysics Societies overseas should be held.



- Public lectures should be held outside of London.
- RAS Fellows should be encouraged to present at amateur astronomical society meetings.
- A fund for the 2020 celebrations should be established.

<b>Budget</b>						
Big Bang Project ( Taken from reserves )	1,000,000					
OA Risk Management	221,000	137,000	117,000	97,000	89,000	41,000
Daphne Jackson Fellowship	0	27,000	27,000	0	27,000	27,000
Development of A&G	35,000	20,000	20,000	20,000	20,000	20,000
Outreach, Education and Diversity Post	50,000	50,000	50,000	50,000	50,000	50,000
Diversity Ambassador Project	10,000	10,000	10,000	10,000	10,000	10,000
Education Projects	8,000	8,000	8,000	8,000	8,000	8,000
Information Manager Post	25,000	25,000	25,000	25,000	25,000	25,000
Increased International Engagement	5,000	5,000	5,000	5,000	5,000	5,000
Public Lectures Outside London	3,000	3,000	3,000	3,000	3,000	3,000
Overseas Lectures @ Astro/Geo Socs	9,000	9,000	9,000	9,000	9,000	9,000
Int Comm Projects	20,000	5,000	5,000	5,000	5,000	5,000
Interaction with amateurs	3,000	3,000	3,000	3,000	3,000	3,000
Commemorative Funds	5,000	5,000	5,000	5,000	5,000	5,000

In addition Council noted that the Executive have taken forward work to implement some of the quick win (and less expensive) proposals made at the strategic planning meeting, including:

- A RAS diversity membership questionnaire has been drafted and will be agreed by the Membership Committee and then Council, expected cost ~ < £500.
- A request for information from the Membership on their subdivisions within A & G will be made as part of the membership renewals process that happens in November 2013.
- A call for volunteer Subject Matter Experts willing to talk to the media on their specific areas was issued in August 2013 with the view to establishing a RAS Expert Media database.
- Revamp of the RAS Points of Contacts arrangements; a revised job description will be issued in November with a view to encouraging Universities to provide the best person for the job.

### 5.3 Outlook: RAS Library

Council noted the significant progress made over the past year in improving library services and in clearing the annexe and wished to formally express their thanks to Jenny Higham, the RAS librarian and archivist.

## **5.4 Progress report: improvements to the Electronic Infrastructure**

Due to lack of time, there was minimal discussion under this item. It was noted that the installation of the new server had been delayed until late October and that the IT working group was planning to meet on the 23<sup>rd</sup> October to discuss options for streaming RAS lectures, amongst other IT matters.

## **5.5 CDAG Committee Membership**

Council approved the appointment of Dr Marta Perez-Gussinye to the Committee on Diversity in Astronomy and Geophysics and thanked Dr. Sheila Peacock for her efforts in arranging this appointment. Dr Perez-Gussinye is a lecturer in Geodynamics at Royal Holloway University, London.

It was noted that the membership of the committee will be:

Dr S Russell (2014) - Chair  
Ms M Bailey (2016)  
Professor V Dhillon (2014)  
Dr A Norton (2014)  
Dr Marta Perez-Gussinye (2016)

Ex Officio:

Dr L Fletcher (Secretary)  
Dr R Massey (Deputy Exec Sec)

## **6. POLICY AND PUBLIC ENGAGEMENT**

### **6.1 RAS Responses to Consultations**

Draft RAS responses to the HEFCE Consultation on Open Access.

They agreed that more substantive comments were required to provide a response to the full range of questions posed.

Professor Peter Coles recorded a conflict of interest as he is involved with the management of his institutional repository. An issue raised in the report is the need to support institutional repositories; it was felt that this may not be the best solution for many astronomers as they routinely use ArXiv a separate subject specific repository.

It was noted that the HEFCE paper was written under the assumption that the REF process will remain the same in the coming years.

Council were asked to provide further comment to the Deputy Executive Secretary by the deadline of 23 October, to allow time to collate them for the consultation deadline of 30 October.

[POST COUNCIL UPDATE:

The final submission included the following points and can be seen at [http://www.ras.org.uk/images/stories/ras\\_pdfs/HEFCE%20Consultation%202013%20final%20response.pdf](http://www.ras.org.uk/images/stories/ras_pdfs/HEFCE%20Consultation%202013%20final%20response.pdf)

- The support from the astronomy and geophysics communities for Open Access publishing without embargoes (the so-called ‘Green’ model)
- The need for HEFCE to recognise the importance of subject-based repositories for scientific papers
- That outputs for future REF exercises should be Open Access by default, with exceptions considered on a case by case basis. ]

Council noted the following RAS responses that had been circulated to Council over the summer:

- Women in STEM, [http://www.ras.org.uk/images/stories/ras\\_pdfs/Women%20in%20STEM%20inquiry%20final.pdf](http://www.ras.org.uk/images/stories/ras_pdfs/Women%20in%20STEM%20inquiry%20final.pdf) [link will be live when report is published]
- EU UK Balance of Competences , [http://www.ras.org.uk/images/stories/ras\\_pdfs/EU%20UK%20Balance%20of%20Competences%20final.pdf](http://www.ras.org.uk/images/stories/ras_pdfs/EU%20UK%20Balance%20of%20Competences%20final.pdf)
- NERC centres of ownerships, [http://www.ras.org.uk/images/stories/ras\\_pdfs/NERC%20centres%20ownership%20consultation%20response%20final.pdf](http://www.ras.org.uk/images/stories/ras_pdfs/NERC%20centres%20ownership%20consultation%20response%20final.pdf)

The BIS select committee has published its report on its inquiry into Open Access: <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmbis/99/99.pdf>

Council thanked Dr. Robert Massey, the Deputy Executive Secretary, for all his hard work in collating and drafting the responses.

## **6.2 NAM 2013, review of media coverage**

Council noted the success of the media coverage for NAM 2013.

## **6.3 International matters: American Astronomical Society**

This item had been covered under President Business.

## **6.4 Impact of Geophysics publication**

The Deputy Exec Secretary advised that progress was being made and a mock-up of the front page was available for Council to preview.

# **7. PUBLICATIONS**

## **7.1 New GJI Editor**

Council noted that Dr Rene-Edouard Plessix joined as a new GJI editor on 1st September 2013. He is the principal researcher at Shell Global Solutions Intl and Associate Professor at

Institut Physique du Globe de Paris. His research interests are in geophysical inverse theory and crustal imaging from active seismic and electromagnetic data.

## **8. OTHER**

### **8.1 Update on Awards 2014**

Council noted the update on the Awards process 2014 and agreed that:

- if the awards Committee receive nominations for Council members during their time serving on Council that consideration of those nominations are held over until the Council member finishes their term of service
- the Awards Committees should consider nominations for National Honours in the awards process.
- the Awards Committees should draft concise and readable citations for presentation at NAM

### **ACTION : AWARDS COMMITTEES**

[POST COUNCIL UPDATE:

A letter was sent to Award Committee Chairs on 18<sup>th</sup> November, setting out the above changes and the deliberations required on the Michael Penston Prize and Runcorn Prize, see agenda item 9.1]

Council noted the membership of the Awards Committees 2014 consists of:

#### **'A' Awards Committee**

(Astronomy excluding planetary science)

Chair: Dr Simon Mitton (Vice-President)

Ms Mandy Bailey (Secretary)

Prof. Paul Murdin

Dr Helen Fraser

Prof. Katherine Blundell

Dr Sarah Bridle

Prof. Martin Ward

Prof. George Efstathiou

#### **'G' Awards Committee**

(Geophysics and planetary science)

Chair: Prof. Barry Parsons (Vice-President)

Dr Lyndsay Fletcher (Secretary)

Prof. Andrew Fazakerley

Prof. Greg Houseman

Prof. Steve Miller

Dr Silvia Dalla

Dr Katherine Joy

Dr Ana Ferreira

Dr Mervyn Freeman

## **8.2 RAS Research Fellowships 2014**

Council noted that one Norman Lockyer Fellowship and one RAS Research Fellowship will be awarded in 2014. They also noted the following paperwork (the call for applications, plan for 2014 Fellowships, the status report on previously awarded Fellowships and the interim report from Dr Nick Wright) and the membership of the Awards Committee.

The Research Fellowship Awards Committee will be chaired by the President Elect, Professor Martin Barstow supported by:

Prof Richard Davis, Manchester, extra-galactic/cosmology  
Dr Andrew Norton, Open University, stars & exoplanets  
Prof Hilary Downes, Birkbeck/UCL, solid earth and meteorites  
Dr Leigh Fletcher, Oxford, planetary  
Prof Clare Parnell, St Andrews, solar & plasmas

The President advised Council of a decision he had taken over the summer concerning the interpretation of the phrase 'Ordinarily Resident' as used in the Fellowship application paperwork. The following was included in the Conditions of Awards section of the calling notice:

'Applicants may be of any nationality; however, employment will be through the host institution. In this respect, the applicant is asked to indicate their residency status with respect to the UK in order that, if necessary, it can be confirmed that they will be able to work at the institution concerned'.

## **8.3 Officers Reports**

Council agreed that in the future the Officers report would include the financial reports (as agreed under agenda item 4) together with information on Fellows who have died, resigned, been reinstated and are applying for Fellowship and a summary of grants made.

## **9. AOB**

### **9.1 Michael Penston Thesis Prize**

The Executive Secretary advised that Margaret Penston is content with the proposal that more than one prize is awarded but would not want the value of the top prize to fall below £1K. Council were very grateful for the additional donations that Mrs Penston and her son plan to make to the fund. It was agreed that the Awards Committees (A&G) should consider this further and make a recommendation for an alternative prize structure for both the Michael Penston Prize and the Runcorn Prize. **ACTION : AWARDS COMMITTEES**

### **9.2 Education matters**

Charles Barclay advised that Nigel Marshal, the Chief /Principal Examiner for GCSE Astronomy has stepped down and a replacement is being sought and that the Education Committee had agreed the top 10 pupils to be awarded with a RAS Certificate.

### **9.3 Membership of the Patrick Moore Medal Awards group**

Council noted that Mandy Bailey has succeeded Clive Tadhunter on the Patrick Moore medal awards panel.

Council rose at 1540

.....  
Professor D.J. Southwood

13<sup>th</sup> December 2013