

# Bulletin

of the Rutherford Appleton Laboratory

24 Oct 1983 No.16

## New Secretary to SERC

The new Secretary to SERC from 1 November will be Dr J A Catterall, formerly Deputy Chief Scientist and Head of Energy Technology Division, Department of Energy.

Ashley Catterall was educated at Imperial College, where he studied Metallurgy and Physics, and joined the National Physical Laboratory in 1952, where he carried out research into alloy theory, solid state physics and superconductivity. In 1974 he moved to the Department of Industry headquarters where, in 1977 he became the Under Secretary heading the Research and Technology Policy Division where his responsibilities included management of six of the DoI Research Requirements Boards, research policy and long-term strategy.

At the Department of Energy, he has been responsible for the research budget which covers programmes on alternative energy sources, offshore energy technology and energy conservation. The budget also covers the work of the Energy Technology Support Unit and the Marine Technology Support Unit at Harwell. He has, in addition, been concerned with research strategy, with the provision of policy advice to other parts of the Department, and with various other matters including relations with nationalised energy industries' research and development and with the Research Councils.

Dr Catterall is a Fellow of the Institution of Metallurgists, a Fellow of the Institute of Physics and a Chartered Engineer. He is married, has two sons, and lives near Woking.



Dr Ashley Catterall.

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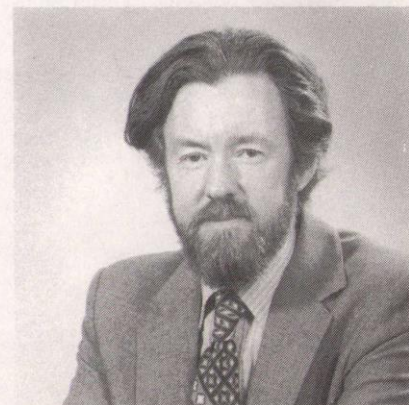
### And New Responsibilities for Directors

Other changes have occurred at Central Office. Dr Harry Atkinson, with the title Director Science, is now responsible for the Science Board, Astronomy, Space and Radio Board and the Nuclear Physics Board. He is also responsible for the International Section.

Mr Tony Egginton as Director Engineering is responsible for the Engineering Board and the Engineering Directorates.



Mr Tony Egginton.



Dr Harry Atkinson

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# INTERNAL Events

## RAL LECTURE LECTURE THEATRE - 1515 hrs

- 3 Nov Dr P E Clegg  
'Far Infrared Astronomy'

## ASTROPHYSICS SEMINARS R61 CONF ROOM - 1400 hrs

- 2 Nov Dr Jocelyn Burnell/ROE  
16 Nov Dr Duncan Bryant/RAL  
'The Plasma Environment  
of Comet Halley'

## COMPUTING SEMINARS ATLAS COLLOQUIUM - 3.15 p.m.

- 15 Nov Chris Lons/ITV  
'Computer Graphics and TV  
News'

## NIMROD LECTURES R16 CONF ROOM - 1400 hrs

- 7 Nov L E Price/Argonne  
'Recent Results from HRS at  
PEP'  
14 Nov Julius Wess/Karlsruhe  
'Nonlinear Realisations of  
Supersymmetry'

## HEP SEMINARS R61 CONF ROOM - 1100 hrs

- 2 Nov Dr A Petersen/Hamburg  
'Experimental Evidence for  
Differences Between Quark and  
Gluon Jets'  
9 Nov Dr C T Sachrajda/Southampton  
'Baryon Wave Functions and  
Nucleon Decay'  
16 Nov Dr R Marshall/RAL  
'Flavour Distillation and Its  
Applications'

## CONDENSED MATTER SEMINARS R3 CONF ROOM - 1330 hrs

- 1 Nov P Webster/Salford  
'Heusler Alloys'  
8 Nov R Stewart/Reading  
'Small Angle Neutron  
Scattering from Precipitates  
in Materials'  
15 Nov WIF David/RAL  
'Structural Phase Transition  
in Ferroic Materials'

## SAFETY FILM LECTURE THEATRE - 1230, 1300 and 1330 hrs

- 15 Nov 'I Can't See'

# EXTERNAL Events

## ELEM PART PHYS SEMINARS NPD - OXFORD - 1430 hrs

- 27 Oct Dr Neil Tanner /Oxford  
'Proposed Experiments to  
Test CPT and/or time Reversal  
Invariance with 5 MeV  
Antiprotons'  
3 Nov Dr A Petersen/Hamburg  
'Experimental Evidence for  
Differences between Quark  
Jets and Gluon Jets'  
10 Nov Dr A Bodek/Rochester NY  
'Deep Inelastic Scattering  
of Electrons from Nuclei'

## PHYSICS COLLOQUIA CLARENDON LAB - OXFORD - 1515 hrs

- 28 Oct Dr N E Booth/Oxford  
'Tackling the Solar Neutrino  
Problem'  
4 Nov Prof A Aspect/Orsay  
'Experimental Tests of Bell's  
Inequalities'  
11 Nov Prof J M Irvine/Manchester  
'The Constancy of Physics and  
Prehistoric Reactors'

## SHEP SEMINARS SOUTHAMPTON - 1430 hrs

- 28 Oct C. Isham/Imperial  
'Quantum Geometry'  
4 Nov J J R Aitchison/Oxford  
'Gauge Dependence of the  
Effective Potential'  
11 Nov J C Taylor /DAMTP  
'Soft Gluons and Fast  
Quarks'

## PHYSICS IN FOUR DIMENSIONS DAMTP - CAMBRIDGE - 1615 hrs

- 27 Oct R R Horgan  
'Finite Temperature on the  
Lattice'  
10 Nov A Donnachie/ Manchester  
'Production of Strange and  
Charmed Baryons'

## HEP SEMINARS CAVENDISH LAB - CAMBRIDGE - 1500 hrs

- 2 Nov Dr J C Thompson/RAL  
9 Nov Dr B R Webber/Cambridge  
'Jet Fragmentation in QCD'  
16 Nov Dr P M Watkins/Birmingham  
'Search for Heavy Flavour  
in the UAL Experiment at  
the pp Collider'

## HEP SEMINARS DAMTP - CAMBRIDGE - 1500 hrs

- 28 Oct P Orland/Imperial  
'Expansions around Monopole  
Configurations in Yang-Mills  
Theories.'  
4 Nov D J Wallace/Edinburgh  
'Prospects in Lattice Gauge  
Theories'  
11 Nov M Daniel/RAL  
'Chiral Lagrangians and  
Proton Decay'

## THEO PHYS DIV SEMINARS TPD - HARWELL - 1400 hrs

- 1 Nov Dr C F Clement/Harwell  
'Upside-down Convection'

## PART PHYS DISC GP MEETINGS BIRMINGHAM - 1615 hrs

- 28 Oct Dr R Roberts/RAL  
'Why are Structure Functions  
Different in Iron and  
Deuterium'  
4 Nov Dr G Lafferty/Manchester  
'Diffraction Photoproduction  
of Multi-meson Final States'  
11 Nov Dr R Cashmore/Oxford  
'Recent Results from PETRA'

## PHYSICS COLLOQUIA H H WILLS LAB - BRISTOL - 1700 hrs

- 31 Oct Dr R S Stinchcombe/Oxford  
'Sealing and Criticality'  
7 Nov Prof I L Rasmussen/Danish  
Space Research Institution,  
Copenhagen  
'Origin of Cosmic Rays'

## ELEM PART PHYS SEMINARS NPL - OXFORD - 1430 hrs

- 28 Oct Dr S Chadha/RAL  
'The Use of Chiral  
Lagrangians for Proton  
Decay'  
4 Nov Dr B Lynn/Oxford  
'Parity Violations in Atoms'

## THEO PHYS SEMINARS QMC - LONDON - 1415 hrs

- 3 Nov Prof PIP Kalmus/QMC  
'Discovery of the W and Z  
Particles'  
10 Nov Dr C H Llewellyn-Smith/Oxford  
'The Status of Electro-weak  
Theory'



## Third Prize - RAL

Two young German scientists Horst Puschmann and Christoph Holzhey of Wernher-von-Braun Gymnasium, Friedburg were this year's 3rd Prize Winners of the Federal German Republic's 'Young Scientist of the Year' Competition.

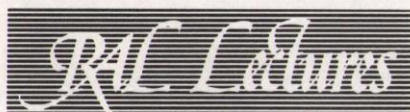
The project they put forward for the competition was a study of the flight of a boomerang. To do this they equipped a boomerang with a light source and photographed its flight after dark. They reconstructed the flight path by using two cameras as part of a triangulation system and further, by using a small computer, were able to establish how the flight path varied under different conditions.

The actual 3rd prize was 1000 Deutschmarks (about £250) but the panel of judges considered that the project had special merit and gave Horst and Christoph the extra prize of a visit to the UK to see JET, Harwell, the Culham Laboratory and RAL. Whilst at RAL they were able to see round the IRAS control room, the Laser laboratory and SNS.



Horst Puschmann and Christoph Holzhey, prize winners in the German 'Young Scientists of the Year' Competition, visiting the IRAS control room.

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The next lecture in this series will be held on Thursday 3 November at 3.15pm in the R22 Lecture Theatre

FAR-INFRARED ASTRONOMY"

by

Dr P E Clegg

Queen Mary College

The Earth's atmosphere is almost completely opaque between wavelengths of about 20 micrometers and 1 millimetre and yet information about many interesting and exciting astrophysical processes is contained in this region of the spectrum. Astronomers have therefore laboured to peer through the few murky spectral "windows" that exist to extract what data they may. Observers on high mountains, in aeroplanes and using telescopes on balloons take advantage of the thinner atmosphere at high altitudes and recently the IRAS satellite has broken free completely from telluric constraints.

The data gathered in this way have revealed much about how stars are formed from cool clouds of dust and gas in our own and nearby galaxies. They have shown extraordinary activity in some galaxies superficially like our own and they have led us nearer to the power source of the still rather mysterious quasars.

## Safety Film

This film will be shown at lunchtime Tuesday 15 November at 1230, 1300 and 1330 hrs.

Entitled "I Can't See", it is the first safety film of the Winter season and is a dramatic account of an injury in a chemical works caused by failure to wear the eye protection provided.

Its message relates to all such forms of protection against hazards in the workplace.

## Film Badge Notice

It is Period 11, Colour Strip RED Please check that you are wearing the correct dosimeter and that all old ones are returned.

NEXT FILM ISSUE  
Monday 7 November.

## Missing

The following inventory item is missing from Lab 10, R2.

AVOMeter Model 8 Ser no 68830-C-1257  
Would anyone with information on this item please contact Mike Armstrong  
Ext 5294/5690.

News of EFC 12" desk fan Serial No. 037783 RAL No.012493 is required by N J Myer. Please contact him on Ext. 5115.

## IPCS AGM

The Annual General Meeting of the IPCS (RAL Section) will take place in the R22 Lecture Theatre at 12.45pm on 27 October 1983.  
All members are urged to attend.

## '100' Club

The winner of the club's August draw was Mrs A Donkin R25 who received a £25 prize.

Mr P Coleman R20 won the £125 September draw prize with Mr J Rice, R18 receiving the £25 award.

## Sales to Employees

Sales of scrap metal and plastics will take place at the R40 Scrap compound from 12 - 1230 pm on 4 and 18 November.

## Thanks

Mr Cyril Richardson wishes to thank all the people who contributed to his retirement gift and wishes everybody all the best for the future.



## Energy Losses

### Martin

At an informal gathering (more of a coffee morning, actually) in his office on Friday 7 October Martin Wilson, erstwhile Head of ERSU, made his farewells to friends and colleagues. After twenty years at RAL, Martin is moving on to a new career with Oxford Instruments.

Gifts of a decanter and brief-case were presented on behalf of all present by Gordon Walker (Head of Instrumentation Division) who thanked Martin, for his work, and his friendship and wished him well for the future. This was not really goodbye but au revoir as Martin would undoubtedly be in and out of the Lab. continuing the collaboration that had for a long while existed between RAL and Oxford Instruments.

Martin thanked everyone for the gifts. "I'll put the better home-brew in this one", he remarked of the decanter and he was delighted with the brief-case having been uneasy for a while that his old one and its handle were about to part company.

Reminiscing on his days at RAL, he traced his career, from his arrival in a blizzard, through his time with Tony Egginton on pulsed high fields experiments that had the inmates of



Martin admires his decanter.

R25 in a permanent state of shell shock, his fruitful partnership with Peter Smith in super-conductivity to the setting up of the Energy Research Support Unit by Norman Lipman and Brian Jones of which he eventually became head.

"It has been great to work with you all, Rutherford is a splendid place - I came for 2 years and stayed for twenty."

### Brian

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At this point, the scene changed and Brian Jones found himself on the receiving end of a presentation by Martin. As new leader of Scientific Administration Group, Brian was given a sighting compass.

"The paths of administration are tortuous" said Martin "this is to help you find your way. Thank you for the contribution you have made, we shall miss a valuable colleague."

## R18 Workshop v Stores

On 5 October at 12.30 a football match took place between two of RAL's lesser known teams from the Stores Section and R18 Mechanical/Electrical Workshops.

With a less than average crowd in attendance the game started on time with nobody giving much away. R18 were first to show with M Bennett and A Saxby probing into the Stores defence where L Harris and P Wharton stood firm denying them any space or time.

The Stores then took control despite having a strong wind against them and frequently peppered the R18 goal; M Bond almost lifting off the cross-bar with a tremendous shot. R18 came back but their strike force was stopped in mid-field by the experience of T Ward and ability of J Denly. Half time arrived with the Stores leading by 1 goal to nil, scored by a mix up in the R18 defence by top goal scorer D Vokins.

In the second half the Stores started with the wind behind them, but it was R18 who scored to level it up at 1 goal each. A shot by A Harding struck the Stores goal-post but M Bennett was on hand to strike it home. After the equaliser things were very close with much of the play taking place mid-field. Then, midway through the second half, some good build-up work resulted in R Owen slotting the ball home after it had run loose, giving the Stores a 2-1 advantage. R18 fought hard for the equaliser but despite the loss of left back L Harris with ligament trouble the Stores held on to win a memorable, closely fought match.

A Napper

## Art & Craft Exhibition

### A DATE FOR YOUR DIARY

The 1983 Art & Craft Exhibition is to be held on 15, 16 and 17 November from 12 noon - 2 pm each day. It will also be open on 16 November from 5.15 pm to 8 pm.

It is hoped that previous exhibitors and also many new ones, will be willing to show their work on these days.

Entry forms are available from:

|              |     |           |
|--------------|-----|-----------|
| Myra Gilbert | R1  | Ext: 6143 |
| Jenny Coates | R12 | Ext: 5430 |

(Closing Date for entry forms is 1 November)

The more participants there are, the better the exhibition. Please help to make it really interesting.

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Deadline for insertions:

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