# Rutherford Appleton Laboratory

# Bulletin

Editor Esther Peacock

September 1990

# Open Days 1990

After many months of preparation and planning, this year's RAL Open Days were a sparkling success, and many of our visitors have written to say how much they enjoyed their visit.

More than 4500 people were entertained over a sweltering five days in July, and from the comments we have received, everyone was extremely impressed, not only by the research that they saw, but also by the enthusiasm and commitment of the RAL staff and the courteous and helpful way in which they dealt with visitors' questions.

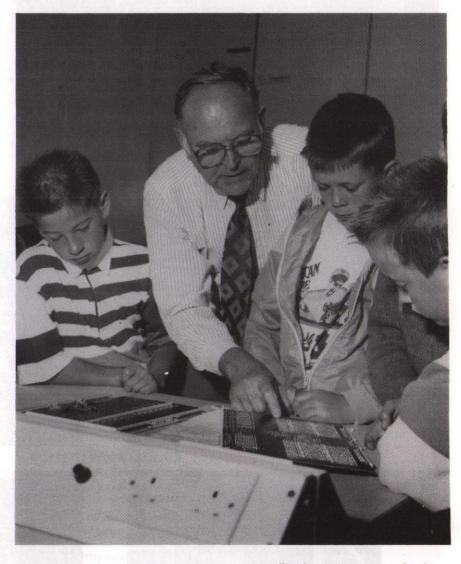
Hundreds of questionnaires have been returned by the visitors, from which the following entertaining comments have been extracted:

### What impressed you most about RAL?

"The stickers on the laboratory doors." (From a young Saturday visitor.)

"The enthusiasm and friendliness of all the staff."

"It's size - I hadn't realised how big RAL



was before, and how many different departments there were."

"The concentration of this amount of knowledge in a single Laboratory."

# How could we improve our next Open Days?

"Provide more basic explanations. A demonstration which begins "This is a hadron calorimeter......" does not help Mr or Mrs Joe Public. (Particle Physics Department should not take this

personally - this sentiment was echoed in comments about nearly all the exhibits.)

"Much more why and less what."

"Reconstruction of events eg..... the Big Bang." (A serious suggestion, but an unfortunate example.)

"The use of guides (humans) possibly?"
(NB No offence meant to our excellent guides - this was from an UNGUIDED visitor!)

continued over

### General comments on facilities -

There were many comments on how impressively clean and tidy the site was, although one visitor found that "the buildings were oddly laid out." (Not sure there's much we can do about that one:)

"More refreshments" was the cry from many people who suggested that we also try to organise cooler weather.

Other comments -

"Your Open Day was the best I've been

"I thoroughly enjoyed my visit."

"The most informative and enjoyable day spent at a scientific establishment for a long time."

"I think all SERC staff should be given the

opportunity to visit the establishments. I believe this would help to promote an awareness of the nature of the work that SERC does, and also promote a feeling of involvement which would in turn improve morale."

"Mind boggling."

"One day was not enough."

Without exception, visitors responding to the questionnaire had enjoyed their visits to RAL, and found the staff welcoming and the scale and variety of work fascinating. Many commented that information on exhibits at a more basic level would have been appreciated. "I'm a graduate in Electronics with a decade in industry and a decade in academe, and I was floundering to begin with in many of the exhibits and department." Nevertheless, everyone was impressed by the patience of the staff and their

willingness to explain their work and answer questions.

### **Open Days statistics**

Over 4000 individual invitations were issued.

Attendance:

Tuesday (schools day)

21 schools, about 500 visitors Wednesday (VIPs) 100

Thursday and Friday (invited guests) 900 plus 2 schools

Saturday (general public) around 3000

Over 100 information sheets were produced - if you would be interested to receive a list of these, please contact Press and PR Section on ext 5789.

Nearly 5000 copies of the RAL Open Days brochure have been distributed.









More pictures on centre pages.

# Commercial Exploitation of RAL Research

Over the years there have been several examples of research undertaken at RAL being exploited commercially by the British Technology Group (BTG) and its predecessor the National Research and Development Corporation (NRDC). Among the early items were a joint suitable for joining lengths of superconducting cable and electromagnetics software used in the design of magnets and other components.

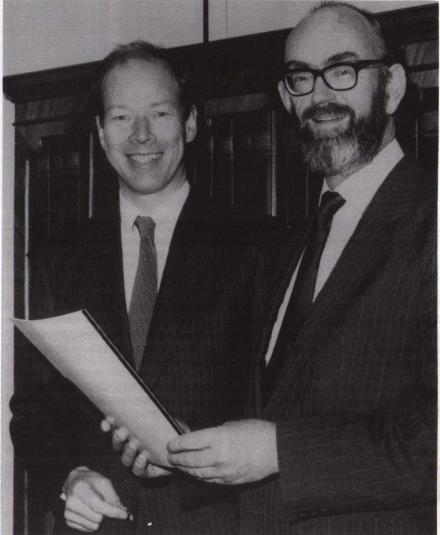
Under the old arrangements the NRDC had automatic assignment of RAL's intellectual property as of right but more recently these restrictions were removed and RAL became free to exploit its research through other channels. In 1987 the RAL Management Board decided to build on the expertise and experience provided by BTG and entered into a new agreement with them to facilitate technology transfer from the Laboratory to Industry. The initial contract was for a four year period with a major review at the end of the third year (in December 1990)

Under this agreement BTG undertook to provide an executive based at RAL one day per week to "assess the know-how, data, inventions and facilities with commercial potential". This role is being discharged by Maurice Cahalan who has identified examples in a number of areas including space technology, microlithography, microelectronics and radar systems. BTG submit progress reports to RAL every six months.

BTG negotiates licences with companies wishing to use RAL inventions and also provides funds for development work needed to take ideas to the market place. A good example of a development project funded by BTG is the second phase of an Ocean Surface Current Radar system (OSCR) involving two commercial companies, DTI and RAL.

A central feature of the new exploitation agreement provides for revenue sharing with RAL. These funds can be used to trigger new work but the intention is also to make financial awards to the inventors themselves. Treasury proposals enumerated by the Committee on Awards to Inventors (COATI) have been accepted in principle for use within SERC and a working party has been set up under the chairmanship of Dr Hughes to make recommendations for implementation.

It is hoped that the next article on this subject in the RAL Bulletin will be able to publicise some payments to RAL staff whose inventiveness has been exploited commercially.



Dr Paul Williams receives the latest progress report from Mr Ian Harvey (left), the Chief Executive of BTG.

# Computer corner

### Calling PageMaker Users

RAL Press and PR Section have joined the PageMaker User group - if you would like to be included on the circulation list for the PM bi-monthly newsletter, which includes details of meetings and helplines, contact Esther Peacock on ext 5777.

### Get the Mac Experience

Anybody who wants to try a Macintosh Mac IIx colour microcomputer with an Apple scanner, CD-ROM player and Montage colour slidemaker is invited to contact Brian Jones in R1, ext 5451. Programs include OmniPage for character recognition, Word word-processing, PageMaker for desk top publishing and

Persuasion for slide creation. The Mac has access to PROFS and CMS, Ethernet, and Reprographics' Linotronic 1275 dots per inch printer. Photographic can enlarge slides to overhead transparencies if required.

This Mac system is a prototype of a planned Photo-repro service.

# And now for something completely different....

If you're the artistic sort who prefers to put pen to paper, how about submitting a cartoon, crossword puzzle, or sketch for the Bulletin? With the scanner, we can incorporate your artwork before your very eyes - see your work in print!

MICHAEL OWEN

### **Outdoor Sports Day 1990**







......while RAL and Swindon Office staff take a breather

### Made in Heaven

Having secured his booking well in advance, Administration Department Head Richard Lawrence-Wilson managed to escape the tail end of the preparations for RAL Open Days by getting married on Saturday 7 July. Prior to the big day, Dr Paul Williams presented Richard with a wedding present (Dartington "Chateau" champagne flutes and sherry glasses) with the good wishes of friends and colleagues.

Richard and Debbie Lawrence-Wilson would like to thank friends and colleagues at RAL for the generous wedding gift - the champagne glasses will soon be put to good use celebrating the end of unpacking once the house move is complete.



Exclusive to the Bulletin, Richard has been persuaded to supply the following report on the proceedings: "The wedding ceremony took place beside the lake in Worcester College garden, and was attended by various wildfowl and American tourists as well as family and friends. It didn't rain. The Bride was 35 minutes late, causing Mozart's clarinet quintet to be played three times in succession, each rendition signalling a further deterioration in the Groom's nervous condition. She arrived at last, and we are starting to live happily ever after. Thank you all."

This year's sports day was marred by a number of injuries on the field, in the course of combat in the rounders and the football. However, the two RAL teams made it through to the Rounders final, and secured the Laboratory's only trophy of the day. Back home, the two RAL teams also reached the quarter finals in this season's Harwell lunchtime tournament, although the final here will be an all Harwell affair.

RAL's Deputy Director Gordon Walker presented the trophies this year, and the weather was fine for participation in angling, football, cricket, rounders, croquet, track, bowls, tennis and tug-ofwar, as well as the more gentle art of spectating.

# **Mission Completed**

The new Royal Greenwich Observatory was formally opened by the Duke of Edinburgh on Thursday 14 June.

The opening was the climax of an 18 month building programme which has given the Observatory purpose-built accommodation next to the Institute of Astronomy at Cambridge University. The Council Works Unit at RAL has been involved in four years of activity since the decision to move the RGO was taken by SERC in 1986. CWU involvement started with an initial survey of possible locations at various university sites, and ended soon after the formal handover from the main contractor for the construction work, Haymills Ltd, on 19 March 1990. As well as marking the end of present involvement for CWU the move also marks the beginning of a new chapter in the long history of the RGO, which already spans more than 300 years - the lease on the Cambridge site is for the next 125 years.



The SERC's new Royal Greenwich Observatory building in Cambridge - designed and constructed by the Council Works Unit.

### Travel Abroad

Winston Churchill **Memorial Trust** Travelling Fellowships are open to applications for travel and study abroad in 1991. Awards are available in a wide range of countries and subject areas. Any project in Central or South America or Eastern Europe will be considered, and particular subject areas suggested include Metrology, and Exploration and Adventure for Women. Applications must be received by Monday 29 October. For further details contact Julia Gilling in Personnel, ext 5520.

### Going strong



Alan Farmer (left) of Space Science Department is seen here being presented with a commemorative Wedgewood plate by the Chairman of his local Blood Transfusion Centre in June. Alan received the award for making 100 donations to the Blood Transfusion Service. In addition to the six monthly blood donations which we are all encouraged to make when the Service visits the laboratory twice each year, Alan visits his local centre for plasmapheresis every three to four weeks. This process involves separating the red corpuscles, and returning these to the donor's blood stream. In this way, other vital components of the blood such as Factor 8, which are manufactured by the body more quickly than the red corpuscles, can be donated more frequently.

# **ROSAT** in Operational Mode

The West German X-ray satellite, ROSAT (Röntgensatellit) was successfully launched on an American Delta rocket from the Kennedy Space Centre in Florida on Thursday 31 May 1990. In orbit at 580 km, it is now circling the Earth 15 times a day, transmitting data back down to the Ground Station and Control Centre in West Germany once every 24 hours. The satellite carries three instruments which, over the next six months, will perform an all-sky survey in the X-ray and XUV regions of the spectrum. Following this the satellite will be used a space observatory, pointing at particular targets on command to allow longer observation times on specific sources.

The £18.4 million UK contribution to the mission is the Wide Field Camera (WFC). which will cover the virtually unexplored wavelength region between UV and X-ra - the extreme ultraviolet (XUV). The instrument has been built by a consortiur led by Leicester University; one of RAL's roles has been to develop, manufacture and calibrate the special optical filters. "No manufacturer in the world could provide the filters to our high specifications, so the entire job was done here at RAL," said Bruce Swinyard, interviewed by Central TV. The camera will image each source within the field of view with an accuracy such that it should discover several thousand UV sources, compared to the four sources discovered by a previous mission to investigate these wavelengths (on Apollo-Soyouz in 1979).

On Thursday 21 June, exactly three weeks after launch, WFC observed its first source. Twenty seconds worth of data was

gathered, and the outlook is good - the focus and alignment of the camera are well up to specification. RAL will be coordinating the UK share of the data processing and operations software for the ROSAT mission, which includes providing a data centre for the preliminary analysis of data in the UK.



The ROSAT Wide Field Camera.

### **MISSING**

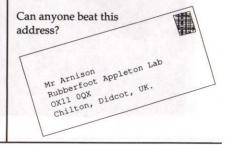
Brown Manade desk lamp serial no. LB1395L, lost during office move from R25 to R66. Contact: Adrian Wheldon (now at Swindon Office), ext 74 2071.

Another Manade desk lamp, label number R038278, lost from Accommodation Section. Contact: Chris Taylor, ext 6370.

#### **Russian Electronics Exhibition**

On Wednesday 26 September in CR7 R12, the Russian company INCOMPEX will be exhibiting electronic equipment exported under a joint venture by the USSR, Finland, and West Germany.
Oscilloscopes, infrared camera, streak camera, vacuum components, and auxiliary equipment will be on display.

### Mis-cellanea



# Award achievements

Following hard on the heels of his Zeldovich award from COSPAR, the Committee on Space Research, in April, comes a further award to Mike Lockwood, this time from another worldwide organisation the International Union of Radio Science, URSI.

Mike has been awarded the Issac Koga Gold Medal for "highly significant contributions to the understanding of non-thermal ionospheric plasma and ionospheric convection, successfully combining physical intuition and a deep knowledge of theoretical and observational aspects of ionospheric physics." The award is made to young up-and-coming scientists under 35, and is one of just four URSI medals which are awarded every three years.



Mike's achievements were reported by Bill Mitchell, SERC Chairman, in his June report to the Council. The medal was presented at the opening session of the URSI General Assembly in Prague, Czechoslovakia on Tuesday 28 August. Mike's enthusiasm for and enjoyment of his work were evident in his acceptance speech, in which he thanked all his colleagues at the Lab for their support.

# RAL Open Days 1990























# Summer



Alan Carne retired in May after a 30 year career at the centre of RAL's innovative accelerator technology.

According to Director Paul Williams, "Alan's ability to achieve the impossible derives from his early training at Oxford's Wadham College as a mathematician - well known for producing a breed of scientist unrestrained by the real world."

RAL leads the world in pulsed muon spectroscopy, in large part due to Alan's pioneering work.

According to Dave Mann, when Bill Burniston retired from Engineering and Building Works Division in June, his years of experience were little preparation for his new career where he would be involved in the life testing of garden chairs, investigations of the effect of ultraviolet and infrared radiation, and studies of botany, although he would be well equipped with a wide variety of engineering skills!



Bryan Colyer retired from Informatics Department in May, having been with the Laboratory since 1961, when he transferred to NIRNS from Harwell. Bryan started work on the National Hydrogen Bubble Chamber, and progressed rapidly through the engineering grades. At the time of his retirement, he was in a unique position at RAL and SERC, being the only Grade VI Individual Merit Engineer, a promotion awarded to him in July 1978.

One of Bryan's major achievements was his design work for the James Clerk Maxwell Telescope (JCMT). He was also the pioneer of RAL's involvement in the European ESPRIT programme, being involved in an early project on Product Data Exchange.

Making the presentation, Director Paul Williams said that throughout his career Bryan had been one of our best engineers. As a memento of his time at RAL, Bryan was given the first ever hand held electronic calculator purchased by the Lab, which he had bought, mounted on a picture of the JCMT. He had asked that any collection was to be given as a donation to charity, and so Dr Williams presented Bryan with a cheque for £115.



David Gray presents Bob (left) with a weather monitor to keep him busy during his retirement.

"Bob Stone could interpret a scientist's wishful thinking into practical engineering reality," said David Gray, Science Department Head, making a retirement presentation to Bob at the end of May. From 1961, when he joined the Laboratory, this skill had been put to good use - Bob worked on NIMROD, in the experimental halls, and in R18 maintenance, before he finally moved to ISIS in 1980.

During his career he had solved many general site service problems for the Laboratory, as well as helping the scientists - he earned particular gratitude for solving the mystery when the fans began to fall off the cooling tower, (due to faulty speed control).

# retirements

Peter Barker, Associate Director Technology and Chief Engineer, retired at the end of April.

Dr Paul Williams reviewed Peter's career at the official retirement presentation, and his involvement in a wide variety of successful projects. Some of these, completed during his early career at RAE Farnborough and AWRE Aldermaston, were shrouded in secrecy, but others from Peter's former Laboratory career with Space Science Department were a renowned success. These latter projects included the International Ultraviolet Explorer (IUE) satellite, launched in January 1978 and still sending back data today. In his most recent career as Chief Engineer, Peter helped solve many of the ongoing problems relating to the work of RAL and SERC wide engineering personnel, including the training of young entrants and their career development.

Dr Williams presented Peter with a cheque, which Peter intended to put towards an old clock to add to his existing collection, and a commemorative plaque to mount on the clock produced by R12 workshop using latest CAD/CAM technology, together with the traditional Ray Roberts' card.

In his reply, after thanking the assembled company, Peter passed on these words of advice to fellow engineers: "Status is not a right, it has to be earned. It is therefore important that Engineers





At a special presentation by Space Science Department, Peter received an album of photographs to remind him of his SSD days. L to r: Mike Cruise, Eric Dunford, Mike Sandford, Peter Barker, John Harries.

write up and present their achievements, as is the practice in the scientific community." He admitted to often being engrossed in his work at the expense of attention to his wife and family, and so he thanked them for their many years of support and consideration.

Maurice Cawthraw retired from Electronic Division in April, amid a host of good wishes from colleagues past and present. He started life with the Laboratory at NIRNS in 1961, and was later responsible for nearly all data handling equipment for the HEP group. He always played a highly professional and productive role at RAL - from the early days at NIMROD and the CERN PS to the pp collider and LEP, it was said that there could be very few HEP experiments involving British groups which had not had the Cawthraw stamp somewhere on their electronics. Maurice was considered "a born Professional Engineer", and, quoting a colleague at CERN, Peter Sharp bid farewell to Maurice with the words "it's been great having you and your electronics around."

Maurice (right) was presented with a route finding book - to be put to good use now he has time to indulge his love of walking - a Workmate tool, and a decanter.

Atlas Computer Services Division Head John Barlow is seen here saying goodbye to two of his staff who retired over the summer.

(Left) John made the presentation of a silver tray and a selection of cut glass to Reg Barnard, who was joined by his wife for the occasion when he retired from Atlas in July.

(Right) Millie Ayres was looking forward to relaxing in the garden chair she had been given, amongst other retirement presents, when she left at the end of June.





Further retirements since May will be covered in the next issue.

# The Cosener's House, Past and Present



The Cosener's House, past (1951).....

......and present (1990).

### Obituary

### **A T Walters**

We sadly report the death of Trevor Walters of Science Department, who died on 5 May aged 60. He was a well known figure to ISIS staff and visitors as the person in ISIS Health Physics office who issued them with personal dosimeters and systems of work.

Trevor joined the Royal Marines in 1947 and served with them for eight years on general duties, which apparently ranged from cold wet voyages in landing craft to scaling cliffs in full kit.

He joined Capenhurst in 1955 working in the vacuum group on inspection duties, and in January 1960 was seconded with several others to NIRNS to test NIMROD vacuum vessels. They formally joined NIRNS in January 1961. Following the closure of NIMROD he assisted in the disposal of large amounts of equipment no longer required for the SNS project. He moved to ISIS Health Physics Section in 1985 and also ran the SERC/NERC irradiation service, on a part-time basis, until its closure in 1988.

Away from work he served in the Territorial Army (Royal Engineers) for 12 years, reaching the rank of sergeant. He was also closely associated for a number of years as a trainer with the Blewbury boxing club.

Trevor enjoyed life to the full, and is sadly missed.

### Thank You

Mollie Walters would like to thank all Trevor's friends and colleagues for their generous donations in his memory, which have been sent to the British Heart Foundation. A group of former residents from 1960, including some present RAL staff members, enjoyed a reunion at The Cosener's House in June, some 30 years on.

The Cosener's House was home to longstay AERE guests from 1948 to 1960. As fond reminiscences of the good times and good companionship during those years were shared, the talk was tempered by a tinge of envy at today's conditions. And no wonder - the luxurious provision of the recent new development bears no comparison to Cosener's former standard of four to a room, when no heating led to problems with river mist and frost on the bedspreads (it was said).

It was unanimously agreed that the afternoon spread laid on by the staff for high tea was a far cry from the fare available under post-war rationing. But the cherished old photographs on display revealed a lively round of social activity nevertheless, including car restoration activities around the grounds and some lively theme parties.

# **Exam Time for Training Section**

Dave Goss joined the RAL Training Section on 30 July, on secondment from Swindon Office. The creation of this new post was one of the recommendations made during the course of a review of training at RAL undertaken by Harold Wroe. His comprehensive report is due to be published in the near future.

Dave's main duties include the organisation and running of on-site induction courses, tutorial support for interactive video instruction and distance learning material, and the provision of a training consultancy service. A proportion of his time will be spent tutoring on Joint Training Service (JTS) management courses.

Whilst the high quality of the science and engineering research at RAL was beyond question, Harold Wroe argued that the Laboratory "must be seen as a place where *everything* is good stuff, if it is to survive into the 21st century." He recommended that the profile of training at RAL, particularly management training, should be raised.

Harold's review emphasised the importance of Human Resource

Development (HRD), a concept to which Dave is strongly committed. "HRD is about getting the best out of people for the benefit of both the organisation and the individuals concerned," says Dave. "Although there is a lot of very advanced and expensive equipment at RAL, the Laboratory's most precious resource is its staff."

In the short term Dave's priority is to get Induction Courses for RAL staff up and running, but he is keen to discuss training with anyone who's interested. He can be found in R20, room 62, ext 5361.



New to Training Section - Dave Goss

## **Notices**

### **Film Badges**

Period 9 colour code orange ends on Sunday 9 September. Period 10 colour code blue begins on Monday 10 September. Please check that you are wearing the correct badge and return old ones to Harwell.

### **RAL Christian Fellowship**

September meetings

6 - Prayer meeting
13 - Book review
20 - Bible study
27 - AGM
Meetings are held in CR6, R2 at 12.30pm each Thursday. Visitors always welcome.

**Sales of scrap** to employees will take place between 12 noon and 12.30pm in the R24 scrap compound on Friday 7th and Friday 21st September.

### **RAL Tennis Club**

There is a court available for booking by Club members for lunchtime, evening or weekend play. Membership costs £2 (ordinary membership) or £3 for family membership. If you'd like to join please contact Janice McPhail in R20, ext 5846.

#### **RAL Lecture**

There will be no RAL Lecture in September. The next lecture will be held on Thursday 18 October. Details in next month's Bulletin.

### **Bridge for All**

Friday 14 September

### 7.30 pm RAL Social Club

An Autumn Bridge tournament is being held. Open to all RAL staff members and their husbands, wives, and friends, there will be a charge of 50p for Bridge Club members and £1 for others. Coffee and biscuits will be served, and drinks can be bought from the bar.

For further information contact Peter Starling, ext 5530.

### Faulty oscilloscopes

We have received a letter from Gould Electronics Ltd, informing us that some of their 1600 series oscilloscopes, in the serial range 001XXXXX to 020XXXXX, sold since January 1990, may malfunction on the 200 second timebase range. If you have one of these instruments, please contact the Press and PR Section on ext 5789 for further details.

# **Bright ideas**



Ian (left) explains the principles behind his idea to David Gray, after the presentation of his awards in May.

Ian Freeman joined the ISIS detector group knowing nothing about neutron detectors - in just three years he had improved the manufacturing method so considerably that he had won two awards through the suggestion scheme for his ideas.

Neutron detectors are a crucial part of ISIS operations. It is the ability of RAL staff to produce them in the required geometrical shapes and with the right characteristics

that makes many ISIS instruments unique.

Six 90° detectors (designed by Peter Davidson) were built for the HRPD instrument. With around six and a half thousand optical fibres employed in each detector, the job of making the right connections initially took almost a month. Ian devised two separate methods of cutting the time taken to route the fibres correctly, and received awards totalling £600.

# Acknowledgements

Margaret Barker and family would like to thank Brian's friends and colleagues for their kindness and generosity. The collection of £388 in Brian's memory has been donated to the Swanage Lifeboat Appeal and the Intensive Therapy Unit at the John Radcliffe Hospital.

Bob Stone thanks friends and colleagues for their good wishes and presents on his retirement. He wishes you all Good Fortune in your future careers.

George McGee retired from the Mechanical Workshop in May. He thanks all his friends at RAL for the super gifts and, most of all, for their friendship. George says he is now acting on instructions from his wife to grow old gracefully - collecting enough varicose veins to look like a road map, and enough wrinkles on his forehead to be able to screw his hat on.

The following note comes from Bruce Champion: "Many thanks to all those who contributed to a memorable send-off, and cheers to those unseen on my post/preretirement."

Maurice Cawthraw says goodbye to his friends and colleagues and thanks them all for their generous gifts on his retirement, and their help and support over the years.

Bryan Colyer thanks all his friends and colleagues for their good wishes and contributions on his retirement. The cheque has been forwarded to the Multiple Sclerosis Society. Bryan hopes to maintain contact with the Laboratory in the future

Peter Barker thanks friends and colleagues for their gifts and good wishes on his retirement. He wishes them all goodbye, and good luck for the future.

# RAL Open Days 1990 Staff Questionnaire

Thank you for helping to make this year's Open Days a success. As a member of staff, your opinions on the event would be particularly welcomed to help us in the presentation of future programmes. Any general comments you would like to make would also be welcomed. A draw will take place of all returned questionnaires on Monday 1 October, and a £10 book token will be awarded to the first drawn.

Did you feel able to answer the questions that the visitors had, and were you able to assess their level of technical knowledge satisfactorily?  What did you perceive the visitors' level of technical knowledge to be?  If Open Days were to include a Sunday, would you be prepared to be on duty, if necessary? Yes/No  Please give your impressions of the Open Days  On which day(s) did you see the exhibitions?  Saturday / Monday  (The following areas were on display: Central exhibition, Space science, ISIS, Technology (R12, R18), Electronics, Radio communications, Electron beam lithography, Atlas Centre, Informatics, Council Works Unit, Library, PhotoRepro, Particle phys. Lasers.)  How scientifically literate are you?  What interested you most about the exhibits you saw?  How much did you understand of the information given at other Departments exhibits?  Was the Open Days brochure interesting?  No / Not very / Yes / Very interesting  Did you find the brochure content (outside your own area)  Too basic / Reasonably straightforward / A bit too detailed / Too tech What do you think would have most impressed visitors to RAL?  Now could we improve our next Open Days?  Any other comments  BLDG	Were you on duty during Open Days?	No / Demonstrating / Guiding
What did you perceive the visitors' level of technical knowledge to be?  If Open Days were to include a Sunday, would you be prepared to be on duty, if necessary? Yes/No  Please give your impressions of the Open Days  On which day(s) did you see the exhibitions?  On which day(s) did you see the exhibitions?  Saturday / Monday  (The following areas were on display: Central exhibition, Space science, ISIS, Technology (R12, R18), Electronics, Radio communications, Electron beam lithography, Atlas Centre, Informatics, Council Works Unit, Library, PhotoRepro, Particle phy: Lasers.)  How scientifically literate are you?  What interested you most about the exhibits you saw?  How much did you understand of the information given at other Departments exhibits?  Was the Open Days brochure interesting?  No / Not very / Yes / Very interesting  Did you find the brochure content (outside your own area)  Too basic / Reasonably straightforward / A bit too detailed / Too tech What do you think would have most impressed visitors to RAL?  How could we improve our next Open Days?	satisfactorily?	
Please give your impressions of the Open Days		
On which day(s) did you see the exhibitions?	If Open Days were to include a Sunday, would you be	prepared to be on duty, if necessary? Yes/No
On which day(s) did you see the exhibitions?		
On which day(s) did you see the exhibitions?		
communications, Electron beam lithography, Atlas Centre, Informatics, Council Works Unit, Library, PhotoRepro, Particle phys. Lasers.)  How scientifically literate are you?		
What interested you most about the exhibits you saw?  How much did you understand of the information given at other Departments exhibits?  Was the Open Days brochure interesting?  Did you find the brochure content (outside your own area)  Too basic / Reasonably straightforward / A bit too detailed / Too tech what do you think would have most impressed visitors to RAL?  How could we improve our next Open Days?		
How much did you understand of the information given at other Departments exhibits?  Was the Open Days brochure interesting?  Did you find the brochure content (outside your own area)	How scientifically literate are you?	Not at all / Not very / Moderately / Very
How much did you understand of the information given at other Departments exhibits?  Was the Open Days brochure interesting?  Did you find the brochure content (outside your own area)  Too basic / Reasonably straightforward / A bit too detailed / Too tech What do you think would have most impressed visitors to RAL?  How could we improve our next Open Days?	STREET, The Late of the Control of t	
Was the Open Days brochure interesting?		
Too basic / Reasonably straightforward / A bit too detailed / Too tech What do you think would have most impressed visitors to RAL?  How could we improve our next Open Days?  Any other comments		
What do you think would have most impressed visitors to RAL?  How could we improve our next Open Days?  Any other comments	Did you find the brochure content (outside your own a	rea)
How could we improve our next Open Days?  Any other comments		to RAL?
Any other comments	How could we improve our next Open Days?	
	Any other comments	
NAME BLDG		
	NAME	