Bulletin

of the Rutherford Appleton Laboratory 6 Jan 1982 No.1

Bonne Anniversaire ~ ILL

1974 - and the RAL team responsible for the first ILL instrument to be provided by the Laboratory, gathered in front of R25 to see it on its way. This was D3, a polarised neutron diffractometer, still very much in use for the determination of magnetic properties of crystals. 16278

On Wednesday 16 December one of the most powerful neutron beam reactors in the world, at the Institut Laue-Langevin (ILL), celebrated its 10th Birthday. Earlier in the month Britain, France and Germany signed an agreement that ensures that ILL will also have a 21st Birthday in 1992 and that RAL participation in future research programmes at the centre will continue.

The three countries had decided on a modernisation programme in 1979 but the original agreement expires in 1982, hence the need for a new agreement.

The Institut is a non-trading company under French civil law, the partners of which are Britain's Science and Engineering Research Council, France's Centre National de la Recherche Scientifique and Commissariat a l'Energie Atomique, and West Germany's Kernforschungszentrum Karlsruhe. Its 1981 budget was FF150 million. The reactor acts as a central research facility for universities and laboratories in Britain, France and the Federal Republic of Germany. Primarily a user facility, 70% of available neutron beam time is allocated to external scientists.

RAL has had a long and continuing association with the research programme at ILL. Staff of Neutron Division (formerly the Neutron Beam Research Unit) have been attached to the Institut since the UK Government's original intention to join was announced in 1972 (when RAL was called the Rutherford High Energy Laboratory!). The Laboratory was responsible for providing some of the earliest (and successful) neutron-scattering spectrometers for the Institut and subsequently components of the ultra-cold neutron facility, since used widely by HEP Division staff and their university colleagues.

The Neutron Divion is responsible for supporting the 300-plus UK scientists who visit the Institut each year to carry out experiments, and has played a prominent role in the recently approved modernisation programme, particularly in the specification for the new mainframe computer and design of new spectrometer which will take the Institut into the 1990s. The Head of Neutron Division, currently Harold Wroe, is traditionally one of the four UK members of the Institut's Steering Committee.

The £11.5 million modernisation programme covers the construction of new experimental instruments for advanced neutron techniques that will widen research possibilities at the facility. The programme also provides for the installation of a new computer centre and new laboratories.

Library Announcement

On Tuesday 19 January all the Library staff (bar one hardy soul) will be on a Library Database Course - this in order to give an even better service to our customers in the future.

We ask you therefore, to ring the Library only on Ext 384 and to bear with us if the answer is not immediate.

Normal service will be resumed on Wednesday.

INTERNAL Events

NIMROD LECTURE
R61 CONF.RM - 1400hrs

25 Jan: Dr R Ecckstone/DAMTP
"Two-Loop Calculation of σ_L/σ_T in QCD"

HEP SEMINARS
R61 CONF.RM - 1100hrs

13 Jan: Dr J Carr/RAL
"Recent Results on Nucleon Structure Functions from EMC"

20 Jan: Dr M C Goddard/RAL
"Studying Quarks and Leptons with the JADE detector at PETRA"

CONDENSED MATTER SCIENCE SEMINARS
R3 CONF.RM - 0930hrs

12 Jan: Prof R A Cowley, FRS/Edinburgh
"The Effect of Random Magnetic Fields on the Ordering and Phase Transitions of Magnetic Materials"

19 Jan: Dr J A Blackman/Reading
"Neutron Cross-sections for eV Transition's in Semi-conductors"

ASTROPHYSICS SEMINARS
R61 CONF.RM - 1400hrs

13 Jan: Richard J Davis/Jodrell Bank
"3C273 and Other Results from MERLIN"

20 Jan: Ed Budding/Manchester
"Binaries in Contact: Where are their Parents? and Children?"

Directors at RAL

On 7 December the SERC Directors Committee took place at RAL, after which they made a tour of the site, getting up-to-date with some of the latest developments.

Professor Kingman (SERC Chairman) and Dr Geoff Manning being shown high frequency microwave mixers developed by the Millimetre Technology section of the Remote Sounding Group, by Brian Ellison. 37852

The European Space Agency plans to launch a spacecraft to encounter Halley comet at its next appearance in 1986. The Giotto spacecraft will fly through the comet's atmosphere passing close to the nucleus. While the on-board camer is relaying pictures back to earth, other experiments will conduct measure-ments of the dust and plasma envelope which constitute the comet's tail.

Pictured with models of Giotto, Professor Longair (Director ROE) and Dr Atkinson (Director ASR and Nuclear Physics Boards). 37854

RAL Colours

The next lecture in this series will take place in the Lecture Theatre on Thursday 7 January at 3.15pm.

"PHOTON CORRELATION
AND ITS APPLICATIONS"

by

DR E R PIKE
Royal Signals and Radar Establishment,
Malvern

Work at RSRE over a number of years and the exploitation of coherent light as a type of "Doppler radar" source in the visible region of the spectrum will be described. Very early in the programme it was necessary to consider quantum effects, and signal processing methods involving the digital correlation of photon detections were developed.

The work has had a wide impact and has extended to many applications in physics, chemistry, biology and engineering where coherent light may be used as an optical probe of motion, from that of atoms to that of tanks or aeroplanes.

FOR YOUR DIARY: The next lecture will be on 21 January 1982 by Mr N J Phillips of Loughborough University of Technology entitled "Holography"

Library Notice

The following book has disappeared from display.

"Evaluation of Database Management" by J M King.

Please return it immediately!

Will whoever has the Library copy of 'Remote Sensing of the Environment' by J Lintz, please ring Cathy Costain Ext 384.

Missing

An Avometer Model 8, serial no 90187-A-459 label no. R006419 has disappeared from Lab 1 R34. Would anyone knowing its whereabouts please contact W A Smith Ext. 6600.

Dave Kelsh would also like to find his Tektronix plug-in amplifier type 1A4 serial no. V00 5515. Please ring Ext 6500 if you can help.

Balloon Platform on Show

37667

Campaigns in the deserts of Texas, Staff tours in the arctic conditions of RAL winters - the organisation of the Stabilised Balloon Platform team can cope effectively with both! This was demonstrated on Tuesday 15 December when 173 members of staff attended the latest tour in a series designed to introduce the various and diverse facets of the work of RAL to all its personnel.

Not that it was easy. Scheduled preparations for the event, with Mike Farman the team leader, stuck with vital equipment in blizzard conditions somewhere west of Wantage and doubts about the arrival of other team members from Slough, needed logistic flexibility. Even on the day plans had to be slightly modified - and it was all a great success!

Of the 300 or so who wanted to attend, about 70% managed to turn up and benefited from the experience of seeing at first-hand how the Platform fits into the work of RAL as a whole - a record attendance at Staff Tours to date. Requests for a repeat performance of the film about the Balloon Facility at Palestine, Texas were numerous and arrangements are in hand for a showing to a wider audience, at lunchtime in the Lecture Theatre towards the end of January.

All the team were on hand to answer questions. Peter Curtis gave a general introduction to the project, Mike Farman explained the design of the platform, Alex Hardy details of the electronic engineering and Ian Crutcher talked about ground station monitoring. Samples of the balloon fabric caused surprised comment. How could such a delicate fabric in such large quantities be handled without damage? The platform on show was not the Mk II recently featured in the *Bulletin* - that is still in the States - but the Mark IA which is at present in preparation, with modifications made to bring it up to the Mark II standard, for a flight campaign due to take place in August.

We wish the Team equal success with this next challenge

Thanks

To the many friends and colleagues whom I did not see before I left the Laboratory I say thank you and Good Luck for the future. Jim Lawler.

Sales to Employees

The sale of scrap metal and plastics as set out in RLN 12/73 will be made on 8 and 22 January.

Sales take place at the rear of R24 Store from 1200-1230hrs.

Happy New Years

A new year brought a new phase of life for two of our colleagues who retired last month.

Hugh

37665

Hugh Roskell's farewell party held on Monday 21 December was very enjoyable - but then enjoyment appears to have been the theme of Hugh's long and distinguished career. As he himself said, "I have enjoyed it all, especially the last few years."

Hugh joined Harwell in 1946, from the Royal Navy and became what Jim described as the mould from which all DAOs should be made. In 1958, having sorted out Harwell, he went to Winfrith as Site Manager, setting up the new site, and there he enjoyed the challenge for 9 years, until in 1967 he was sent to Risley as Computer Manager when, it is reported, life became more stern and earnest, though he did manage a trip to Australia during this time!

In 1973 he joined Management Services and on 5 May 1976 he joined the Rutherford Lab, being installed in one of the Chilton flats just to show that life at RL was not so easy. After some trials and tribulations he settled at Faringdon.

Though Hugh had only been officially with RAL for 5 years, such are the ties that inextricably link us with Harwell, that colleagues of those days are colleagues still, and most of them seemed to be in the Coffee Lounge to hear Jim Valentine thank Hugh, on behalf of us all, for his efforts.

During his time at RAL, he set up HEP at DESY and successfully installed all families in Hamburg. The new Telephone Exchange studies were also his responsibility. Such was the care with which he looked after the contingent of Chineses visiting scientists, that they invited him to visit them in China - a visit he will always remember.

"Thank you Hugh, we wish you every success in the future", concluded Jim, as he presented Hugh with a camera, and a ½" drill and stand.

"It's an odd thing about these occasions" said Hugh in reply, "It's like a trial. There's no defence until you've heard what the prosecution has said! I have enjoyed my 35 years, I like working with technical men and I shall miss the contact with RAL. Eventually we hope to move down to Poole, when you'll all be welcome to drop in! Thanks to you all, - there are refreshments next door - please will you all join me."

Jim

37692

Jim Lawler's presentation ceremony took place in the Lecture Theatre on Wednesday 23 December. Roy Tolcher opened the proceedings by welcoming Jim's wife Florence, to share the occasion.

"Jim is a long standing member of the community, having joined Harwell in 1957 and NIRNS eighteen months later. He was the first person to greet me when I arrived and we have worked together ever since", began Roy. "He has been involved in an enormous variety of projects, starting way back before Nimrod. Naturally he had a share in the building of Nimrod, in bubble chambers and in the beginnings of computing, with ORION. He has worked on IRAS, superconducting magnets - you name it, Jim's done it! His career reads like a history of RAL and because of this wonderful contribution to the Lab over the past 24 years, he will be sorely missed" he continued.

He then thanked Florence for all her help and support with a large and beautiful bouquet of flowers.

Jim's turn came next. From his traditional specially prepared card, we learned that Jim was a Judo expert and had recently become acquainted with French. His gifts came thick and fast, a tray bearing a picture of RAL, whiskey, a multi-metre, a power-saw (with test certificate) a knife sharpener and two mysterious parcels.

The delight on Jim's face as he opened the first to reveal a model of the IRAS dish, became amazement when the second parcel proved to contain a portrait of himself in oils, by Alan Wells. "It's absolutely magnificent" he said "I'm over-whelmed. Only this week have I realised that it's not leaving the job that is sad, it's leaving the people".

Jim then spoke of the pride he had always felt in the projects that had borne the name of R18 and the special pride he had in his own group. Together they had marched forward and had achieved a great deal and he thanked them all. To the 'girls' of the Lab who had always provided a friendly shoulder to weep on (that's what he said) "I love you all".

"Thank you all for a wonderful 24 years - I shall not forget you".

Coffee at Cosener's

Just to remind you that the next RAL wives coffee morning will be on 14 January from 10.30am to noon. We hope to see many of you.
A Happy New Year to All.

Ann Corbett and Mary Rousseau

Bulletin

Editor: Jean Banford
Building R20
Rutherford Appleton Laboratory
Chilton, Didcot, Oxon OX11 0QX
Abingdon (0235) 21900 ext 484

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