
Rutherford Appleton Laboratory

Bulletin

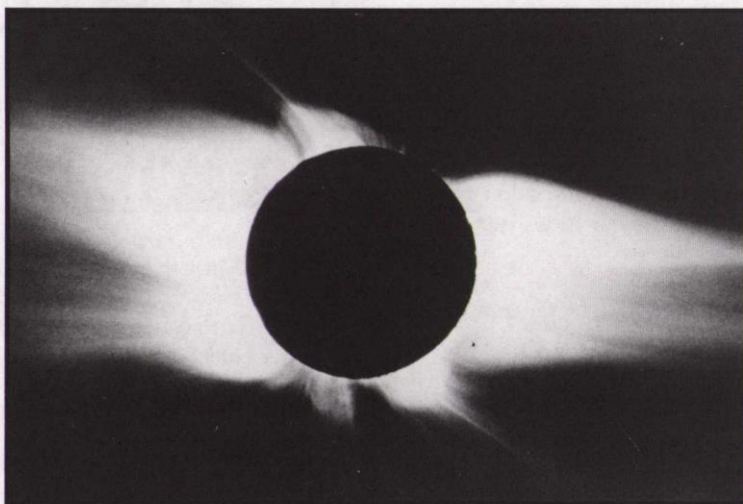
Acting Editor Jacky Hutchinson

July 1991

JCMT in the dark

On Thursday 11 July at 0730 hrs local time a total eclipse of the Sun will occur over JCMT (James Clerk Maxwell Telescope) in Hawaii giving solar physicists a unique opportunity to study the Sun's corona, the outer atmosphere of the Sun normally obscured by its light.

Richard Harrison and Martin Carter from Astrophysics Division are taking advantage of this occasion and will be joining other members of a small team of scientists to carry out research using JCMT. They will be taking with them a system which Martin designed and built. A PC has been enhanced with a transputer, providing a portable but very powerful and flexible data collection and processing system.



An eclipse of the Sun occurs once or twice a year. However, this eclipse will be directly over one of the best observing sites in the world and, with scientists from many countries converging on Hawaii, it promises to

be the most studied eclipse ever. There is a two hour period during which the moon will be blocking out part of the Sun; the period of totality when the Sun is completely obscured is only four minutes.

.... and a new Laser Light

A coherent, saturated X-ray laser beam has been produced for the first time recently on Vulcan using a germanium target.

A high temperature plasma (10 million K) is created when the optical laser beam from Vulcan is focused on to a germanium stripe 100 microns wide (just visible to the naked eye) and 38 mm long. Soft X-rays emitted by 22 times ionised atoms in the hot germanium plasma

are amplified more than 100,000 fold as they travel along its length. By using a high reflectivity mirror to bounce the beam immediately back through the plasma, the intensity of the beam is amplified to produce this saturated, coherent X-ray beam.

This unique beam is being used in preliminary X-ray microscopy and should be able to produce high resolution, three dimensional images at minute sizes from holograms. Because this X-ray beam is very short lived (not more than one nanosecond,

a thousand millionth of a second) it will enable biologists to record instantaneous images of living material in three dimensions for the first time.

Stop Press

**Launch of ERS-1 satellite delayed for repairs to Ariane rocket. Latest date for launch is Wednesday 17 July.
Ring ext 5318 for up to date news.**

Visitors to RAL



Alan Howarth (right) MP, Parliamentary Under Secretary of State, Department of Education and Science, being shown the ISIS model by the Director, Paul Williams (left), while John Finney and Bob Voss look on.

Julie Brewer

It was with the greatest sadness that we learned of the sudden death of Julie on 8th June after a very short illness.

Julie came to RAL in 1984 and worked for a number of years in Neutron Division, where she made many friends and earned the respect of everyone who came into contact with her. After a year in the Directorate, she returned to Science Dept, as PSec to Bryan Boardman – Head of Operations Division.

She had many interests outside RAL, being a member of Steventon Choral Society and a staunch supporter of the Williams motor racing team.

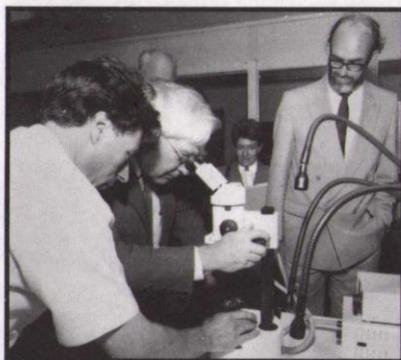
When she came to RAL, her interview board found her to be 'a charming young girl who impressed (them) with her enthusiasm. Polite and articulate, she would fit into any of the vacancies available. She finds it very easy to get on with people.'

We found her to be all of these things and mourn the loss of such a good colleague and friend at the age of just 26 years 3 months.

It was a privilege to have known her and we extend to her family and friends our most sincere condolences.

Trevor Hyman

Mr Howarth toured ISIS after giving the opening address at the IBM/SERC Seminar in May which marked the completion of a two-year study agreement between IBM and SERC on supercomputing and its applications.



John Spencer (left) showing Sir Mark Richmond, Chairman of SERC, a high frequency microwave device which will be used on the Earth Observation System Microwave Limb Sounder (EOSMLS).

Women in Science Course 1991

There are several schemes aimed at inspiring more girls to take up science as a career. On 5 June, RAL ran its own Women in Science course for 36 fifth form girls from eight local schools in Didcot, Wantage, Abingdon, Wallingford, Faringdon and Cumnor. The course was designed to show that a career in science and engineering can be interesting and exciting, with a special emphasis on attracting girls.

In the morning the girls, in pairs, shadowed members of staff, participating in their regular (but perhaps stage-managed) activities.



Sue Tavender (left) explaining to local pupils how a dye laser/cavity dumper works.

Kids, Gadgets and The Works

Three members of Informatics Department, Raymond Fawcett, Martin Prime and myself (David Johnston) stalwartly manned a stand at an exhibition for school children entitled 'Kids, Gadgets and the Works', held at Callington Community School in Cornwall from June 13 to 15. The idea behind the exhibition was to unite the school subject of 'Craft, Design and Technology' with what adults do for a living.

Our stand displayed photographs of various activities at RAL and all our exhibits were interactive. The multi-player flight simulator, built from around 20 transputers and intended to show the power of parallel processing, was mobbed by hoards of school children. Overall, the exhibit was rewarding but exhausting.

Last Deliveries

Mavis Daley

Mrs Mavis Daley took personal delivery of a parcel on her retirement day, Thursday 30 May. Not a remarkable event you may think until you remember that Mavis has been in charge of the RAL Post Room for the past 15 years. She was a messenger for 10 years prior to that, and this parcel was probably the first she had really welcomed. Containing a bone china cup and saucer from her Post Room colleagues, it was much appreciated.

Making a further presentation of a coveted Ray Roberts card and a substantial cheque from her Lab-wide satisfied customers, Joe Hamilton thanked her for all her

hard work including those services she'd performed 'beyond the call of duty. We shall truly miss her,' he said.

Mavis thanked everyone for the gifts and for their good wishes and invited everyone to the spread that she and her colleagues had prepared for the occasion. It was a lovely party Mavis. Thank you – for everything.



John Matthews handing over to the new Milk Roundsman, Bob Bazeley.

John Matthews

Len Denton admitted that he had never made a retirement presentation before, as a crowd of well-wishers gathered in the R1 Foyer. 'Don't worry,' said Milk Roundsman John Matthews, 'I've never received one.'

Len went on to say that he had been one of John's customers for over 30 years. He would not like John's job-all that getting up early, but everyone at RAL had appreciated this reliable and friendly service. Len wondered how John had ever made a profit, since he did not worry very much

about collecting the money, but apparently John finds that his customers rarely vanish overnight leaving unpaid bills.

John was presented with a card signed by all his regular customers and was also told that there were two milk bottles that he had failed to collect. One of these contained a collection of loose change and the other a cheque from all his grateful customers. 'You are my friends, not customers,' said John 'and I will miss you all.

George Render

George Render is not one for wasting time, so at his retirement presentation on Thursday 13 June, the order of the day was – keep it short.

Trevor Hyman (ISIS Facility) thanked George for 30 years of sterling service to RAL as a first class craftsman who produced work of a very high standard. 'Many apprentices have cause to be grateful for your instructions', he said. 'Your

colleagues are loth to see you go, but we wish you a long and happy retirement.'

Gifts from his many friends of a fishing reel, binoculars and a strimmer/edger betoken the pursuits George has in mind for the future. As he is also an expert photographer, a keen gardener and a member of the 'Yorkshire Road Racers' (cycling), one does wonder how he ever managed to fit in work.



Notices

Thanks

Jan Smith would like to thank everyone who contributed to her leaving gifts. She has already used the turntable, pedestal and table cover for flower arranging. Jan says 'For the first time in my life I was lost for words! Sorry I didn't get round to see everyone before I left to thank them personally.'

Jim Pateman would like to thank all friends and colleagues for the walking stick, crossword book, drill and photograph album he received on his retirement.

Mavis Daley would like to say a very big thank you to all her friends and colleagues for the lovely cards, presents and flowers she received on her retirement.

Alan Hodges wishes to thank all his friends and colleagues for their support and friendship during his 33 years at the Lab and for the generous gifts and good wishes on his retirement and the beautiful basket of flowers for his wife, June. 'Keep Safe,' says Alan.

Nimrod Lectures

July 15

The Frascati phi factory project DAΦNE
R Baldini (Frascati)
Lectures are held at 2 pm in R61
Conference Room 3

Electronic Technology Seminars

July 12

'Microelectronic design at RAL'
Paul Sellar (RAL)

July 26

'Technological work of ROE'
Terry Lee (ROE)

These meetings are held at 10.00 am in
Conference Rooms 12 and 13 (R68).
Everyone welcome and coffee is served
beforehand.

RAL Christian Fellowship

July 4

Prayer Meeting

July 11

Report on Trip to Romania

July 18

Bible Study - Romans

July 25

Quiz

Meetings are held in Conference Room 6
(4th Floor in R2) at 12.30 pm every
Thursday. Visitors are always welcome.
Enquiries to John Hogston ext 5183.

La Soirée Francais

This ever popular event was held in the coffee lounge of the restaurant on Friday 26 April when about 40 people were present to enjoy an evenings entertainment provided by RAL students of French, under the direction of their teacher Madame Ferrandier Smith.

The first part of the Soirée was a revue, with sketches, card tricks and a recitation in French of 'The Owl and the Pussycat' by Tim Pett. The standard of French (and acting) was

so good that some of the audience thought there were French people in the cast!

During the interval French food and wine added to the evenings enjoyment. The second part of the evening included an impressive act by Peter Smith entitled 'Éperiences de mémoire, Volonté et de Psychologie'. Ian Duff finished the revue by reading, in both Scottish and French, the poem 'Tarbolton Lassies' by Robert Burns.



Civil Service Cricket Competition

The first round matches of the annual Civil Service Cricket Competition, the Curtis Bennet Cup, were held recently. The SERC team travelled to Bath for their game. The opposition was made up of players from all over the country including some all the way from Cornwall.

SERC batted first scored 152 runs for the loss of 8 wickets off their allotted 40 overs. Derek Howe from RAL was the top scorer with 46

runs. At tea everyone agreed that 152 was not really enough runs. The opposition started slowly and after 9 overs had only scored 19 runs but gradually they accelerated and the opening partnership was worth over 90. In the end as rain began to fall the SERC score was passed for the loss of only 3 wickets, but with only one over to spare. A solid performance by SERC, probably all that was lacking was a 'Botham' style innings when it mattered.

CERN Fellowship Programme

Applications are being invited for the CERN Fellowship Programme 1991-92.
For details and application forms contact:
Recruitment, Room 68 in R20,
ext 6604.

Film Badges

Period	From	To	Colour	Code
07	17.6.91	14.7.91	Brown	
08	15.7.91	11.8.91	Black	

RAL Lectures

July 11

'Three Years in the Foreign and Commonwealth Office'
Martin Evans (RAL)
R22 Lecture Theatre at 3pm.

Missing

Two Bosch 2-speed Drills, type 1199 (no serial number) and type GSR9, serial number 0601921927, a Bosch sander, serial number 603256942 and a circular saw, serial number 42367E, all from Karmen area. Please contact J Kleinfeller (ext 5669) or A G D Payne (ext 5431).