

22 MAY - 5 JUNE 1978

THE COUNCIL VISIT



CENTRAL LASER FACILITY: Dr M S White explains the neodymium-glass laser source to Professor W E J Farvis, Mr B Oakley and Mr D H Roberts.



COMPUTING: Professor G Allen, Dr M F Chiu and Mr P J Casey try out the new ICL 2904 computer.



1mm WAVELENGTH TELESCOPE:

Professor W E Burcham, Mr W Walkinshaw, Mr J B Visser, Professor J C Polkinghorne are given details of the new telescope project by Dr R E Hills (of Cambridge University)



NIMROD AND THE SNS: Dr N D West with Dr G H Stafford and Professor G Allen discuss the SNS project.

THE COUNCIL VISITS RUTHERFORD

The Science Research Council visited the Rutherford Laboratory on Wednesday 17 May. When the Council last visited in May 1973, the activities of the Rutherford Laboratory were almost entirely devoted to the service of the Nuclear Physics Board. Now the Laboratory provides support for all Boards of the SRC. A morning tour was arranged, in which various displays

highlighted a selection of the Laboratory's activities such as the Central Laser Facility, particle physics, research using neutron beams, the Spallation Neutron Source, various Engineering Board projects, energy projects, Astronomy Space and Radio Board projects, and computing. Many of these exhibits will be on display at the forthcoming Families Day on the afternoon of Saturday 10 June.

INTERNAL EVENTS

HEP SEMINAR
Wednesday 24 May
1100
R61 Conference Room

Spontaneous Breakdown of Supersymmetries

P Higgs/Edinburgh

SPECIAL NIMROD LECTURE
Thursday 25 May
1400
Lecture Theatre

A Tuneable Electromagnetic Detector for Gravitational Waves

Dr E Picasso/CERN

RUTHERFORD LABORATORY LECTURE
Thursday 25 May
1530
Lecture Theatre

The Benefits and Problems of Genetic Engineering

Dr T Vickers/Medical Research Council

RUTHERFORD LABORATORY LECTURE
Thursday 1 June
15.15
Lecture Theatre

Becoming a Scientist

*Professor L R B Elton/Institute for Educational Technology,
University of Surrey*

THE BENEFITS AND PROBLEMS OF GENETIC ENGINEERING

Abstract

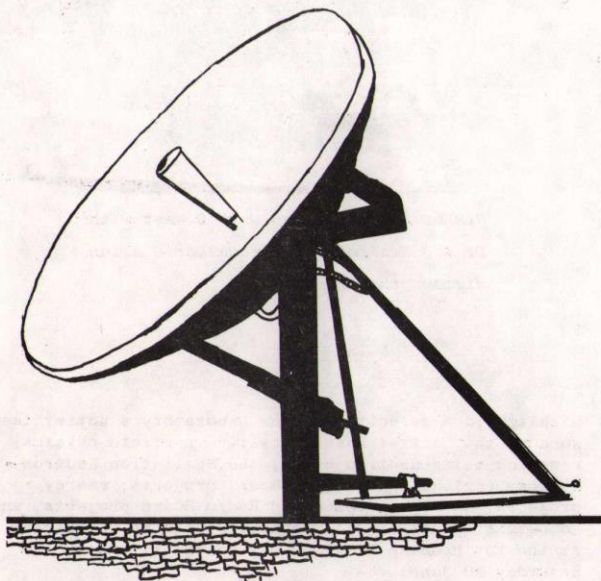
Dr Vickers plans to review the present balance, after 4 years of debate, between the benefits (some of which are now hard achievement) and the conjectured hazards (many of which now seem fanciful) of techniques of genetic manipulation. The exercise should be timely since the first report of the Genetic Manipulation Advisory Group will be published on 19 May. He hopes to compare what has happened with the very different history of radiological protection and to consider what can be learned from both about unrestrictive strategies to deal with the hazards of innovation.

BECOMING A SCIENTIST

Professor Elton intends to raise the question as to how far the traditional science degree course is an appropriate preparation for practising scientists and the kind of modifications which might make it more appropriate.

The meeting will take the form of an "interactive lecture" in which the audience will have opportunities to participate actively.

Professor Elton intends to raise the question as to



IT'S OUT OF THIS WORLD !

SUCCESSFUL LAUNCH OF THE O T S

The European Orbital Test Satellite (OTS) was successfully launched from Cape Canaveral at midnight on Thursday 11 May. You may remember last September (see Bulletin 18, 1977) that an earlier rocket and test satellite were destroyed in the air less than one minute after take-off. However, the present attempt was completely successful and the apogee motor was fired to bring the OTS "onto station" over the equator at about 11° east of Greenwich in a stationary orbit.

The European Space Agency (ESA) control centre at Darmstadt has taken over control of the satellite and reported that all the telemetry systems are functioning correctly. The performance of the solar panels and the rest of the equipment will be checked out by ESA over the next six months prior to handing over to the European telecommunication authorities.

The satellite is the first step in a programme to develop a new European telecommunications network for the 1980s. The ESA has prepared the satellite and over 50 European institutes, universities and telecommunication authorities are involved in various experiments to test the performance and reliability of the new equipment.

STELLA Gets Underway

One of the experiments is to set up a high-speed data link between the Rutherford Laboratory, DESY, Saclay, Pisa and CERN in close collaboration with the telecommunication authorities in each country. The experiment is called STELLA (Satellite Transmission Experiment Linking Laboratories) and aims at sending data between ground stations at speeds comparable to the processing speeds of the computers themselves and at extremely low error rates. The Department of Industry is funding a small ground station at the Rutherford Laboratory consisting of a 3m diameter reflector ("dish") linked to an existing GEC 4080 computer.

The dish is being built by Marconi Communication Systems Ltd and will be installed on top of building R27 in about a year's time. The receiver is a high performance antenna of the conventional Cassegrain configuration and supported by a simple mount which can be pointed in the direction of the satellite. The links will be used to transfer data between the home laboratories of teams involved in international high-energy physics experiments. Hence the Rutherford Laboratory will be making a useful contribution both in scientific research and towards the development of a European communications system for the next decade.

(We thank Chris Adams and John Burren for the news contained in this report)

EXTERNAL EVENTS

THEORETICAL PHYSICS SEMINAR/QMC - 1615 hrs

5 June: Prof M A Moore/Manchester - Spin Glass

THEORY GROUP SEMINAR/DARESURY LABORATORY - 1400 hrs

22 May: Dr A Brown/Oxf - Shell Model Descriptions of Coulomb Displacement Energies and Charge Dependent Matrix Elements in the $F 7/2$ Shell.

SPECIAL LECTURE/MANCHESTER UNIV - 1100-1400 hrs

22 May: E Picasso/CERN - G-2 of the Electron and Muon "Why and How?" These lectures at graduate student level will be held in the Niels Bohr Common Room.

NUCLEAR STRUCTURE SEMINARS/OXFORD 1430 hrs

22 May: Prof K Krane/Oregon State University - Experiments with the Lampf Muon Channel.

12 June: Mr H R McK Hyder/Nuclear Physics Laboratory - The Folded Tandem.

ELEMENTARY PARTICLE THEORY SEMINAR/OXFORD - 1430 hrs

26 May: Dr C Sachrajda/CERN - Parton Model Ideas and QCD

THEORETICAL PHYSICS SEMINAR/MANCHESTER UNIV - 1430 hrs

24 May: Dr A Brown/Oxf - Empirical Single Particle Matrix Elements in the sd-Shell Deduced from Magnetic Moments and Gamow-Teller Beta Decays.

31 May: Dr M Harvey/AECL Chalk River - Effective Interactions and Operators in Nuclei.

7 June: Miss E Proctor/Manchester - Effects of Anharmonicities on Chemical Reactions.

14 June: Prof M Moore/Manchester - Spin Glass (at 1615 hrs)

THEORETICAL PHYSICS SEMINAR/CLARENDON LAB OXF - 1615 hrs

25 May: Dr D Wallace/Southampton - Tunnelling Phenomena in Quantum and Statistical Physics.

1 June: Dr M Berry/Bristol - Focussing and Twinkling Catastrophes and Diffractals.

8 June: Dr D Olive/Imperial - Solitons and Gauge Theories.

15 June: Dr D M Brink - Path Integral Methods for Nuclear Reactions.

HEP SEMINAR/DAMPT /CAMBRIDGE - 1500 hrs

25 May: Dr C Sachrajda/CERN - Parton Model and QCD.

8 June: Dr F Foster/Lancaster - $\gamma\text{-}\gamma$ Experiments at Petra Energies.

THEORETICAL PHYSICS SEMINARS/SOUTHAMPTON UNIV 1430 hrs

26 May: Prof M A Moore/Manchester - Spin Glass.

2 June: H F Jones/Imperial College UK - Coincidences and Production of Charm in Hadronic Collisions at Large P_T .

23 June: K Konishi/Rutherford Lab - Various Aspects of the Topological Expansion.

THEORETICAL PHYSICS SEMINAR/AERE CONF RM BLDG 8-9 1400 hrs

23 May: Dr P Hutchinson/E Sc D - The Ice Project.

6 June: Dr A Temple/TPD - The Role of Theory and Modelling in Ultrasonic Testing.

HIGH ENERGY PHYSICS SEMINAR/MANCHESTER UNIV - 1415 hrs

30 May: L C Y Lee/Daresbury - Photoproduction of Charged Rho Mesons.



RETIREMENT, ITS PROBLEMS - AND CONSOLATIONS

It is difficult, in a few words, to express my sincere

thanks for the parting gifts of a garden seat and cheque, the splendid farewell barbecue party, the Special Edition of the Bulletin containing so many kind messages from colleagues past and present (and the incredible Phil Crane cartoon), letters and cards.

The host of friends who will be visiting me (with their garden forks) will find that the garden seat is very comfortable, being especially kind to aching backs.

That so much planning and scheming went unobserved still astonishes me. However the only "unexploded avenue" I have discovered is my great fortune in having so many good friends, the greatest gift of all - Harry Norris

Photo: Harry on his country seat, with young fans!

SALES TO EMPLOYEES Sales of Scrap metal/plastics as set out in RLN 12/75 will be made on Friday 26 May.

CHRISTIAN FELLOWSHIP All members of staff are warmly invited to attend the

following meetings:

2 June: Christians believe that God does hear and answer prayer. If you have a request please contact any member of the Fellowship and we will include it during our prayer-meeting.

9 June: Bible Study.

Both meetings to be held in the R2 Conference Room (Top Floor).

OVERSEAS VISITS Dr J C Thompson to CERN, 21-26 May to work on experiment NA2.

Drs A F Gibson and M S White to the USA, 22 May - 2 June, to attend 10th Int Quantum Electronics Conference.

Dr M A R Kemp to CERN, 22 May - 9 June, to work on experiment WA4.

Drs W Cameron and G E Kalmus to CERN, 24 May - 6 June, to work on experiment WA30.

Dr L C W Hobbs to ILL, 25-26 May, to attend ILL Steering Committee meeting.

Mr K W Bell to DESY, 25 May - 13 June, for programming on TASSO experiment.

Messrs J R Batley, S M Fisher and Dr C N P Gee to Poland, 28 May - 10 June, to attend CERN School of Computing.

Dr J G V Guy to CERN, 29 May - 9 June, to work on experiments WA24 and WA30.

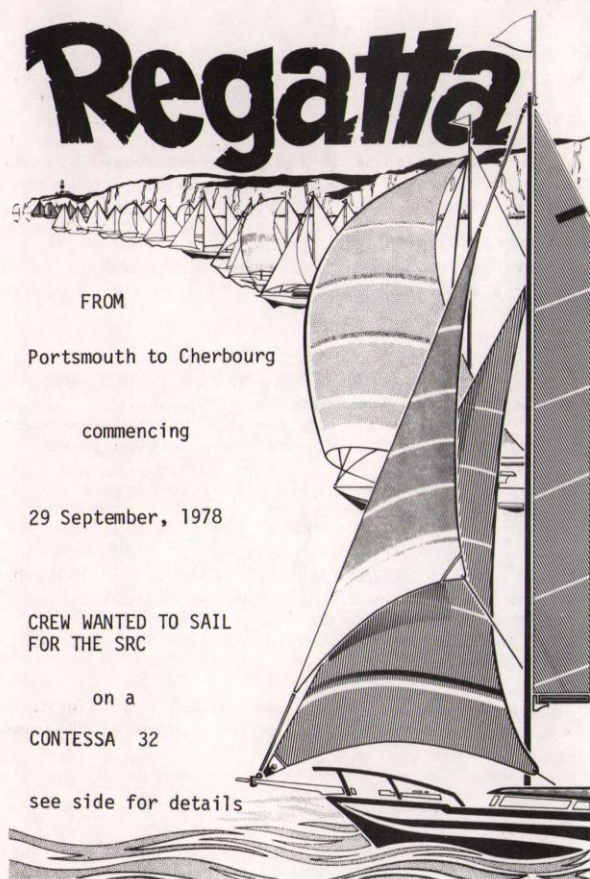
Mr T J L Jones to ILL, 31 May - 2 June, to attend workshop on the application of intense gamma-ray sources.

Mr G L Greene to ILL, 2-30 June, to work on spin rotation experiment.

Dr W G Williams to ILL, 4-8 June, to attend Int. Workshop on Neutron Interferometry.

Drs R C Brown and J Carr to the Netherlands, 4-17 June, to attend CERN School of Physics.

Regatta



FROM

Portsmouth to Cherbourg

commencing

29 September, 1978

CREW WANTED TO SAIL
FOR THE SRC

on a

CONTESSA 32

see side for details

FILM BADGE NOTICE It is Period 6. Colour strip
PURPLE for 8y films and neutron
packs. Please change your films promptly and return old
ones.

SAIL FOR THE SRC!

This is a call for crew to represent the SRC in the 1978 Interdepartmental Offshore Race. The race is organised by the Civil Service Sailing Association and will be from Portsmouth to Cherbourg, weather permitting, starting on 29 September. In the event of bad weather, alternative courses will be sailed in the Solent area. The SRC have been lucky enough to charter a Contessa 32 which is well equipped for racing, for the period commencing at 1830 on Sunday 24 September to 1800 on Sunday 1 October.

Will those wishing to crew please write giving details of their sailing experience to Martin Hall, Appleton Laboratory, Ditton Park, Slough, SL3 9JX, Berks, before 20 May.



At
Cosener's House

*
Friday 7 July
8.00 pm - 1.00 am

with
Disco & Licensed Bar

Price - £3.50 per person

Tickets limited
so apply now to:

Pat Junkison Ext 423
Kay Knight Ext 6603
Lee Cooke Ext 443



A GOLF SECTION ?



That's right!

At a recent meeting of some 19 golfers it was decided that there was sufficient interest within the Laboratory to form a Golf Section. A committee has now been elected, comprising of the following:

Chairman - Mr B Parkinson

Secretary - Mrs S A Fones

Treasurer - Mr K G Louch and two other members,

Mr D B Falconer and Mr P E Gear. Membership of the section is open to all current members of the Rutherford Laboratory Recreation Society and applications to join should be made to any of the above committee members.

The basic aim of the section is to promote interest and enthusiasm. There will be no subscriptions.

The first event being organised by the new Golf Section is the 1978 SRC Golf Tourney, which will be held at Calcot Park near Reading on Friday 2 June, morning tee-off from 0800 hours, afternoon tee-off from 1300 hours.

The committee would be pleased to hear from prospective members who would like to represent Rutherford in this event. People who would like to help in running of the Tourney (and at the same time see some very entertaining golf!) would also be very welcome.

Players and nominated helpers would be eligible to concessions under the rules applying to SRC sporting activities namely a day off and travel subsistence.

RUTHERFORD LABORATORY BULLETIN

Acting Editor John Litt

Please mail or phone-in contributions to:

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Abingdon (0235) 21900 Ext 484

Deadline for Insertions

1000 hours Wednesday, 31 May

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