

25 April - 9 May 1977

Council Approves SNS

I thought that all members of the Laboratory would be pleased to know that at the meeting of the Science Research Council which was held on Wednesday, 20 April, the construction of the Spallation Neutron Source was formally approved. It was also agreed that DES approval should be sought immediately.



Director

Visit of RL Establishment Committee

Last June the Science Research Council approved terms of reference for the new Establishment Committees.

For the Rutherford Laboratory Establishment Committee (RLEC), these include an annual report to the Council based on a report from the Director; advice to the Chairman of the Council (and the appropriate Boards) on resources required to carry out approved and proposed programmes; the exercise of Council delegated financial powers of approval and finally, advice to the Director on matters affecting the running of the Laboratory and its interaction with the scientific community in carrying out SRC approved programmes.

The RLEC, which will be visiting the Rutherford Laboratory four times a year, held its first meeting here

on Friday 15 April; during the day Committee members also toured the Nimrod complex. On each future visit, the RLEC will hold a meeting and tour a different part of the Lab; during these tours Committee members hope to meet RL staff at their work as much as possible.

The present membership is as follows:-

Dr A J Kennedy (British Non-Ferrous Metals Technology Centre) Chairman, Professor G Allen and Professor D J Bradley (Imperial College of Science and Technology), Professor A G J MacFarlane and Professor J C Polkinghorne (Cambridge University), Dr B E F Fender (Oxford University), Professor P T Matthews (Bath University), Professor E W J Mitchell (Reading University) and Professor R Wilson (University College London).



Photo - Dr L C W Hobbis describes the SNS proposal to the committee members. Standing (1 to r), Dr Kennedy, Dr G H Stafford (RL Director), Prof Matthews, Mr P B Nichols (Asst Sec), Mr R G Russell (RL - guide), Dr J M Valentine (Secretary to the RLEC), Dr Fender, Dr J J Thresher (RL - guide). Seated (1 to r), Prof Mitchell, Mr A J Egginton (representing LO), Prof Bradley, Prof Wilson and Dr G Manning (RL - Deputy Director). Professors Allen, MacFarlane and Polkinghorne did not attend.

INTERNAL EVENTS

NIMROD LECTURE SERIES

HEP SEMINAR

Wednesday 27 April
1100
R61 Conference Room

The lecture arranged for 25 April has been postponed until 29 April

K⁻p Interactions at 4 GeV/c in the CERN 2m. Bubble Chamber

P Grossman/Oxford University

SPECIAL LECTURE

Wednesday 27 April
1130
Lecture Theatre

Very Fast Photo Detectors (Photo-multiplier Tubes, Photo-diodes and Channel Plate Multipliers).

J P Boutot/LEP Laboratories, France

HEP DATA HANDLING GROUP SEMINAR

Wednesday 27 April
1330
R61 Conference Room

PASCAL : A Language for the Production of Reliable Software

Chris Cooper/RL

Much research effort over the last few years has been devoted to the study of the methodology for the production of reliable software systems. Following a brief survey of the recognized prerequisites for achieving reliability, I shall give an informal description of the principle features of PASCAL and then endeavour to show how this Language represents a significant advance in reliable software technology.

ERSU SEMINAR

Wednesday 27 April
1400
Lecture Theatre

Some Innovations in Combustion Techniques

Professor F J Weinberg/Imperial College, London.

NIMROD LECTURE SERIES

Friday 29 April
1130
Lecture Theatre

Physics in the 30" FNAL Hybrid Spectrometer

R Plano/Rutgers - CERN

NIMROD LECTURE SERIES

Monday 2 May
1130
Lecture Theatre

Recent Results from PLUTO

R Deverish/DORIS

HEP SEMINAR

Wednesday 4 May
1100
R61 Conference Room

A Review of the Nucleon-Nucleon Interaction

A D Jackson/Stony Brook & Copenhagen

NIMROD LECTURE SERIES

Monday 9 May
1130
Lecture Theatre

Charm and Apres Charm

J Ellis/CERN

PERIODIC SAFETY TEST OF PORTABLE ELECTRICAL EQUIPMENT

The test carried out during February/March has now been completed. The current marker colour is MAROON and is marked "Do not use after July 1977".

Portable electrical equipment marked otherwise or has no marker should be considered unsafe and must not be used. All such items should be returned, if possible, to Electrical Services Section, Building R18. Alternatively ring A Hipwell on Ext 573.

A 'KEY' QUESTION

A 'STAFFORD' safe, believed to have been used in the 15 MeV

Injector Room in the early 'commissioning days' for the storage of precious metal foils, has for many years been lying unwanted and unloved in Bldg R52.

It is now required as a fireproof storage for Beryllium target materials. However, exhaustive enquiries have so far failed to find the official 'owner' of the safe - much less the custodian of the keys.

Someone, somewhere must know of the existence of this safe, in fact any clues at all would be welcomed by Mr D Collingwood R2 Ext 205 or Mr D Falconer R2, Ext 499.

OVERSEAS VISITS

Mr D A Gray, to CERN, 24-26 April, to attend ECAS meeting.

Mr R C Hack, to Paris, 24-30 April to attend 4th International Congress of the International Radiation Protection Association. Dr A D Taylor, to ILL, 24 April - 3 May, to work on approved experiment.

Dr P A Machin, to ILL, 25-28 April, for discussions with Dr R E Rimmer et. al.

The Director, to CERN, 25-29 April, to attend meetings of CERN Scientific Policy Committee, CERN Finance Committee and CERN Committee of Council.

Dr R A Ringland, to Cracow, 25-29 April, to attend Cracow/Munich Seminar and give lecture.

Dr T G Walker, to the USSR, 25 April - 13 May, to visit Leningrad Nuclear Physics Institute.

Dr J B Forsyth, to ILL, 28 April - 16 May, to carry out approved experiment.

Mr N M King, to CERN, 6-12 May, to attend CERN SPS Inauguration Ceremonies and for discussion on Heavy Ion Fusion and Accelerator Topics.

Messrs H O Normington, A G Dobbs, H G V Hawthorne and W Russett, to CERN, 9-27 May, for installation work on WA 11.

RLEC Visit cont.



Photo (l) The Director discusses a point with Professor Bradley who is the Chairman of the Laser Facilities Committee.



Photo (r) Dr Kennedy with a three handed (?) John Thresher: Leo Hobbs and Professor Wilson follow closely behind.

ENERGETIC SEMINARS? Our Energy Research Support Unit, (ERSU), is arranging a series of Seminars on topics of interest to those working in the field of Energy.

The intention is to hold about eight or nine a year (roughly one a month excluding holiday periods). The Seminars will generally start at 1400 hours, break for coffee at 15.15 hours and continue with a discussion period which one understands, can last as long as people are interested and the lecturer can stay.

The Seminars are, to a large extent, intended for internal consumption and anyone interested in the subject is welcome to attend.

The first in this new series, entitled "Some

innovations in Combustion Techniques", is to be given by Professor F J Weinberg, Imperial College, London, at 1400 hours on Wednesday, 27 April in the Lecture Theatre.

We understand that Prof Weinberg has invented a novel form of combustor which he deems is capable of burning the exhaust ventilation air from a coal mine to produce enough power to run said coal mine.

The second in the series, on 30 May is to be given by Professor P O'Sullivan. The title he has chosen, "The environmental myth - so far and no further", is intriguing. We shall have more to say about this lecture in the appropriate Bulletin.

EXTERNAL EVENTS

THEORETICAL PHYSICS SEMINARS/CLARENDON LAB, OXF - 1615 hrs

- 28 Apr: Dr J Leveille/IC - Asymptotic estimates in perturbation theory.
- 5 May: Prof A Glassgold/NYU - Interstellar molecules: physical & astrophysical problems.

ELEMENTARY PARTICLE THEORY SEMINAR/NP DEPT OXF - 1430 hrs

- 29 Apr: Prof A Donnachie/Manchester - Radiative decays and SU(4)

ELEMENTARY PARTICLE PHYSICS SEMINARS/NP LAB, OXF - 1430 hrs

- 28 Apr: Prof R J Plano/Rutgers - CERN, - Physics with the FNAL hybrid spectrometer
- 5 May: Prof V L Telegdi/ETH Zurich - K_s regeneration at FNAL energies - an interplay of particle and nuclear physics.
- 6 May: Prof Telegdi (at lll5) - Second class currents today.
- 6 May: Dr A Jackson/Nordita - Our knowledge of the nucleon-nucleon force.

HEP SEMINARS/CAMB U, SEMINAR ROOM A - 1500 hrs

- 28 Apr: J D Jackson/Berkeley, CERN - Charm theory: successes and problems.
- 5 May: R Cashmore/Oxf - e^+e^- physics at PETRA and beyond.

HEP SEMINARS/CAMB U SEMINAR ROOM B - 1500 hrs

- 27 Apr: M Pennington/CERN - Phase shift ambiguities: how imposing analyticity on $\pi\pi$ phase shift analysis can reveal new solutions, explore experimental structures, and even expose new resonances.
- 4 May: K Konishi/RL - Recent developments in dual unitarization - baryons.

THEORETICAL PHYSICS SEMINARS AT QMC - 1615 hrs

- 2 May: Prof J Patl/Maryland & IC - Quarks and leptons.
- 9 May: Dr D Sherrington/IC - Effects of strong spacial disorder in magnetism.

THEORETICAL PHYSICS SEMINARS/MANCHESTER UNIV - 1430 hrs

- 27 Apr: Prof T Brady/Mexico, Oxf - The foundations of quantum mechanics.
- 4 May: Dr A D Bruce/Edinburgh - Structural phase transitions, critical phenomena and the renormalisation group.

HEP SEMINARS/MANCHESTER UNIV - 1415 hrs

- 28 Apr: T Quirk/Oxf - Muon scattering at Fermi-Lab energies.
- 5 May: J Randa/Manchester - SU(4), the OZI rule, vector dominance and meson decays.

THEORETICAL & HEP SEMINARS AT SOUTHAMPTON - 1430 Hrs

- 29 Apr: Prof J Patl/IC - Unification - liberation of quarks and leptons.
- 5 May: Dr R Davis/Durham - Bags (at 1245 hrs).

THEOR PHYS SEMINARS/AERE, CONF RM, BLDG 8.9 - 1415 hrs

- 29 Apr: Dr C F Clement/TP - Material transport in nuclear fuel elements.
- 6 May: Prof L Falicov/Berkeley - Electronic properties of transition metal oxides.

NUCL PHYS DIV COLLOQUIA/AERE, CONF RM, H8 - 1530 hrs

- 28 Apr: Dr R Arnold/RL & Argonne - HEATHFIRE - ion beam fusion at Argonne (ANL).
- 5 May: Dr C J Sofield/NP Div - The role of charge exchange in heavy ion straggling.

PREPARING LAB REPORTS A scientific report is one of the major means of communication of any Laboratory, and as such provides standards by which the Laboratory is judged. As well as scientific merit, quality and appearance of the Report are also important - a badly presented document does little to encourage readers.

A booklet, RL 76 115/C, has been produced to inform people of the system now in use at the Rutherford Lab of producing cost effective reports to suit a variety of requirements and source materials.

A reduced format for most reports has been adopted; this is the landscape format in which two pages of text is reduced photographically to fit side by side on a sideways A4 page. Although not to everyone's taste, it does have the important advantage of not requiring any great change in the way text is prepared for reproduction. All that is called for is the use of the new single A4 typing guides (available from Reproduction Section) which ensures text dimensions of $6\frac{1}{4}" \times 9\frac{1}{2}"$.

Rutherford Laboratory reports are usually printed in quantities to cover authors requirements plus, in many cases, some 350 extra copies for the Library exchange distribution; work sheets enable authors to control circulation of reports sent outside the Laboratory. These reports are given the characteristic Rutherford blue covers for practical reason of protecting the pages and to improve their appearance on shelves.

These reports which are circulated internationally are a major vehicle for presenting the work of the Rutherford Laboratory to the wider international community. There is also another requirement and this is the report, note or memo, unlikely to be of interest on a world-wide basis, but nevertheless, a valuable source of information within the Laboratory. It might refer to a workshop technique or an idea in design that the originator might shrink from writing-up for a blue

cover job but is often of great value to colleagues and others in his field. In order to provide an outlet for this kind of material authors may have their typescripts produced in normal A4 non-reduced form - (the typescript does not have to be of the best quality as for reduced format) - sufficient copies being produced for the author's use together with a copy to be kept in the library. Because this latter is a much more informal document and in the main is intended for local use, it would not normally be produced with blue covers. Most importantly these "internal" reports should have an RL report number so that they can be properly catalogued and the name of the title circulated in the library accessions list. In order to distinguish between these two formats they have been designated A and B formats and authors are requested not to use B format as a way of avoiding taking a little extra trouble with the preparation of copy necessary with the reduction process.

Summarising, Laboratory reports and publications can be printed in a number of formats depending on the purpose for which they are to be used.

They are:-

- A Two-up format on sideways A4-size paper with special covers, for external distribution
- B Upright A4 paper, no covers, for internal reports
- C Special, Manuals, conference proceedings, monographs etc

Please remember format A is the normal RL report format; format B is intended for internal circulation. It is important to have as accurate a record as possible of all material circulated from the Laboratory and everyone who is responsible for originating such material is urged to obtain an RL number and to have the title recorded by the library. The library will also handle requests from outside for future copies of reports in all formats.

FILM BADGE NOTICE Period 5 commenced Monday, 18 April. Colour Strip - PURPLE for 8y films and neutron packs. Please change your films promptly and return ALL old ones. Six monthly dosimeter change for people with surnames commencing Q, R, S & T.

SACKCLOTH & ASHES The back page of Bulletin No 7 contained a letter of thanks. The Editor regrets the omission of a signature; also regretted, the number of telephone calls he had to answer!

The 'Bill' in question is Mr W Burrells.

A WINE EVENT The Horticultural Society's next evening lecture will take the form of an instructive but entertaining talk and demonstration on the noble art of wine making in the home. This, of course is nothing to do with growing things in your gardens but rather how to use some of the produce (even some weeds) of your gardens.

The speakers will be Mr E H Aldworth and Mr B H Bristol, members of the Drayton Wine Circle; they will also give free advice and comment on any samples of your handiwork that you may care to bring along (remember to bring a glass unless it is your custom to swig straight from the bottle).

The lecture is at 1930 hours on Thursday 28 April in the Lecture Theatre, tickets 25p (members will receive two free raffle tickets if they produce their membership card).

All are welcome to attend and if you have any problems with transport, contact the Society's Secretary, Lorna Caine on 72-2754.

CRICKET NEWS The Rutherford Cricket Club has been reformed (I am reliably advised that the term 'reformed' applies solely to the Club and not to the members - Ed) and that fixtures are well in hand. We hope to publish a list of these shortly but in the meantime, the club, although able to field an eleven for the first game on the 10th May, welcomes new members. Practice sessions are held most lunch times (if fine) at the nets on the new sports field, starting about 12.15. Anyone interested should contact Mike Butler Ext 6175 or Des Rowland Ext 6144.

CHRISTIAN FELLOWSHIP Friday 22 April: Ness Wilson leads on Chapter 2, verses 16-19 of Pauls Epistle to the Colossians.

Friday 29 April: 'What News?' What is the Lord Jesus Christ doing today amongst his people? Contributions from various members of the Fellowship. All are welcome to these meetings which commence at 12.30 in the R12 Conference Room.

FOR SALE Following the purchase of a new table, the Table Tennis Club have decided to sell their oldest table. This was hand-made some time ago, but is still usable and is solidly built.

Any member of the Laboratory interested in buying this table is asked to send a bid to the Secretary (Eric Thomas, X6219, Atlas) by 18 May. These bids will be opened together, and the table will go to the highest bidder; however, a reserve price has been set, and failure to meet this will lead to the table being offered outside the Laboratory.

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Editor: H F NORRIS
Room 42 Building R20
Rutherford Laboratory
Chilton Didcot Oxon OX11 0QX
Abingdon (0235) 21900 Ext 484