

# RUTHERFORD LABORATORY BULLETIN

No. 30/64 for the week commencing Monday, 10th August, 1964

VISITORS. About 30 overseas technicians from Ecko Electronics will visit the Laboratory on Tuesday, 11th August.

VISITS ABROAD. Mr. A. Jones and Mr. M. S. Dykes left on 6th and 10th August respectively, for C.E.R.N., where they will be attached to the British National Hydrogen Bubble Chamber team.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
11th-16th Aug.	R.H.E.L. and Queen Mary College	Study of (p,n) Reaction by Time of Flight Method

MISSING EQUIPMENT. Would anyone who knows the whereabouts of the following item, please inform Mr. W. B. Marsh, Ext.365, or Mr. D. R. Perry, Ext.405, Building R.20:-

Fast Neutron Monitor, Type NE046, Serial No. C047.

FILM PROGRAMME. A programme of short films will be shown in the Lecture Theatre on Tuesday, 11th August at 8.00 p.m. Tickets will be sent to all those who replied to the circular about the films. A few extra tickets may be available from H. F. Norris, Building R.20, Ext.484.

EUROPEAN ATOMIC ENERGY COMMUNITY - FELLOWSHIPS FOR VISITING SCIENTISTS. The Commission of the European Atomic Energy Community proposes to admit scientists to its Joint Research Centre establishments and also to the scientific teams of certain of the Commission's associates or contractors. Further information may be obtained from H. F. Norris, Building R.20, Ext.484.

POST GRADUATE EDUCATION CENTRE, A.E.R.E. From the date of this issue all applications for P.G.E.C. courses should be made through Division Heads to Mrs. M. C. Gould, Personnel Branch, Building R.20, Ext.575.

Scientific Administration,  
Building R.20.

7th August, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 31/64 for the week commencing Monday, 17th August, 1964

VISITS ABROAD. Mr. A.P. Banford of the P.L.A. Accelerator Physics Group will visit the U.S.A. from 17th August to 2nd September. He will present a paper at the Cryogenic Engineering Conference, Philadelphia and will also be visiting the Lindé research laboratories, Brookhaven & Argonne National Laboratories.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
17th Aug.	R.H.E.L. and Queen Mary College	Study of (p,n) Reaction by Time of Flight Method
22nd Aug.	R.H.E.L.	Accelerator Physics
23rd Aug.	A.E.R.E.	Differential Proton Scattering Cross-Sections using the $N_2^1$ Analysing Magnet.

PHYSICAL REVIEW LETTERS. A new policy on the selection of letters for publication has been adopted by Physical Review Letters. Details of the new policy, which at present affects only letters on experimental high energy physics, are given in Vol. 13, No.3, of the periodical.

EXTERNAL COURSES. The following courses will be held at the Borough Polytechnic, London, S.E.1 during the 1964-65 session:-

Nucleonic Circuitry - eleven evening lectures commencing 30th Sept.

Nucleonic Techniques and Measurements - full time courses or part time day and evening course commencing early Oct.

Radiological Protection - part time course commencing 6th Oct.

Electronics at Low Temperature - seven evening lectures commencing 6th Oct.

Introduction to the Theory and Application of Transistors - twelve lectures commencing Tuesday 29th Sept. or Wed. 30th Sept. for evenings or afternoons respectively.

Basic Transistor Measurements - ten meetings commencing 14th Oct. mornings but also repeated same evening.

Transistors and Allied Devices - afternoons or evenings, commencing 29th Sept.

Further details may be obtained from Mrs. M.C. Gould, Personnel Branch, Building R.20, Ext. 575.

FORTHCOMING EXTERNAL EVENTS. The 126th Annual Meeting of the British Association for the Advancement of Science, will be held at Southampton, from 26th Aug.-2nd Sept.

The 3rd International Conference on the Peaceful Uses of Atomic Energy, will be held at Geneva from 31st Aug. to 9th Sept.

Scientific Administration,

Building R.20.

14th August, 1964.



# RUTHERFORD LABORATORY BULLETIN

No. 32/64 for the week commencing Monday, 24th August, 1964

VISITORS. Dr. Sulamith Goldhaber of the Lawrence Radiation Laboratory, Berkeley, will visit the Laboratory on 28th and 29th August. Anyone wishing to meet her should contact Dr. A. Kemp, Building R.1, Ext.218.

A party of members of the British Association for the Advancement of Science will visit the Laboratory on Monday, 31st August.

VISITS ABROAD. Mr. G. H. Rees will visit Princeton University, U.S.A., for three weeks from 23rd August, at the invitation of Professors M. G. White and F. C. Shoemaker.

Mr. M. Snowden and Mr. R. Lawes, to C.E.R.N., 26th-28th August, in connection with the British National Hydrogen Bubble Chamber.

Dr. N. H. Lipman and Dr. T. G. Walker to Eryx, Sicily on 26th August, for two weeks, where they will attend the Summer School on Symmetries in Elementary Particle Physics.

Mr. L. B. Mullett to C.E.R.N., from 30th August-1st September.

Dr. J. M. Valentine will represent the Institute at the 3rd International Conference on the Peaceful Uses of Atomic Energy, to be held at Geneva from 31st August-9th September.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
23rd-30th Aug.	A.E.R.E.	Sn (p,d) Cross-Section Measurement using the $N_2$ Analysing Magnet.

## EVENTS AT A.E.R.E.

Wed. 26th Aug., 2 p.m., Conf. Rm. Bldg.8.9	Theor. Phys. Seminar	Prof. G. Benedek (M.I.T.)	Inelastic Scattering of Photons by Thermo Photons
Thurs., 27th Aug., 2 p.m., Conf. Rm. Bldg.8.9	Theor. Phys. Seminar	Prof. T. Sasakawa (Kyoto University)	New Perturbation Method in Quantum Mechanics

Film: "Handle with Care" (a 20 minute IAEA/AECL film about a contamination incident in a radioisotope laboratory). Cockcroft Hall, Tues., 25th Aug., 1.00 and 1.30 p.m.  
Thurs. 27th Aug., 2.15 p.m. (Outer gate open, inner gate manned).

Scientific Administration  
Building R.20.

21st August, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 33/64 for the week commencing Monday, 31st August, 1964

VISITORS. A party of members of the British Association for the Advancement of Science will visit the Laboratory on Monday, 31st August.

Dr. W. H. Barkas of the Lawrence Radiation Laboratory, Berkeley, will visit the Laboratory on ~~Thursday, 3rd September~~ <sup>Wed. 2nd Sept.</sup> for discussions with Dr. W. S. C. Williams of the Nuclear Physics Laboratory, Oxford.

Members of the Electronics Division A.E.R.E. will visit the Laboratory on the afternoon of ~~Tuesday, 2nd September.~~ <sup>Wed.</sup>

VISITS ABROAD. Dr. K. D. Srivastava will visit Emile Haefley & Co. Ltd., Basle, Switzerland, from 31st Aug.-1st Sept., for discussions on high voltage power supplies.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
4th-6th Sept.	Oxford Univ.	$B^{10}$ (p,2n) $C^9$ Reaction Studies.

ALEXANDRA ROSE DAY. A letter of thanks has been received for the Alexandra Rose Day collection. The amount contributed from the Rutherford and Atlas Laboratories was £17.8.9., an increase of 50% over last year.

MISSING EQUIPMENT. Will anyone having the following Unit among their electronic equipment, please contact Mr. J. G. Cuninghame, Bldg. R.34, Ext.531 -

Coincidence Unit, Type 2013A, Ser./No. 28.

Scientific Administration  
Building R.20.

28th August, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 34/64 for the week commencing Monday, 7th September, 1964

VISITORS. A party of University Engineering Staff will visit the Laboratory on Wednesday, 9th September.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
7th-14th Sept.	A.E.R.E.	Elastic Scattering at 50 MeV.

The Harkness Fellowships of the Commonwealth Fund - New York Awards from the U.K. 1965. Details of these awards may be obtained from Mr. A. G. Taylor, Personnel Branch, Building R.20, Ext.495. Application forms can be obtained from the Warden, Harkness House, 38 Upper Brook Street, London W.1. The closing date for applications is Thursday, 12th November, 1964.

A.E.R.E. Film Society. Tickets for the current season of the A.E.R.E. Film Society are now available. They may be obtained from Miss J. E. Robertson, Building R.1, or Mr. T. R. Walsh, Building R.20.

A.E.R.E. Isotope School. The programme of courses for 1965 is now available. Enquiries to H. F. Norris, Scientific Administration, Building R.20, Ext.484.

CONFERENCES. The Institute of Physics and the Physical Society have arranged the following conferences during 1964-65.

- 22nd - 24th September : "Many Body Problems", at the University of Manchester.
- 23rd - 25th September : "Fundamental Problems of Low Pressure Measurement", at N.P.L. Teddington.
- 1st - 2nd October : "Electron Emission", at the University of Keele.
- 12th - 13th November : "Accuracy in X-Ray Analysis" at the Institution of Mechanical Engineers, London S.W.1.
- 5th - 8th January : "Solid State Physics", at the University of Bristol.
- 30th March/1st April : "Non Conventional Electron Microscopy" at Cambridge.
- 5th - 7th April : "Elementary Particles", at the University of Birmingham.
- 5th - 8th April : "High Energy Physics", at Birmingham.

(Further details may be obtained from Scientific Administration, Room 21, Building R.20, Ext.484 or 6297).

Scientific Administration  
Building R.20

4th September, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 35/64 for the week commencing Monday, 14th September, 1964

THE NIMROD SHUT-DOWN The following work was carried out in the four week shut-down which ended on 7th September:

New Beam Installation Work has begun on a new beam line called K1, which is more complicated than any of our previous beam lines. By eliminating various unwanted particles, K1 will produce a pure K meson beam at the French Bubble Chamber which is also currently being installed in the Main Experimental Hall. K1 will be the first beam at the Laboratory to use electrostatic particle separators which separate particles according to their velocity.

A new radiation shield wall consisting of steel blocks has been built under the west end of the shield bridge, and all K1 beam components in the magnet room and inside the shield wall have been completely installed. This part of the work was completed by 7th September as planned, so that Nimrod could start up on schedule. The remainder of the K1 installation work will now proceed whilst experimental work continues on other beam lines in the Main Experimental Hall.

Magnet Power Supplies No.1 rotor was removed from the stator to check the rotor pole assembly. In addition, a flywheel bearing had to be changed and a motor bearing rebedded. The bearing pedestal insulation was completely renewed on bearings 3, 4, 5 and 6, and the stator end turns of No.1 alternator were resprayed. The No.1 motor-alternator-flywheel set was re-aligned to the No.2 set and phonic wheel pick up assemblies of new design were fitted to both sets.

The new, lower value, alternator field discharge resistances were fitted and No.2 field circuit breaker was completely stripped and overhauled.

The demineralised water system layout was changed on the convertor plant to give a better distribution. The installation of demineralised water flow meters and new mercury condensers on the mutator groups was completed.

Beam Handling Power Supplies A number of modifications were carried out to the Brentford units in E4 which should enable servicing to be carried out more quickly.

Work on the Machine A Mark III target mechanism was commissioned and installed in Octant 4 for preliminary trials and the N1, K2, P2 and  $\pi$ 1 target mechanisms were modified to incorporate new target arm actuating mechanisms.

New high pressure cooling lines were fitted to the E4 bending magnet and dos-target in Straight 1; vertical and radial electrodes were installed in Straights 3 and 7, and aperture defining flaps in Straight 7. A new air blower cooling unit was installed for the Pye transmitter, with numerous design modifications to improve operational efficiency for the accelerating cavity. A new Swash Pump was fitted to the plunging mechanism in Straight 7.

On the injector, the linac lid was raised for attention to minor defects and the lens system in the d.c. gun was re-aligned. When the injector was restarted, a beam of 120 mA was recorded in the Low Energy Drift Space and a 30 mA beam was accelerated to 15 MeV.

VISITS ABROAD Mr. P.J. Finney will visit C.E.R.N. from 13th-18th September, where he will attend the Vth International Conference on Nuclear Photography.

Mr. J.D. Lawson will visit Eindhoven, Holland from 21st-23rd September, for discussion on the Amersham Cyclotron and on the proposed European Cyclotron Symposium.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
14th Sept.	A.E.R.E.	Elastic Scattering at 50 MeV.
18th-21st Sept.	R.H.E.L. and Queen Mary College	Study of (p,n) Reaction by Time of Flight Method

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INTERNAL COURSE Persons interested in attending the next short course (approx. 3 days) on FORTRAN programming for ORION should send their names now to Mr. D.A. Harragan, Room 1.38, Building R.1. The dates of the course will be announced later.

CONFERENCES The Institute of Physics and the Physical Society is organizing, in collaboration with the Joint British Committee for Vacuum Science and Technology, a one day conference on "Cryogenics in Relation to Vacuum," at the Institution of Electrical Engineers, London on 26th February, 1965. (Further details from Scientific Administration, Building R.20, Ext 484 or 6297).

CORRECTION Please note the reference to a conference on "High Energy Physics", to be held at Birmingham from 5th-8th April, 1965 mentioned in the Rutherford Laboratory Bulletin No. 34/64, is incorrect. The conference on "Elementary Particles" at the University of Birmingham from 5th-7th April, 1965 will be held and advance information is now available from Scientific Administration.

INTERNAL EVENTS

Mon., 14th Sept., 11.15a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. J.J. Thresher (R.H.E.L.)	Report on Dubna Conference II
Mon., 21st Sept., 11.15a.m., Lecture Theatre.	Nimrod Lecture Series	Prof. T.D. Lee	SU <sub>3</sub> Symmetry and Triplet Models

(Please note that commencing Mon., 14th Sept., coffee will be served before each Nimrod Lecture, from 10.45 a.m.)

EVENT AT A.E.R.E.

Mon., 14th Sept., 2 p.m., Rm. 1.12, Building 7.21	Solid State Phys. Colloq.	Prof. E.L. Hahn (Univ. of California, Berkeley)	Uses of Double Nuclear Resonances
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EVENT AT CULHAM LABORATORY

Wed., 16th Sept., 2 p.m., Conf. Room., Building E.6	Theory Div. Lecture	Dr. K.V. Roberts	On-line Scientific Computing and Visual Display; the System in use at Space Technology Labora- tories and Developments proposed for the KDF9 at Culham
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EXTERNAL EVENT

Wed., 16th Sept., 7.15p.m., The Ship Hotel, Duke St., Reading (Upper Deck entrance)	Inst. of Mech. Eng. Southern Branch Lecture	Mr. R.F. Ansdale  (visitors welcomed)	The N.S.U. Wankel Engine
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Scientific Administration

Building R.20

11th September, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 36/64 for the week commencing Monday, 21st September, 1964

VISITORS Two vacuum engineers from CEA, France accompanied by a representative from Edwards High Vacuum Ltd. will visit the Laboratory on Monday, 21st September.

Twenty six engineers attending the 'Physics for Engineers' course at the Reactor School will visit the Laboratory on Friday 25th September.

VISITS ABROAD Dr. A. M. Segar and Dr. P. J. Finney will each visit C.E.R.N. for approximately one week commencing 18th September and 21st September respectively, to assist in experimental runs with the British National Hydrogen Bubble Chamber.

Mr. G. Grossart will be in the U.S.A. for three weeks commencing 28th September. He will attend the Annual Symposium of the American Vacuum Society and also visit various accelerator laboratories.

ATTACHED STAFF Mr. Z. J. Moroz of the Warsaw Institute for Nuclear Science will be attached to the P.L.A. Division for a period of twelve months commencing 17th September, under a Fellowship from the International Atomic Energy Agency, Vienna. His office is in Room 9, Building R.34, Ext. 6240.

P.L.A. The programme scheduled for the P.L.A. during the current week is as follows:-

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
21st-24th Sept.	R.H.E.L. and Queen Mary College	Study of (p,n) Reaction by Time of Flight Method.
25th-26th Sept.	R.H.E.L.	Measurement of the Polarization of Neutrons from the D(p,n)2p Reaction at 50MeV.

The P.L.A. will be shut down for a period of approximately six weeks commencing 27th September, to enable various improvements to be carried out.

## INTERNAL EVENTS

Mon., 21st Sept., 11.15 a.m., Lecture Theatre.	Nimrod Lecture Series	Prof. T. D. Lee	SU3 Symmetry and Triplet Models.
Mon., 28th Sept., 11.15 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. A. Donnachie (U.C.L.)	Pion-Nucleon Scattering.

(Coffee will be served from 10.45 a.m. for both the above lectures.)

EVENT AT A.E.R.E. The British Ceramic Society will hold a one-day Colloquium on "Analysis of Pure Ceramics", on Thursday, 24th September, in the Cockcroft Hall. Details may be obtained from A.E.R.E. General Admin., Building 329, Ext. 72-2514.

EXTERNAL EVENTS 22nd-24th September: P.E.R.A. Conference and Exhibition on "Recent Developments in Transportation, Storage and Packaging", at Melton Mowbray.

23rd-25th September: I.P.P.S. Conference on "Fundamental Problems of Low Pressure Measurements", at N.P.L., Teddington.

POST GRADUATE EDUCATION CENTRE, A.E.R.E. The following courses will be held at the Harwell Reactor School on the dates indicated. Applications should be made through Division Heads to Mrs. M. C. Gould, Personnel Branch, Building R.20, Ext. 575, from whom further details may be obtained.

- "Group Theory and Quantum Mechanics". (Fridays, commencing 9th October.)
- "Neutron Thermalisation". (Tuesdays, commencing 13th October.)
- "Semiconductor Physics". (Wednesdays, commencing 21st October.)

EXTERNAL COURSES Details of a variety of afternoon and evening courses to be held at the Polytechnic, Regent Street, London W.1, may be obtained from Mrs. M. C. Gould, Personnel Branch, Building R.20, Ext. 575.

Building R.20.  
Scientific Administration

18th September, 1964.



# RUTHERFORD LABORATORY BULLETIN

No. 37/64 for the week commencing Monday, 28th September, 1964

NIMROD NIMROD reached the design intensity of  $10^{12}$  proton/pulse on the morning of 23rd September.

VISITORS Dr. Bhabha, Chairman of the Indian Atomic Energy Commission, will visit the Rutherford and Atlas Laboratories on Friday, 2nd October.

Dr. A. Zucker of the Oak Ridge National Laboratory will visit the Laboratory on Wednesday, 30th September for discussions with Dr. R. C. Hanna.

A party of physicists, from the University of Groningen, Holland, led by Professor Dr. H. Brinkman, will visit the Laboratory on Tuesday, 29th September.

VISITS ABROAD Dr. W. G. Galbraith, of the A.E.R.E. High Energy Physics Group, who has been on attachment to the Brookhaven National Laboratory for the past twelve months, returned to the Rutherford Laboratory on the 23rd September. His office is No. 2-29 in Building R.1, Ext. 6153.

Mr. I. Daly and Mr. J. Varley to C.E.R.N., Geneva on 30th September, where they will be attached to the British National Hydrogen Bubble Chamber team.

Dr. P. A. Chatterton and Dr. W. A. Smith will visit the U.S.A., departing on 3rd and 17th October respectively. During their stay they will attend an "International Symposium on Insulation of High Voltage in Vacuum" to be held at M.I.T. (Boston) and visit various other Laboratories. They will return on 24th and 31st September respectively. Dr. Chatterton will present a paper at the Symposium.

Mr. D. H. Lord, Mr. J. D. Forbes and Mr. R. H. Lawes will depart for Bologna, Italy on the 4th October, where they will attend the conference on "Programming and Hardware for Flying Spot Devices". They will return on the 9th, 10th and 7th October respectively.

INTERNAL COURSE The introductory course for Orion Users, announced in Bulletin No. 35/64, will be held in the Lecture Theatre on Wednesday, 7th October, Thursday, 8th October and Friday, 9th October at the following times:-

9.00 a.m. to 10.45 a.m., coffee at 10.30 a.m.  
2.00 p.m. to 3.45 p.m., coffee at 3.30 p.m.

The fifth session will be a talk on the FORTRAN Monitor System and the running of jobs on the Orion.

The sixth session on the Friday afternoon will only be held if found necessary.

LONDON TRAINS British Railways have altered the times of certain fast trains between London and Didcot. Details may be obtained from L.A.O.'s.

## INTERNAL EVENTS

Mon., 28th Sept., 11.15 a.m. Lecture Theatre.	Nimrod Lecture Series	Dr. A. Donnachie (U.C.L.)	Pion-Nucleon Scattering.
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(Coffee will be served from 10.45 a.m. before the above lecture).

There will be no lecture in the Nimrod Series on October 5th.

EXTERNAL EVENTS "Business Efficiency Exhibition", 5th-14th October, at Olympia, London. Tickets should be available shortly from Scientific Administration, Building R.20.

Scientific Administration

Building R.20.

25th September, 1964.



# RUTHERFORD LABORATORY BULLETIN

No. 38/64 for the week commencing Monday, 5th October, 1964

VISITS ABROAD. Mr. J. Burren to Bologna, Italy, from 6th-10th October, where he will attend the conference on "Programming and Hardware for Flying Spot Devices."

MOVES FROM THE A.E.R.E. OXFORD OFFICE. The Contracts Department, Oxford Office, will be moving to Building 329, A.E.R.E. Harwell, between the 10th and 14th December, 1964.

Room numbers and telephone extension details for the new locations will be published as soon as possible.

## INTERNAL EVENTS.

Fri., 9th Oct., Mobile Exhibition of Precision Electronic Measuring Equipment by the Solartron Electronic Group Ltd. 10.00 a.m.-4 p.m., adjacent to Building R.20.

Mon., 12th Oct., 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. G. Manning (R.H.E.L.)	(n-p) Charge Exchange Scattering
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## EXTERNAL EVENTS.

Wed., 21st Oct: The British Nuclear Energy Society Lecture on "Electric Power Supply and the Landscape" by Miss Sylvia Crowe, at 5.30 p.m., at the Inst. of Civil Engs., 1-7 Great Portland St., London, S.W.1. (off Parliament Sq.). Non-members are welcome, but admission by ticket only, obtainable from the Secretary of the Society, at Great George Street.

## STOP PRESS -

EXTERNAL COURSE. A course of ten lectures on "Laser Physics" will be held at the Borough Polytechnic on Thursday evenings at 7 p.m. commencing 15th October. Further details may be obtained from Mrs. M. C. Gould, Personnel Branch, Building R.20, Ext. 575.

## FORTHCOMING MEETINGS IN LECTURE THEATRE.

On Wednesday, 7th October, at 12.30 p.m., Mr. F. Riddell will be holding a meeting to which all members of the Laboratory are invited.

On Friday, 9th October, at 12.30 p.m., Mr. A. Neave will be holding a meeting to which all members of the Laboratory are invited.

Scientific Administration,  
Building R.20.

2nd October, 1964



# RUTHERFORD LABORATORY BULLETIN

No. 39/64 for the week commencing Monday, 12th October, 1964.

VISITS ABROAD Dr. F.M. Russell to the U.S.A. and Canada, 13th October-5th November where he will have discussions at Oak Ridge and Chalk River on the recent developments on Separated Orbit Cyclotrons.

Mr. D.H. Lord to the U.S.A. on 18th October for two weeks where he will visit the Computer Control Co., and M.I.T., Boston for consultations on computers and automatic track measuring devices.

ATTACHED STAFF Dr. A.V. Bellido, of the National University of Arequipa, Peru is attached to the P.L.A. Division for a period of twelve months from 2nd October, under a Fellowship from the International Atomic Energy Agency, Vienna. His office is in Room No.4, Building R.34 (Nuclear Chemistry Wing), Ext. 508.

Dr. K. Fritze, Research Chemist, of the McMaster University, Hamilton, Ontario is attached to the P.L.A. Division for a period of six months as from 1st October. His office is in Room No.1, Building R.34 (Nuclear Chemistry Wing), Ext. 483.

FELLOWSHIP AWARDS A small number of Post-Doctoral Fellowships, tenable in Australia, are available under the sponsorship of the Australian Institute of Nuclear Science and Engineering, which is an organisation set up jointly by the Australian Universities and the Australian Atomic Energy Commission. Applications will be considered on a continuous basis, and no closing date is specified in the announcement. Copies of the announcement may be seen on application to Mr. A.G. Taylor, Personnel Branch, Building R.20, Ext. 495.

UNCLAIMED MAIL Technical Data Sheets have been received from General Micro-electronics Ltd Santa Clara, California, on their Pico Logic 5000 device. The name of the person requesting this information was not included in the address and the firm have no copy of the original request. Would the person who asked for this information please contact H.F. Norris, Scientific Administration, Building R.20, Ext. 484. Additional copies of this data sheet have now been received and are available to anyone interested.

CORRECTION The British Nuclear Energy Society Lecture on "Electric Power and the Landscape" as advertised in Bulletin 38/64 is to be held at Great George St. and not Great Portland St.

## INTERNAL EVENTS

Mon., 12th Oct., 11.15 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. G. Manning (R.H.E.L.)	(n-p) Charge Exchange Scattering
Mon., 19th Oct., 11.15 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. A. Micheli (C.E.R.N.)	Magnetic Spark Chambers

## EXTERNAL EVENTS

Wed., 14th Oct., 7 p.m., S.E.B., George St., Oxford.	I.E.E. Lecture (District meeting)	Mr. H.A. Codd (Elliott Traffic Automation Ltd.)	Road & Rail Traffic Control Using Computers
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20th-22nd October: 17th Annual Engineering Exhibition, New Horticultural Hall, London S.W.1. (Tickets may be obtained from H.F. Norris, Scientific Administration, Building R.20. A catalogue will be available shortly).

Scientific Administration  
Building R.20

9th October, 1964.