

RUTHERFORD LABORATORY BULLETIN

No. 140 for the week commencing Monday 28th October, 1963

VISITS ABROAD Mr. D. H. Lord and Mr. R. A. Lawes of the Bubble Chamber Group will visit C.E.R.N. from 28th-31st October for discussions on high speed measuring equipment for bubble chamber film.

Dr. P. J. Duke of the High Energy Physics Group will leave on 29th October for a six weeks visit to C.E.R.N.

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>
28th Oct.	Oxford University	$C^{12}(p,n)N^{12}$ Reaction
29th Oct.-1st Nov.	Queen Mary College	Calibration of Analysers for "R" Measurement at 50 MeV.
2nd Nov.	R.H.E.L. Nuclear Chemistry	Fission Studies at 30 MeV.

FELLOWSHIP AWARDS Details of Graduate Fellowships and Assistantships, tenable at universities in the United States during the academic year 1964-65, can be obtained from Mr. T. Evans, Personnel Branch, Building R.20 (Ext. 495). Applicants should be British subjects, graduates of a British University, under 30 years of age for Fellowships or under 36 for Assistantships. The closing date for the receipt of completed applications is 2nd December, 1963.

INTERNAL EVENTS

Mon., 28th Oct., 11.15 a.m., Conf. Rm., Bldg. R.1.	Nimrod Lecture Series	Mr. J. A. Newth (Imperial College)	Revised Proposal for the I.C. and Manchester Univ. Experiments on Nimrod.
Mon., 28th Oct., 2.15 p.m., Conf. Rm., Bldg. R.1.	Nimrod Lecture Series	Dr. H. Faissner (C.E.R.N.)	C.E.R.N. Neutrino Experiments using Spark Chambers.
Wed., 30th Oct., 11.00 a.m., Conf. Rm., Bldg. R.1.	Atlas Laboratory Lecture	Mr. B. E. Cooper	The Presentation of Experimental Data to Computers.
Mon., 4th Nov., 11.15 a.m., Conf. Rm., Bldg. R.1.	Nimrod Lecture Series	Dr. C. Fisher	Properties of the Cascade Hyperons - some results of the 1.5 BeV/c (T.8) and 3.5 BeV/c (T.11) Heavy Liquid Bubble Chamber Experiments.

EXTERNAL EVENTS

Mon., 28th Oct., 5.30 p.m., Savoy Place, W.C.2.	I.E.E. Discussion Meeting	-	Solid State Nanosecond Techniques.
Tues., 29th Oct., 2.30 p.m., 21 Banbury Road, Oxford.	Nuclear Physics Seminar	Dr. K. Riley (Cavendish Lab.)	Total cross-sections for mesons, antiprotons and deuterons.
Thurs., 31st Oct., 4.15 p.m., Clarendon Lab., Oxford.	Theor. Physics Seminar	Prof. R. H. Dalitz	Resonances and Poles.
Fri., 1st Nov. 4.15 p.m., Clarendon Lab., Oxford.	Colloquium	Dr. G. H. Stafford	Research on the 50 MeV Proton Linear Accelerator

Rutherford Laboratory
25th October, 1963.

H. F. Norris
Scientific Administration

RUTHERFORD LABORATORY BULLETIN

No. 141 for the week commencing Monday, 4th November, 1963

VISITORS A party of students from Westfield College, London will visit the Laboratory on Monday, 4th November.

VISITS ABROAD Dr. L. C. W. Hobbis and Mr. E. W. Kendall of the Nimrod Injector Group and Mr. R. G. Russell of the Nimrod Engineering Group will visit S.A.M.E.S., Grenoble and C.E.R.N., Geneva from 4th-8th November.

Mr. M. Snowden will be in the U.S.A. from 5th-23rd November for discussions on bubble chamber track measuring equipment at various laboratories.

Mr. A. T. Gresham of the Central Engineering Group will visit the Oerlikon Engineering Co., Zurich from 5th-6th November for discussions on proton beam extraction magnets for NIMROD.

Mr. J. R. J. Bennett of the Cyclotron Group will visit Boston, U.S.A. from 8th-24th November where he will attend the 3rd International Accelerator Conference, sponsored by High Voltage Engineering Corporation.

TREND REPORT The recently published report of the Trend Committee into the organisation of civil science may be seen in the Library, Building R.32.

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-8th Nov.	R.H.E.L.	Polarised Proton Source Tests
9th-10th Nov.	Queen Mary College	"R" Measurement at 50 MeV.

PRODUCTION ENGINEERING RESEARCH ASSOCIATION The Rutherford Laboratory is now an associate member of the Production Engineering Research Association. This entitles Laboratory staff to use the Association's advisory services. Mr. P. Bowles has been nominated the Laboratory's official representative.

INTERNAL EVENTS

Mon., 4th Nov., 11.15 a.m., Conf. Rm., Bldg. R.1	Nimrod Lecture Series	Dr. C. Fisher	Properties of the Cascade Hyperons - some results of the 1.5 BeV/c (T.8) and 3.5 BeV/c (T.11) Heavy Liquid Bubble Chamber Experiments.
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Thurs., 7th Oct: Exhibition by C & N (Electrical) Ltd., Gosport, of their equipment, (Instrument Cases and Chassis), in Conference Room No. 4, Building R.1, from 1.30 - 4.30 p.m.

Thurs., 7th Nov. 5.30 p.m., Conf. Rm., Bldg. R.1	Evening Lecture Series	Prof. R. O. Kapp	A New Theory of Gravitation.
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Mon., 11th Nov., 11.15 a.m., Conf. Rm., Bldg. R.1	Nimrod Lecture Series	Dr. J. G. Taylor (Cambridge Univ.)	Towards a Field Theory of Elementary Particles for Strong and Weak Interactions.
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EVENT AT A.E.R.E.

Thurs., 7th Nov., 5.30 p.m. Reactor Sch.	A.S.E.E. Lecture	Mr. D. Connelly (Sangamo Weston Ltd.)	Electrical Measuring Instruments.
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EXTERNAL EVENTS

Tues., 5th Nov., 2.30 p.m., 21 Banbury Rd., Oxford.	Nuclear Physics Seminar	Dr. W. D. Allen	The Electrostatic Genera- tor of the Oxford Nuclear Structure Project.
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Fri., 8th Nov., 4.15 p.m. Clarendon Lab., Oxford.	Colloquium	Prof. H. Elliot (Imperial Coll.)	Cosmic Rays and Space.
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Wed., 6th Nov., 2.30 and 5.30 p.m., Savoy Place W.C. 1	I.E.E. Colloquium		Logic Circuits for Digital Computers
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H. F. Norris
Scientific Administration

RUTHERFORD LABORATORY BULLETIN

No. 142 for the week commencing Monday, 11th November, 1963

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-18th Nov	Queen Mary College	"R" Measurement at 50 MeV.

INTERNAL EVENT

Mon., 11th Nov., 11.15 a.m., Conf. Rm., Bldg. R.1	Nimrod Lecture Series	Dr. J. G. Taylor (Cambridge Univ.)	Towards a Field Theory of Elementary Particles for Strong and Weak Interactions.
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EVENT AT A.E.R.E.

Post Graduate Education Centre: The series of four lectures on 'The Role of a Unit System of Electronic Equipment in Nuclear Research', to be given by Mr. H. Bisby on 11th, 13th, 18th and 20th November at 9 a.m., will now be given in the Cockcroft Hall and not in the Reactor School as previously announced.

EXTERNAL EVENTS

11th-16th November: Engineering Materials and Design Exhibition, Earls Court, London. (Tickets, which also admit to the International Factory Equipment Exhibition and Industrial Photographic and Television Exhibition, running concurrently at Earls Court, may be obtained from H. F. Norris, Building R.32, Ext. 484).

Tues., 12th Nov., 2.30 p.m. 21 Ban- bury Rd., Oxford	Nuclear Physics Seminar	Dr. J. M. Freeman (A.E.R.E.)	Some Recent Experi- ments Relating to Theories of Weak Interactions.
Wed. 13th Nov., 7 p.m., 37 George St., Oxford.	I.E.E. Lecture	Mr. C. J. George (Electricity Council)	Electricity - Meeting the Future Demand
Thurs., 14th Nov., 4.15 p.m., Clarendon Lab., Oxford	Theor. Physics Seminar	Mr. L. Castillejo	Methods of Calculating the Width of the Giant Dipole State.
Fri., 15th Nov., 4.15 p.m. Clarendon Lab., Oxford.	Colloquium	Dr. B. R. Coles (Imp. Coll.)	Superconductive Alloys

H. F. Norris
Scientific Administration

Rutherford Laboratory,
Building R.32.

8th November, 1963

AKF

RUTHERFORD LABORATORY BULLETIN

No.143 for the week commencing Monday, 18th November, 1963

MEMBERSHIP OF THE GOVERNING BOARD. Sir Keith Murray's membership of the Governing Board ceased upon his resignation from the Chairmanship of the University Grants Committee at the end of September. Sir John Wolfenden, previously one of the two Vice-Chancellors on the Board, became one of the U.G.C. representatives. Dr. E. M. Wright, Principal and Vice-Chancellor of the University of Aberdeen, has been appointed as the new Member of the Board.

VISITOR. Professor Hill Worner of the University of Melbourne, President of the Australian Institute of Nuclear Science and Engineering, will visit the Laboratory on Thursday, 21st November.

VISITS ABROAD. Mr. P. Wilde, to Paris, 24th-28th November, where he will attend the International Symposium on Nuclear Engineering.

Mr. J. M. Scarr to C.E.R.N. on 19th November for approx. five weeks to continue working on the British National Hydrogen Bubble Chamber runs.

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>
20th-25th Nov.	Queen Mary College	"R" Measurement at 50 MeV

INTERNAL EVENTS

Nimrod Lecture Series: There will be no talk in this series on Monday 18th November.

Thurs., 21st Nov. 5.30 p.m., Conf. Rm., Bldg.R.1.	Evening Lecture Series	I. M. Adam (Principal, St. Birinus Group School of Nursing).	Physical Aspects of Mental Illness
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EVENTS AT A.E.R.E.

Tues., 19th Nov. 2 p.m., Conf. Rm., Bldg.8.9	Theor. Phys. Div. Seminar	Prof. A. Dalgarno (Queen's University, Belfast)	Electron Temperature in the Upper Atmosphere
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EXTERNAL EVENTS

Tues., 19th Nov., 2.30 p.m., 21 Banbury Rd., Oxford	Nuclear Physics Seminar	Dr. F. W. K. Firk (A.E.R.E.)	Neutron and Photon Reaction Studies using Electron Linear Accelerators
Wed., 20th Nov., 5.30 p.m., Savoy Place, W.C.1.	I.E.E. Lecture	Mr. D. N. Truscott	Computers in Control of Processes - The Coming Revolution in Industry
Thurs., 21st Nov., 4.15 p.m., Clarendon Lab., Oxford	Theor. Physics Seminar	Dr. J. C. Taylor (Cambridge)	Feinberg's and Pais' Theory of Higher Order Effects in Weak Interactions
Fri., 22nd Nov. 2.30 p.m., Lecture Theatre, Bldg.E.3. (Limited number of tickets available from H. F. Norris, Bldg.R.32, Ext.484).	Culham Laboratory Lecture	Sir George Thomson	The Discovery of the Electron
Fri., 22nd Nov., 4.15 p.m., Clarendon Lab., Oxford	Colloquium	Dr. R. A. Lyttelton, F.R.S. (St. John's College Cambridge)	The Interiors of the Terrestrial Planets and the Origin of Mountains

The Bristol College of Science and Technology is holding a two-day Post-Graduate Course for electronic engineers and physicists on some recent advances in the field III-V compound semiconductors, from 9.30 a.m., Friday, 22nd November, to 1 p.m., Saturday, 23rd November. Applications to Dr. W. C. Clark, Dept. of Physics, Bristol College of Science and Technology, Ashley Down, Bristol 7.

Rutherford Laboratory
15th November, 1963

H. F. NORRIS
Scientific Administration

RUTHERFORD LABORATORY BULLETIN

No.144 for the week commencing Monday, 25th November, 1963

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

Date	Team	
25th-27th Nov.	Queen Mary College	"R" Measurement at 50 MeV
28th-30th Nov.	University Coll. London	Spin Rotation in (p- α) Scattering

UNIVERSITY POSTS. There is a vacancy for a Senior Lecturer and several vacancies for Lecturers in the Department of Physics, University of Liverpool. Details can be obtained from Mr. A. G. Taylor, Personnel Branch, Building R.20, Ext.510.

EXTERNAL COURSE. A course of fifteen lectures on "Nuclear Radiation, Detection and Measurement" will be held at the Borough Polytechnic, Borough Road, London, S.E.1., on Wednesdays at 7 p.m. commencing 8th January, 1964. The fee is sixty-five shillings. Further information can be obtained from Mr. T. Evans, Personnel Branch, Building R.20, Ext.495.

INTERNAL EVENTS.

Mon., 25th Nov., 11.15 a.m., Conf. Rm., Bldg.R.1	Nimrod Lecture Series	Dr. P. E. Schlein (U.C.L.A. - now at Saclay)	The Spin-parity Determination for the Ξ^* (1530 MeV) Resonance.
Tues., 26th Nov., 11.00 a.m., Conf. Rm., Bldg.R.12	Atlas Laboratory Lecture	Mr. A. G. Bell	Combinatorial Analysis in Game Playing.
Thurs., 28th Nov., 11.00 a.m., Conf. Rm., Bldg.R.1	Atlas Laboratory Lecture	Mr. A. G. Bell	Automatic Learning.
Mon., 2nd Dec., 11.15 a.m., Conf. Rm., Bldg.R.1	Nimrod Lecture Series	Dr. K. D. Riley (Cambridge)	Total Cross-sections of Mesons on Nucleons.

There are a few copies of notes on Prof. R. O. Kapp's recent lecture, available from Mr. T. R. Walsh, Building R.1, Ext.438.

EVENTS AT A.E.R.E.

Tues., 26th Nov., 2 p.m., Conf. Rm., Bldg.8.9	Theor. Phys. Div. Seminar	Mr. A. Curtis (A.E.R.E.)	Rational Approximations to Analytical Functions.
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Film:- "Searching for the Ultimate", a 30-minute American television film on particle accelerators, will be shown in the Cockcroft Hall at 2.15 p.m. on 2nd December and at 11.45 a.m. on 4th December. The outer gate will be open and the inner gate manned for both shows.

A. Gallenkamp and Co. Ltd. will be demonstrating a number of Mettler Precision Balances in the Games Room of the Social Club, Building 161, from 11 a.m. to 4 p.m. on Wednesday, 4th December.

EXTERNAL EVENTS.

Mon., 25th Nov., 5 p.m., Univ. of Reading	Physics Dept. Colloquium	Prof. S. K. Runcorn	Recent Studies of the Earth's Interior.
Tues., 26th Nov., 2.30 p.m., 21 Banbury Road, Oxford	Nuclear Physics Seminar	Dr. P. E. Schlein	Experimental Studies of the Non-Mesonic Decay of Light Hypernuclei.
Tuesday, 26th November: I. Mech. Eng. Lecture, "The Digital Computer in Engineering", by Mr. B. J. Wood and Mr. D. G. Walters. 7.15 p.m. in the Visitors Reception Hall, Messrs. Huntley and Palmers Ltd., Gasworks Road, Reading. (Visitors are welcome).			
Thurs., 28th Nov., 4.15 p.m., Clarendon Lab., Oxford	Theor. Physics Seminar	Prof. S. F. Edwards (Manchester)	A New Method of Solving the Many-Body Problem.

Rutherford Laboratory
22nd November, 1963

H. F. Norris
Scientific Administration

RUTHERFORD LABORATORY BULLETIN

No.145 for the week commencing Monday, 2nd December, 1963

VISITORS. Dr. C. Taylor, Mr. U. Tallgren and Mr. Mario Weiss of the C.E.R.N. Proton Synchrotron Division will visit the Laboratory from 2nd-4th December. Anyone wishing to see them should contact Dr. L. C. W. Hobbs, Building R.1., Ext. 418.

VISITS ABROAD. Mr. L. B. Mullett will visit the U.S.A. from 2nd-8th December, when he will attend the dedication ceremony of the Z.G.S. machine at Argonne, and that of the Princeton-Pennsylvania Accelerator. He will also visit Brookhaven.

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>
5th-6th Dec.	University Coll. London	Spin Rotation in (p- α) Scattering
7th-8th Dec.	Birmingham University	Polarisation in Elastic Scattering

MISSING EQUIPMENT. The following item of equipment has been reported missing :-

Megg Tester 0-100 M/ohm, Ser. No. 1189206, Cat. No. 3-4/0896.

Anyone with information of the whereabouts of this instrument should contact Mr. S. H. Dixon, Construction Group, Building R.13, Ext. 6195.

EXTERNAL COURSE. A course of lectures on "The Dosimetry of Ionizing Radiations" will be held on Wednesday afternoons, commencing 8th January, 1964, at The Polytechnic, 309, Regent Street, London. W.1. The fee for this course is forty-two shillings. Further information can be obtained from Mr. T. Evans, Personnel Branch, Building R.20, Ext. 495.

INTERNAL EVENTS.

Mon., 2nd Dec., 11.15 a.m., Conf. Rm., Bldg.R.1.	Nimrod Lecture Series	Dr. K. D. Riley (Cambridge)	Total Cross-sections of Mesons on Nucleons.
Mon., 9th Dec., 11.15 a.m., Conf. Rm., Bldg.R.1.	Nimrod Lecture Series	Dr. C. Rubbia (C.E.R.N.)	Recent Cyclotron Experiments.

POST-GRADUATE EDUCATION CENTRE A.E.R.E. A new Post-Graduate Education Centre Bulletin, giving details of part-time and full-time courses, is to be issued at about monthly intervals. A copy of these bulletins can be seen in the Library, Building R.32. Applications to attend any of these courses should be made through H. F. Norris, Building R.32, Ext. 484.

Part-time Courses.

"The Effects of Spin-Orbit Coupling on Band Theory" by Dr. R. J. Elliott, Lecturer in Theoretical Physics, Oxford University. At 11 a.m. on 10th, 12th, and 17th Dec., and 10 a.m. on 19th Dec. in Reactor School.

"Modern Developments in Nuclear Radiation Detection Techniques" by Mr. W. Abson, Mr. R. B. Owen, Mr. W. R. Loosemore and Mr. P. Iredale. Five lectures at 9 a.m. on 13th-17th January, 1964 in Reactor School.

"Dislocations" by Dr. R. Bullough, Theoretical Physics Division. Twelve lectures at 11 a.m. Thursdays, 20th Feb.-14th May 1964, excluding 26th March, in Reactor School. (This series is intended as a sequel to Dr. A. B. Lidiard's series on "Crystal Defects and Irradiation Damage".)

EVENTS AT A.E.R.E.

Tues., 3rd Dec., 2.00 p.m., Conf. Rm., Bldg. 8.9	Theor. Phys. Div. Seminar	Dr. I. C. Percival (Queen Mary Coll. London).	The Classical Approximation in Atomic Scattering
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Film:- "Searching for the Ultimate", a 30-minute American television film on particle accelerators, will be shown in the Cockcroft Hall at 2.15 p.m. on 2nd December and at 11.45 a.m. on 4th December. (Outer gate open and inner gate manned for both shows.)

Thurs., 12th Dec. Evening Mr. P. J. Searby The Trend Report on Organisation
5.15 p.m., Training Colloq. (Deputy Secretary of Civil Science.
Centre, Bldg. 328.T. A.E.R.E.)

As this colloquium is of general interest, those wishing to attend are asked to inform H. F. Norris, Building R.32, Ext. 484, in good time, as seating accommodation is limited.

EXTERNAL EVENTS.

Wed., 4th Dec. The Electronics Division of Connections in Electronic Circuits.
2.30 p.m., Savoy Inst. of Elect. Engineers
Place, London. (Registration by written application to Secretary).
W.C.2.

Thurs., 5th Dec., Seminar Dr. Jan Kaczér The Domain Structure of
4.15 p.m., Clarendon (Czechoslovak Uniaxial Ferromagnets
Laboratory, Oxford. Academy of
Sciences, Prague)

Fri., 6th Dec. Colloquium Dr. Jan Kaczér Work at the Institute of Physics
4.15 p.m., Clarendon (Czechoslovak of the Czechoslovak Academy of
Laboratory, Oxford. Academy of Sciences, Prague.
Sciences, Prague)

Exhibition - C.E.G.B. 'Planning for Power'

2nd and 3rd December at Didcot Methodist Church Hall

4th and 5th December at Harwell Village Hall

6th and 7th December at Sutton Courtenay Village Hall

(Open 1 p.m. - 7.30 p.m. Admission free)

Rutherford Laboratory
29th November, 1963

H. F. Norris
Scientific Administration

RUTHERFORD LABORATORY BULLETIN

No. 146 for the week commencing Monday, 9th December, 1963

VISITS The visit of Dr. C. Taylor, Mr. U. Tallgren and Mr. Mario Weiss of the C.E.R.N. Proton Synchrotron announced in last week's bulletin will now take place from 9th-11th December. Anyone wishing to see them should contact Dr. L. C. W. Hobbis Building R.1, Ext. 418.

Thirty-six members of the Chelsea College Mathematics and Physical Society will visit the Laboratory on Wednesday, 11th December.

VISITS ABROAD The Director will attend a meeting of the C.E.R.N. Council at Geneva on 17th December.

Mr. M. Snowden will visit C.E.R.N. on 10th-11th December, for discussions on the British National Hydrogen Bubble Chamber.

Mr. R. T. Elliott will go to C.E.R.N. on 9th December for one week, to continue work on camera modifications for the B.N.H.B.C.

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>
9th-14th Dec.	Birmingham University	Polarisation in Elastic Scattering

MISSING EQUIPMENT The following bicycles have been reported missing:-

Serial No. 186, Frame No. 501100

Serial No. 229, Frame No. 122757

Will anyone who can locate either of these two machines please inform Inventories Section, Ext. 570.

INTERNAL EVENTS

Mon., 9th Dec., Nimrod Dr. C. Rubbia Recent Cyclotron Experiments.
11.15 a.m., Conf. Lecture (C.E.R.N.)
Rm., Bldg. R.1 Series

Wed., 11th Dec: Mobile Exhibition by S.E. Laboratories (Engineering) Ltd. Feltham, Middlesex. (Ultra-violet recorders, transducers, flowmeters, frequency converters etc.). 10 a.m.-4.30 p.m., adjacent to Bldg. R.20.

Wed., 11th Dec: Demonstration by Telford Products Ltd., Acton, of their Type 'A' Oscilloscope camera, also various automatic, instrumentation and high speed 16mm and 35 mm cameras, in Conference Room No. 4, Building R.1, from 1.30-4.30 p.m.

Thurs., 12th Dec., Evening Dr. G. J. Whitrow The Cosmological Problem
5.30 p.m., Conf. Lecture (Imp. Coll.)
R m., Bldg. R.1 Series

EVENTS AT A.E.R.E.

Film:- "Invisible Bullets" (Introduction to Radiation), a 30-minute American television film, will be shown in the Cockcroft Hall at 2.15 p.m. on 9th December and at 9.30 a.m. on 10th December.

(Outer gate open and inner gate manned for both shows.)

Thurs., 12th Dec. Evening Mr. P. J. Searby The Trend Report on Organisation
5.30 p.m., Colloq. (Deputy Secretary of Civil Science.
Cockcroft Hall.* A.E.R.E.)

*Please note that because of the large number wishing to attend, this colloquium will now take place in the Cockcroft Hall and not in the Training Centre.

EXTERNAL EVENTS

Mon., 9th Dec., Physics Dr. J. Malos Spark Chamber Physics.
4.45 p.m. Univ. Colloq. (Bristol)
of Bristol.

Wed., 11th December, 6.30 p.m. at the Rugby College of Engineering Technology: Discussion, to be opened by Mr. P. Bowles, on the recent I.E.E. Papers, "Magnet Power Supply for the 7 GeV Proton Synchrotron Nimrod".

RUTHERFORD LABORATORY BULLETIN

No. 147 for the Week commencing Monday, 16th December, 1963

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>
16th Dec.	Birmingham University	Polarisation in Elastic Scattering
17th-23rd Dec.	University College London	Spin Rotation in ($p-\alpha$) Scattering

EXTERNAL COURSE - A series of ten weekly lectures on "Finite Groups and their Application to Physics" will be given at the School of Science, Oxford College of Technology, beginning Tuesday, 14th January, 1964, 7-8.30 p.m. Fee for the course is £2. Further details from Mr. T. Evans, Personnel Branch, Building R.20, Ext. 495.

ADMINISTRATION NOTICE - Some money has been found in the corridor adjacent to the foyer in Building R.1. Enquiries should be made to the L.A.O., Building R.1.

INTERNAL EVENTS

Wed., 18th Dec., 11.00 a.m., Conf. Rm., Bldg. R.12	Atlas Laboratory Lecture	Mr. F.R.A. Hopgood	Coding of Arithmetic Statements in the S.2 Compiler
Thurs., 19th Dec., 5.30 p.m., Conf. Rm., Bldg. R.1	Evening Lecture Series	K.L. Perrin, M.A.	The Ryder Shorthand Manuscripts

EVENTS AT A.E.R.E.

Mon., 16th Dec., 11.30 a.m.	Film - 'Challenge' series of	"Atomic Furnaces"
Tues., 17th Dec., 2.15 p.m.	American Television programmes	(30 mins.)

Cockcroft Hall

(Outer gate open and inner gate manned)

Tues., 17th Dec., 2.00 p.m., Conf. Rm., Bldg. 8.9	Theor. Phys. Seminar	Prof. B.H. Flowers (Univ. of Manchester)	Pairing Forces in Finite Systems
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EVENT AT CULHAM LABORATORY

Fri., 20th Dec., 3.15 p.m., Main Lecture Theatre	Culham Laboratory Lecture	Dr. Magnus Pike	Science and Non-Science
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(Limited number of tickets available from H.F. Norris, Bldg. R.32, Ext. 484)

EXTERNAL EVENT

Tues., 17th Dec., 7.15 p.m., Small Town Hall, Reading	I. Mech.E. Lecture	Prof. J. Loxham (Coll. of Aeronautics)	The Next Phase in the Development of Engineering Manufacture
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(Visitors welcome)

Building R.32,
Rutherford Laboratory.

H.F. Norris
Scientific Administration

13th December, 1963.