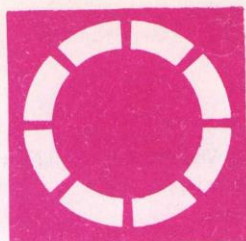


N 16/65
3 May 65



Rutherford Laboratory Bulletin

General News

NIMROD MAGNET POWER SUPPLY. A similar fault to that which caused the accident to Alternator No.1 has been found on the rotor of Alternator No.2. This rotor has also been returned to the manufacturers to be rebuilt. The possibility of continuing the high energy physics programme at half repetition rate has had to be abandoned. One half of the power supply will be in operation again in September and the complete power supply a month later. Meanwhile NIMROD will be operated at low energies (up to 2 GeV) mainly for accelerator physics directed towards having an improved machine when full energy is again available. Some experiments already on the NIMROD programme will use the low energy beam for setting up. Data collection may be possible in a few cases. CERN have offered some use of their facilities and a team from the Laboratory will move to the 28 GeV P.S. to carry out their experiment.

COMMENDATION. Medical Division A.E.R.E. have sent a message congratulating Mr. L.J. McKenney, shift mechanical fitter and Mr. C. Lambert shift electrical fitter on their quick outstanding efforts to revive a member of the Lab. who died last week on the way to hospital. During the four minutes that elapsed between phoning Medical Division and the arrival of the people from Medical Division, mouth-to-mouth resuscitation was applied by Mr. McKenney and Mr. Lambert which proved successful, if, as it unfortunately turned out, only temporarily. It is hoped that the fine example shown by Mr. McKenney and Mr. Lambert will encourage everyone to take advantage of the training in mouth-to-mouth resuscitation that is available on a continual basis from the Laboratory Safety Group.

BURSARY AND SANDWICH AWARDS, 1965. A limited number of awards are available to members of staff who wish to undertake full-time or sandwich courses at Universities or Colleges of Advanced Technology. Details may be obtained from the Personnel Group, and anyone who would like to be considered for such an award should contact A.G. Taylor, Bldg R.20, (Ext 495) without delay.

Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
2-5 May		Maintenance
6-7 May	RHKL and Queen Mary College	(p,n) Reactions by the Time of Flight Method.
8-10 May	Oxford Univ.	Total Reaction Cross-sections

NIMROD 2 GeV operation - Cycle 1 (3.5.65.-14.5.65.)

Extraction Studies (External proton beam)

Machine Physics

High Energy Physics:-

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	
AERE/Queen Mary College	P6	Proton-proton inelastic scattering	Setting up
Hydrogen Bubble Chamber Collaboration	K1	Investigation of low energy experiments	Setting up

Internal Events

Mon., 3 May,
11.15 a.m., Main
Conf. Rm., R.1

Nimrod
Lecture
Series

Dr. P. Falk-Vairant
(Univ. of Paris)

Neutral Processes in
High Energy
Interactions.

Please note change of venue for this event.

Wed., 5 May,
2 p.m., Main
Conf. Rm.,
Atlas Lab.

Lecture

P.J. Titman
(I.B.M.)

M.P.P.L. (N.P.L.). The
New Programming Language
for the 360 Series

External Events

Mon., 3 May,
4.15 p.m., Clarendon
Lab., Oxford

Theor.
Phys.
Talk

Prof. T. Fulton
(John Hopkins &
Vienna)

Symmetry Groups Containing
Unitary Spin and the
Poincaré Group

Tues., 4 May,
2.30 p.m., 21
Banbury Rd, Oxford.

Nuclear
Physics
Seminar

Prof. R.M. Eisberg
RHEL and Univ.
of California

Total Reaction Cross-
sections for Proton
Scattering

Tues., 4 May,
4.30 p.m., 45
Gordon Sq. W.C.1.

Inst. of
Computer Science
Seminar

Prof. G. Dahlquist
(Royal Inst. of
Tech., Stockholm)

Convergence Acceleration
from the Point of View of
Linear Programming

Thurs., 6 May,
4.15 p.m., Clarendon
Lab., Oxford.

Theor.
Phys.
Seminar

Dr. C.M. Shakin

Effective Interaction in
Nuclei.

Fri., 7 May,
4.15 p.m., 21
Banbury Rd, Oxford.

Colloq.

Dr. P.G.H. Sandars
(Clarendon Lab.,
Oxford).

Time Reversal Invariance

18-21 May: Radio and Electronic Component Show, at Olympia London, 10 a.m.-6 p.m. daily. Tickets will be available shortly from H.F. Norris, Scientific Administration, Bldg R.20 Ext 484.

17-21 May: 8th International Instrument Show, at Grosvenor House, Park Lane, London, 10.30 a.m.-6.30 p.m. daily except Wednesday 10.30 a.m. to 9 p.m. This is an exhibition by B & K Laboratories running concurrently with the Components Show. Tickets are available from H.F. Norris, Bldg R.20, Ext 484.

A.E.R.E.

Tues., 4 May,
2 p.m., Conf.
Rm, Bldg 8.9

Theor.
Phys.
Seminar

Dr. G.N. Minerbo
(A.E.R.E.)

Potential Scattering for
Large Complex Angular
Momentum.

Social News

RECORD PROGRAMME: 12.30 p.m., Tuesday, 4 May, R.4 Conference Room, Building R.1.
Sibelius - Symphony No.4.

The series of Sibelius symphonies continues with a performance of No.4, which is probably the least known of the seven. If any of Sibelius' work represents his environment of bleak, bitter Finnish landscapes it is this symphony. The rich orchestral sounds of the second symphony, played last month, are completely absent and the orchestral writing is pared to the bone of the symphonies structure. It is a cold forbidding work but one in which atmosphere is projected as well as anywhere else in music.

DARTS TOURNAMENT. The R.H.E.L. Annual Darts Competition will take place on 21 May in the A.E.R.E. Social Club, 7.30 p.m. - 11.30 p.m. It will be a knock-out competition for teams of four, pairs and single, the pairs and singles must be drawn from the teams. Closing date for entry is 4 May and names should be sent to either Malcolm Arnold, R.9 Workshops or Eric Kirby, R.18 Workshops.

Meeting: Main Conference Room, Building R.1 at 12.30 p.m., Wednesday, 5 May, for Captains of Darts Teams who wish to enter.

Date for your Diary: Antiques Fair - Chelsea Town Hall, 5-15 May.

CHRISTIAN FELLOWSHIP. The R.H.E.L. Group A.G.M. held on 28 April was adjourned owing to shortage of time, and will be continued on Wednesday, 5 May, at 1 p.m. in the P.L.A. Conference Room, R.12. All members are asked to make a special effort to attend this most important meeting. Advance Notice: Rev. David Mills of the Congregational Church, Tilehurst, will speak on "The Nature and Person of the Holy Spirit", at 1 p.m., on Wednesday, 12 May, in the P.L.A. Conference Room.

Rutherford Laboratory
30 April, 1965.

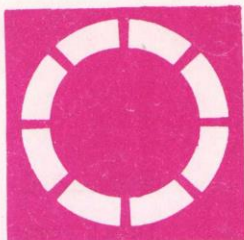
H.F. Norris, Ext 484
Scientific Administration
Building R.20

STOP PRESS

General News

OVERSEAS VISIT Mr. M. Snowden, to C.E.R.N., 5-7 May for discussions with the Hydrogen Bubble Chamber Team.

No. 17/65
10 May 65



Rutherford Laboratory Bulletin

General News

LECTURE THEATRE BOOKINGS. As from Monday 10 May, Sponsors of Lectures wishing to book the Lecture Theatre should contact H.F. Norris, Room 21, Building R.20, Ext 484.

POST-GRADUATE EDUCATION CENTRE. Lecture on "The Role of a Unit System of Electronic Equipment in Nuclear Research", to be given by Mr. H. Bisby, Electronics Division, A.E.R.E., Harwell on Wednesday, 2 June. Mr. Bisby will spend the day discussing and demonstrating the Harwell 2000 series system. Applications to attend this lecture 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.

VISIT. About 40 members of the Mathematical Society, Royal Holloway College, will visit the Rutherford and Atlas Laboratories on Wednesday, 12 May.

ENDEAVOUR PRIZE ESSAY. Prizes totalling 100 guineas are offered by Imperial Chemical Industries Ltd., publishers of the international scientific review ENDEAVOUR, for essays submitted on scientific subjects. In addition to the cash prizes, the prize winners will receive invitations to attend the whole of the British Association meeting at Cambridge from 1-8 September, 1965. Accommodation will be provided in Cambridge and travelling expenses within the United Kingdom will be paid. The latest date for receipt of entries is 1 June, 1965. Further details will be available shortly from H.F. Norris, Bldg R.20 Ext 484.

OVERSEAS VISITS. Mr. K.H. Davies to C.E.R.N., 9.5.65. for twelve days, to discuss and study problems of operating and maintaining particle separators.

Mr. J.D. Delury to C.E.R.N., 9.5.65. for twelve days, to discuss problems of operation and maintenance in the Experimental Halls at C.E.R.N.

Mr. J.K. Robins to Munich and C.E.R.N., 10-12.5.65. for discussions with Siemens-Halske on Hall Probe development and also magnet stabilisation with Mr. E. Braunersreuther at C.E.R.N.

Mr. H.J. Down to America on 11.5.65. for 2-3 weeks during which time he will attend the instrumentation conference at Purdue University and also visit a number of leading American Laboratories to discuss Bubble Chamber and Spark Chamber data analysis techniques

Dr. C.M. Fisher to America, 11.5.65.-2.6.65., to attend the Purdue Conference and also to visit the Berkeley, Brookhaven and Argonne Laboratories for discussions.

Dr. R.F. Churchhouse, Mr. F.R.A. Hopgood and Mr. E.B. Fossey, Atlas Laboratory, to the U.S.A., 16.5.65.-13.6.65., to attend the International Congress on Information Processing (I.F.I.P. Congress) in New York and to visit various computer installations in the U.S.

Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
9 May	Oxford University	Total Reaction Cross-sections
10 May	Imperial College	A Satellite Counter Test
11-12 May	RHEL and Queen Mary College	(p,n) Reactions by Time of Flight Method.
13-14 May	Queens Univ., Belfast and Westfield College	Preliminary Run for (p-d) Polarization Measurement.
15-16 May	Manchester University	(p, α) Scattering from Lithium.

Internal Events

Mon., 10 May, 11.15 a.m., Main Conf. Rm., R.1	Nimrod Lecture Series	Dr. G.A. Rebka (Yale Univ.)	Dynamic Orientation of Nuclei in Solid Deuterium
Mon., 17 May, 11.15 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. J.C. Sens (C.E.R.N.)	Muonic X-Ray Measurements

External Events

Mon., 10 May, 5 p.m., Univ. of Reading.	Phys. Dept. Colloq.	Dr. E.G.S. Paige (RRE, Malvern)	Acoustic Amplification and Related Acousto-electrical Effects in Semiconductors
Tues., 11 May, 2.30 p.m., 21 Banbury Rd, Oxford.	Nuclear Phys. Seminar.	B.M. Seppelt (Oxford)	Radiative Capture of Neutrons in Heavy Nuclei
Wed., 12 May, 5.30 p.m., Imp. Coll., London.	Inst. of Phys and Phys. Soc. Meeting.	Dr. A. Venema (Philips, Eindhoven)	A Review of Current Trends in Vacuum Physics.
Thurs., 13 May, 4.15 p.m., Clarendon Lab., Oxford.	Theor. Phys. Seminar	Prof. R.E. Peierls	Decaying States in Quantum Mechanics.

18-21 May: Radio and Electronic Component Show, at Olympia. Tickets are now available from H.F. Norris Bldg R.20, Ext 484.

A.E.R.E. Tues., 11 May, 2 p.m., Conf. Rm., Bldg 8.9.	Theor. Phys. Seminar	Dr. H. Bennett (Harwell)	Spin Diffusion in Heisenberg Ferromagnets.
---	----------------------------	-----------------------------	---

Social News

DARTS TOURNAMENT. The entry fee for the Darts Tournament to be held on 21 May is 5/- per person. The fees should be given to Mr. B. Keen, R.18 Stores not later than Friday, 14 May.

RECORD PROGRAMME. 12.30 p.m., Tuesday, 11 May, No.4 Conference Room, Building R.1.
Russian Folk Music.

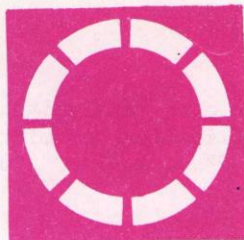
The programme for Tuesday, 11 May will consist of extracts from a record entitled
Caviar, Violins and Vodka. The soloist is Sergei Nicholevitch.

CHRISTIAN FELLOWSHIP. The next meeting of the Group will be on Wednesday, 12 May,
1-1.30 p.m., in the P.L.A. Conference Room, R.12, when the Rev. David Mills of the
Congregational Church, Tilehurst, will speak on "The Nature and Person of the Holy
Spirit". All are welcome. Further details from B.E. Kingdon, R.20, Ext 6297.

Date for your diary: 13-19 May, International Photo-Cine Fair, at Olympia, London.

Rutherford Laboratory
7 May 65

H.F. Norris Ext 484
Scientific Administration Group
Building R.20



No 18/65
17 May 65

General News

B.B.C. T.V. At 7.45 p.m. on Tuesday, 18 May, a programme called "The Proton Synchrotron" can be seen in the "Tools of Science" series on B.B.C.2. The programme includes sequences on NIMROD and the P.L.A. Professor Merrison, Director of the Daresbury Laboratory, talks about accelerators and their principles of operation. Professor Powell from Bristol University talks about the information on fundamental particles that the proton synchrotrons are providing.

B.B.C. Radio - Third Programme. On Wednesday, 19 May at 8 p.m. "Elementary Particles" a report by Christopher Holme, in conversation with Professors C.F. Powell, C.C. Butler, R.H. Dalitz, A.W. Merrison, P.T. Matthews and A. Salam. This is followed at 9.25 p.m. by a discussion, chaired by John Maddox on "What are the immediate problems facing sub-atomic physics", "How can they be tackled" etc. These and other questions are discussed by John Charap, Imperial College London, R.J. Eden of the Cavendish Laboratory and Professor Denys Wilkinson of the Clarendon Laboratory.

B.B.C. Radio. Third Programme, 24 May at 8.30 p.m., talk by Dr. I.J. Good, Atlas Laboratory on "The Human Preserve". In this speculative talk it will be argued that the galaxy has probably already been taken over by ultra-intelligent beings; especially if telepathy is possible. All ultra-intelligent life in the universe might be in telepathic communication. The purpose of human life is to join this cosmic club. This end is most likely to be achieved with the help of ultra-intelligent machines.

SAFETY SECTION. The Safety Section has now moved from Building R.16 to Building R.13. A notice is being issued giving details of Telephone numbers.

VISITORS. About 20 people attending the E.S.O.N.E. (Euratom Electronic Engineers) Meeting at A.E.R.E. will tour the Laboratory on the morning of Thursday 20 May.

CONFERENCES. The Institute of Physics and the Physical Society have arranged the following conferences and symposia to be held in 1965:-

- 10 June : Symposium on "Quantitative Aspects of Hearing", at the N.P.L. Teddington commencing 10 a.m.
- 5-6 July : "Low Level Radioactivity Measurements", at the Imperial College of Science & Technology, London.
- 12-17 July: "XII International Spectroscopy Colloquium", at the University of Exeter.
- 15-22 July: III International Conference on "Education in Physics", at London.
- 7-9 Sept : "Internal Friction in Solids", at the University of Manchester.
- 6-17 Sept: "Ninth International Conference on Cosmic Rays" at the Imperial College of Science & Technology, London.
- 15-17 Sept: "Nuclear and Particle Physics", at the University of Liverpool
- 23-24 Sept: "Non-Metallic Thin Films", at the Chelsea College of Science & Technology London.
- 27-30 Sept: "Optics in Space", at the University of Southampton.
- 18-19 Nov : "Computational Methods in Crystallography", at the I.E.E. London.

INTERNATIONAL SCHOOL OF PHYSICS. Preliminary details of the 1965 International School of Physics have been received. The school will be held at Trapani - Erice, Sicily from 27 September-10 October and the subject will be "Structure of Elementary Particles". Further information is available from H.F. Norris, R.20, Ext 484.

MICROELECTRONICS SYMPOSIUM. Advance details have been received on a symposium of over thirty papers, concentrating primarily on the applications of microelectronics, to be held at the University of Southampton from 21 to 23 September, 1965. Further details from H.F. Norris, R.20 Ext 484.

OVERSEAS VISITS. The Director will visit CERN on Friday, 21 May returning on Saturday 22 May.

Mr. P. Seager, to CERN 17-20 May for discussions with the Hydrogen Bubble Chamber team.

Dr. L.K. Rangan, to CERN 18 May for discussions and to attend Track Chamber Committee meeting.

OXFORD KINEMATICAL TABLES. A number of sets of the Oxford Kinematical Tables (a Clarendon Laboratory - N.I.R.N.S. publication, giving the kinematics of certain two-body elementary particle reactions), can be made available to bona fide enquirers. Members of staff and visitors who may be interested are asked to contact B.E. Kingdon, Scientific Administration, R.20, Ext 6297 for further information.

BULLETIN MATERIAL. Contributors of information for publication in the Rutherford Laboratory Bulletin are reminded that information for a particular week should be with the Editor by mid-day on the preceeding Wednesday. Stop press information can be included if received by 9 a.m. on Thursday. Whenever possible contributions should be in writing and should be sent to H.F. Norris, Room 21 Building R.20.

Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
17-18 May		Maintenance
19 May	RHEL	Accelerator Physics
19 May	Exeter Univ.	Chemists Irradiations
20-26 May	AERE	Sn (p,d) Reaction Studies using the N ₂ Analysing Magnet.

Internal Events

Mon., 17 May, 11.15 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. J.C. Sens (CERN)	Muonic X-Ray Measurements
Wed., 19 May, Thurs, 20 May, Lecture Theatre	12.45 p.m. 1.15 p.m.	Film	"Of Men and Matter" an A.E.C. 29 minute colour film

This film describes the design, development and operation of the Alternating Gradient Synchrotron at the Brookhaven National Laboratory. Apart from showing various major components of the machine and its role in physical research an actual experiment involving a bubble chamber is shown together with the methods adopted in scanning and analysing the photographs produced.

Mon., 24 May, 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. M. Ferro-Luzzi (CERN)	Title to be announced.
---	-----------------------------	------------------------------	------------------------

External Events

Tues., 18 May, 2.30 p.m., 21 Banbury Rd, Oxford.	Nuclear Phys. Seminar	Prof. G.R. Bishop (Glasgow)	Scattering of Electrons by p-shell Nuclei
Fri., 21 May, 4.15 p.m., Clarendon Lab., Oxford.	Colloq.	Prof. J. Tuzo Wilson (Churchill College Cambridge)	Towards a new Physical Theory of the Earth's Behaviour

I.E.E. MEETINGS: The following meetings will be held at the Institution of Electrical Engineers, Savoy Place, London, W.C. 2. at the time and date indicated:

Electronics Division Conference on "Components and Materials Used in Electronic Engineering" - 17-20 May.

Science and General Division Colloquium on "Random Signal Testing", on Tuesday, 18 May at 3.30 p.m. and 5.30 p.m.

All Divisions Annual General Meeting, Thursday, 20 May, at 5.30 p.m. followed at approximately 6.30 p.m. by a colour film entitled "The Forth Road Bridge".

A.E.R.E.

Tues., 18 May, 2 p.m. Conf. Rm, Bldg 8.9	Theor. Phys. Seminar	Dr. Y. Yafet (Harwell)	Contributions from Conduction Electrons to the Field Gradient at the Nucleus
--	----------------------------	---------------------------	--

Social News

Date for your diary: 25-28 May, Chelsea Flower Show.

CRICKET RESULT: Evening Cricket League, Division I. Nimrod beat P.L.A. by 9 wickets on Monday 10 May.

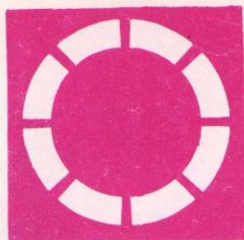
RECORD PROGRAMME: Tuesday, 18 May, 12.30 p.m., Lecture Theatre.

Jazz from Charlie Parker Charlie Parker ("the Bird") is one of the towering figures in the development of jazz. From the mid 1940's until his tragic death in 1955, his alto sax playing revolutionised jazz as dramatically as the classical composers earlier on this century had broken through their conventions. The selection to be played will be taken from the Charlie Parker Memorial Album and Portrait of the Bird. It will include the famous "Lover Man", recorded at the session where Parker collapsed, to be carried off to a nursing home for a year. The tension of this occasion can be heard in Parker's playing. Miles Davies can also be heard on most of the recordings.

FILM SHOW: See "Internal Events" for details of the next film show on Wednesday and Thursday.

Rutherford Laboratory
14 May, 1965

H.F. Norris, Ext 484
Scientific Administration Group
Building R.20



No 19/65
24 May 65

General News

DISCUSSION ON ELEMENTARY PARTICLES. The discussion which followed the feature programme on "Elementary Particles" on the B.B.C. Third Programme on 19 May, was taped and will be played back in the Lecture Theatre beginning at 12.45 p.m. on Friday, 28th May. (The programme lasts 45 minutes). The discussion was chaired by John Maddox, and John Charap, R.J. Eden and Professor Wilkinson talked about unitary symmetry, S matrix theory, quarks finishing with the next generation of accelerators.

The feature programme "Elementary Particles" in which Professors Powell, Butler, Dalitz, Matthews and Salam review the history and present state of elementary particle physics was also recorded and can be presented in the Lecture Theatre if there is sufficient interest in the Laboratory (Contact H.F. Norris Ext 484). This programme is one hour, ten minutes long.

OVERSEAS VISIT. Mr. E.G. Higgins, to Rome, 25 May-5 June, to attend XI International Congress of Surveyors and to present a paper on the alignment of Nimrod.

FORTHCOMING CONFERENCES ETC:-

14 June-20 Aug.	Eighth Annual Summer Institute for Theoretical Physics, Boulder, Colorado, U.S.A.
16-22 June,	International Accelerator Conference, Frascati, Rome.
28 June-2 July,	3rd International Vacuum Congress, Stuttgart, Germany.
1 July-25 Aug.,	Summer School for Theoretical Physics, Haut Savoie, France.

Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
24-26 May	A.E.R.E.	Sn (p,d) Reaction Studies using the N_2^{14} Analysing Magnet
27-31 May	R.H.E.L. and Queen Mary College	(p,n) Reaction by the Time of Flight Method

NIMROD 2 GeV operation - Cycle 2 (24.5.65.-4.6.65.)

Extraction Studies (External proton beam)
Machine Physics
High Energy Physics:-

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	
AERE/UCL/ Southampton Univ.	P.3	Study of $\pi^- + p \rightarrow \begin{pmatrix} n + x \\ p + x \end{pmatrix}$	Setting up
UCL/Bristol Univ.	P.3X	Study of the η^0 meson	Setting up
AERE/QMC	P.6	Proton-proton inelastic scattering	Setting up
Imperial Coll.	ϕ^1	Study of the $\phi \rightarrow e^+ e^-$ decay	Setting up
Hydrogen Bubble Chamber Collaboration	K1	Investigation of low energy experiment	Setting up

Internal Events

Mon., 24 May, 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. M. Ferro-Luzzi (C.E.R.N.)	(i) Evidence of a Meson Resonance with Strange- ness + 2 (ii) (K^+p) Interactions near 1 GeV/c
Mon., 24 May, 2.15 p.m. Lecture Theatre	Nimrod Proposals for Experiments	Prof. E.H. Bellamy (Westfield College)	A Proposal to Measure the Decay Parameters of the Σ^+
Wed., 26 May, 2 p.m., R.12. Conf. Rm.	P.L.A. Div. Seminar	Dr. N.K. Ganguly (R.H.E.L.)	Possible Experiments on Mg^{24} using the N_2 Magnet
Thurs., 27 May, 11 a.m.-5 p.m. Lecture Theatre	Symposium for Nimrod Users		Second Generation Spark Chambers.
Mon., 31 May, 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. F.J.M. Farley (C.E.R.N.)	The Extinction Theorem in Optics and Tests of the Second Postulate of Special Relativity.

Fri., 28 May, 12.45 p.m., Lecture Theatre: Tape recording of the B.B.C. Third Programme Discussion on "Elementary Particles" (See General News for more details of this event).

External Events

Wed., 26 May, 2.15 p.m., Phys Dept. Imp. Coll.	Inst. of Maths Symposium	(Various speakers)	How to Teach the Art of Approximation
Wed., 26 May, 7.30 p.m., Royal Oak, Woodstock Rd, Oxford.	A.S.E.E. Branch Lecture	Major N.H. Woods (Glendon Research & Dist. Co. Ltd.)	Electricity Made Safe
Thurs., 27 May, 4.15 p.m., Clarendon Lab., Oxford.	Theor. Phys. Seminar	Dr. J.C. Taylor	Relativistic Super-Multiplet Theories-Problems and their Possible Solutions.
Fri., 28 May, 4.15 p.m., Clarendon Lab., Oxford.	Colloq.	Prof. H. Lustig (University College Dublin)	The Mossbauer Effect and Aspects of the Quantum Theory of Measurement
Fri., 28 May, 7.30 p.m., The College Regents Green, Swindon.	A.S.E.E. Branch Lecture	Mr. R.F. Seaborne (Texas Inst. Ltd)	The Design and Manufacture of Circuits in Integrated Form.
A.E.R.E. Tues., 25 May, 2 p.m., Conf. Rm., Bldg 8.9.	Theor. Phys. Div. Seminar	Mr. A. Curtis (A.E.R.E.)	Future Computing at Harwell

Social News

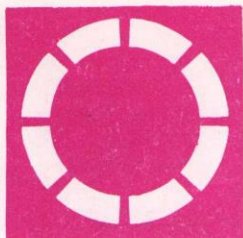
CHRISTIAN FELLOWSHIP. The Group meets on the second and fourth Wednesday of each month in the P.L.A. Conference Room, R.12 from 1-1.30 p.m. The next meeting will be on 26 May when Mr. D.N. Wilson of the P.L.A. Accelerator Physics Group will lead Bible Study on the First Epistle of John, Ch. 5, vv. 1-12. Further details from B.E. Kingdon, R.20 Ext 6297.

RECORD PROGRAMME. Lecture Theatre, 25 May, 12.30 p.m., The programme this week is a stereo recording of Stravinsky's "The Rite of Spring". This was the most revolutionary of the three ballet scores ("Petroushka" and "The Firebird" being the other two) with which Stravinsky opened a new era of music at the beginning of this century. So complete a change was this work from the conventional classical forms that Stravinsky did not know how to write down in musical notation the composition he had put together at the piano. Despite the musical sophistication, the mood is primitive and exciting.

Rutherford Laboratory
21 May, 1965

H.F. Norris, Ext 484
Scientific Administration Group
Building R.20

No. 20/65
31 May 65



Rutherford Laboratory Bulletin

General News

TALKS ABOUT NINA. The Daresbury Laboratory's Electron Synchrotron NINA, will be commissioned in the summer of next year. Three talks have been arranged, which, it is intended, will give technical but non-specialist audiences a general appreciation of the design, construction and application of the accelerator. These talks will be given on 9, 16 and 23 June and details of the first talk will be given in the Internal Events section next week.

SYMPOSIUM. The Institution of Electronic and Radio Engineers and the Institution of Electrical Engineers are holding a joint symposium on "Microwave Applications of Semiconductors" at University College London, from 30 June to 2 July 1965. Further information can be obtained from H.F. Norris Bldg R.20, Ext 484.

ELEMENTARY PARTICLES. The feature programme given on the B.B.C. Third Programme on 19 May in which the history of Elementary Particle Research and its present state, with emphasis on Unitary Symmetry Theory was discussed, was, as mentioned in Bulletin No.19/65 recorded. This programme will be presented in Conference Room No.4, Building R.1 at 12.45 p.m. on Wednesday, 2 June.

EXTERNAL COURSE. The following course will be held at the Borough Polytechnic, London, S.E.1.:

"Digital Circuit Techniques", a two week course of lectures, from 21 June to 2 July, 9.30 a.m. to 4.30 p.m. each weekday. The fee for the course will be £15. Further information may be obtained from Mrs. M.C. Gould, Personnel Branch, Building R.20, Ext 575.

Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
31 May	RFEL and Queen Mary College	(p,n) Reaction by the Time of Flight Method.
1 June	Exeter Univ. and AERE	Chemists Irradiations
2-5 June		Maintenance
6-9 June		P.P.S. Commissioning and Tests

Internal Events

Mon., 31 May, 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. F.J.M. Farley (CERN)	The Extinction Theorem in Optics and Tests of the Second Postulate of Special Relativity.
Wed., 2 June 12.45 p.m.: Thurs., 3 June 1.15 p.m.: Lecture Theatre		Film	"Strangeness Minus Three" A B.B.C. film

This is a film made as a B.B.C. T.V. programme - produced by Philip Daly. It is concerned with the famous discovery of the Ω^- meson at the Brookhaven National Laboratory in February, 1964. (This particle has strangeness quantum number = -3). Richard Feynmann is interviewed at the end of the film and discusses what the identification of this particle means for the Unitary Symmetry theory of elementary particles.

Thurs., 3 June, 11 a.m. - 12.30 p.m., P.L.A. Conference Room, R.12: Lecture-Demonstration (by courtesy of Advance Electronics Ltd.,) on the new Omnigraphic Recorder, Type 6550; given by Ed. Hardway Esq., (Chairman and Technical Director of the Houston Omnigraphic Corporation). This recorder is specially designed for use with high speed multi-channel analysers or in computer data plotting. Further information may be obtained from B.E. Kingdon, Bldg R.20, Ext 6297.

External Events

Tues., 1 June, 2.30 p.m., 21 Banbury Road, Oxford.	Nuclear Phys Seminar	A.D. Hill (Oxford)	Theory of p, γ Reactions in O ¹⁶ .
Thurs., 3 June, 4.15 p.m., Clarendon Lab., Oxford.	Theor. Phys. Seminar	Dr. J.G. Valatin (Birmingham)	The Competitive Effects of Pairing and Magnetic Fields in Superconductors
Fri., 4 June, 4.15 p.m., Clarendon Lab., Oxford.	Colloq.	Dr. K.V. Roberts (Culham Lab)	The Use of Computers in Scientific Research

Social News

RECORD PROGRAMME. Tues, 1 June, 12.30 p.m. in the Lecture Theatre.

This programme is another in the series of Sibelius symphonies, symphony No.3 will be played, which contrasts strongly with the No.4 played last month. The stark scoring of No.4 is missing and the orchestral writing is much richer. The whole symphony, which is very straight forward and classical in form, makes for very easy and pleasant listening. This particular recording is of Anthony Collins and the London Symphony Orchestra.

The programme commences with the "Maskarade" Overture by Nielsen. Karl Nielsen was a Scandanavian composer (Danish) contemporary with Sibelius. He has not achieved the popularity which Sibelius has, apart from a wave of acclaim about ten years ago which was not sustained. His music has an individual flavour and is easily enjoyable, as will be appreciated from this lightweight overture.

FILM SHOW. See "Internal Events" for details of the film to be shown next Wednesday and Thursday.

Rutherford Laboratory

28 May, 1965.

H.F. Norris Ext 484
Scientific Administration Gp.
Building R.20