

Open Days
8-12 July 1980
at Chilton, Oxfordshire



Quarks to
Quasars

8-12 July 1980

At the Science Research Council's Rutherford and Appleton Laboratories we support research and development work over a wide range of scientific and engineering disciplines in collaboration with Universities, Polytechnics, Government Departments and Industry. We are holding a series of Open Days on 8-12 July 1980 and I hope you will accept this invitation to visit the Laboratories at Chilton, in Oxfordshire, to see something of our work.

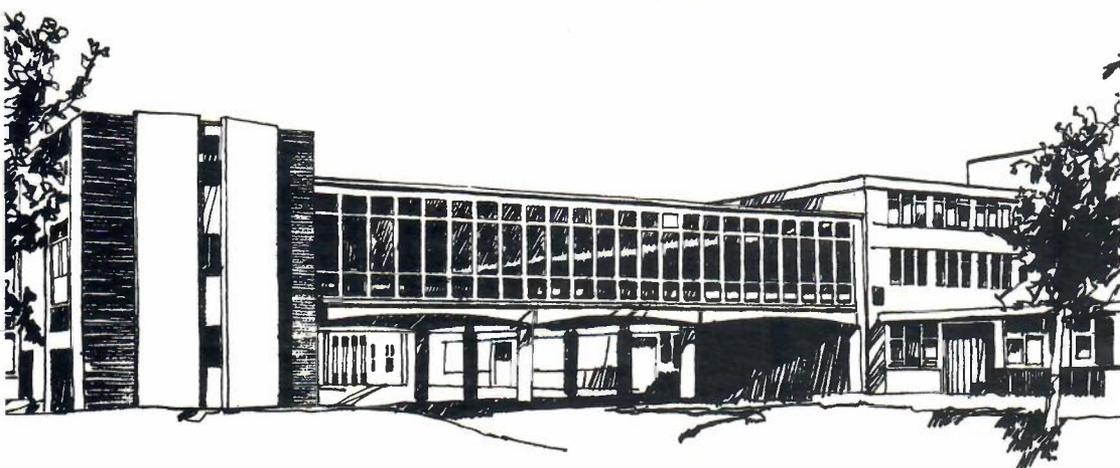
Our scientific interests span a wide range of basic research in many fields. We have therefore chosen the title "Quarks and Quasars" as our Open Days theme, to cover the range of investigations from the smallest particles (quarks) inside the nucleus through to those compact sources of enormous energy (quasars) located near the edge of the observable universe.

Many areas of interest within this theme will be on display, including particle physics, neutron beam research, laser produced plasmas, geophysics and radio research, astrophysics and space science. Support for technology and engineering will be illustrated by displays of the Laboratories' work in electron beam lithography, superconductivity, energy research and instrumentation. The extensive computing capability and various applications will also be on show.

Further details of the arrangements for a particular day are given on the enclosed sheet, which contains a reply postcard.

I do hope that you are able to come and I look forward to seeing you at the Open Days.

G H Stafford
Director General



Exhibits

There will be nine exhibition areas, as indicated on the plan:

Reception: On arrival, guests are asked to report to the Reception area in Building R1 where guide books and name tags will be available.

1.

The Central Exhibition will highlight the Laboratories' activities, related to the theme: "Quarks to Quasars". It serves as a brief introduction to the other exhibition areas.

2.

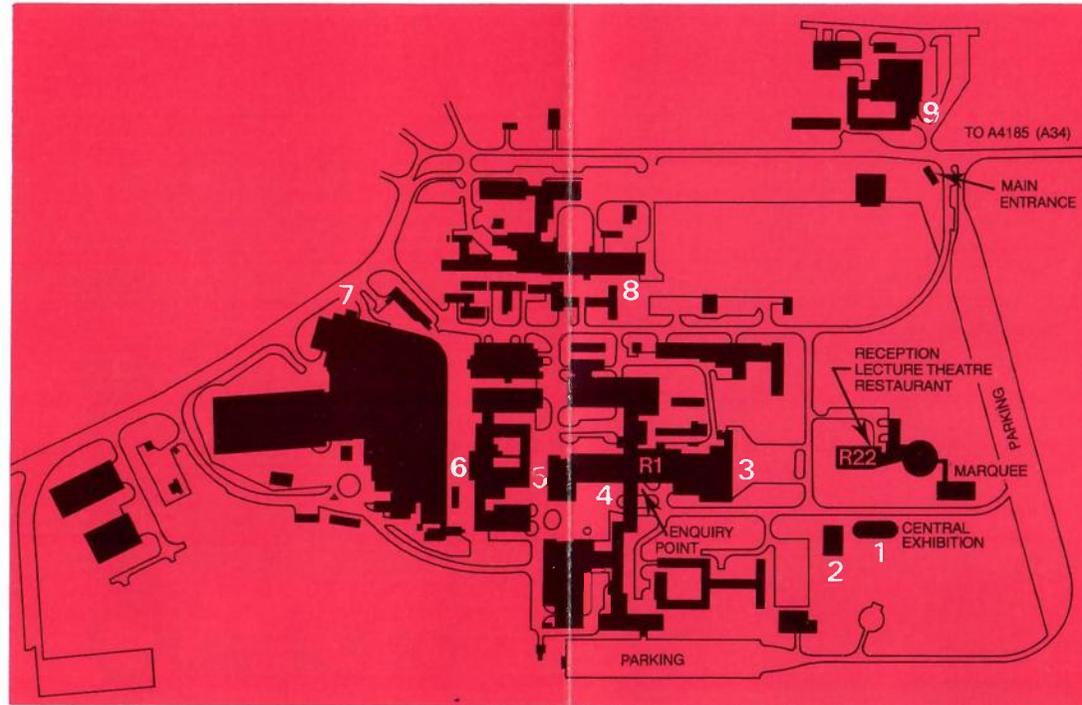
Radio and Space Centre: The displays will include solar-terrestrial physics, communications, remote sensing of the Earth and Planets and space astronomy.

3.

Several topics will be on display, including the design and fabrication of microelectronic circuits, the Control Centre for the Infra-Red Astronomical Satellite project, a laboratory for scanning bubble chamber film in particle physics research, careers information and a display of architecture and engineering projects.

4.

The foyer of Building R1 will display the role of the Science Research Council and on the first floor, in the Main Library, there will be a display of publications and a demonstration of computer-aided information retrieval.



5.

The Central Laser Facility will exhibit the fabrication of micro-balloon targets, the high power laser and two experimental areas. A high current electron beam device, used to develop new high power laser systems, will also be on show.

6.

A technology exhibit will highlight various projects at low and high temperatures and recent advances in materials and structures. A stabilised balloon platform, used in space research, will be on display. An exhibit on neutron beam research will demonstrate the development of new instruments and techniques in this field, particularly for use with the Spallation Neutron Source. The preparation work for this powerful source of neutrons, currently under construction on site, will be highlighted.

7.

The 70 MeV linear accelerator, which is the injector for the Spallation Neutron Source, will be open for inspection.

8.

Particle physics and special apparatus. Several of the major international experiments in particle physics research will be on show, including some examples of the sophisticated apparatus and electronics required for this work and in other fields. The Laboratories' work in support of energy research will be on view.

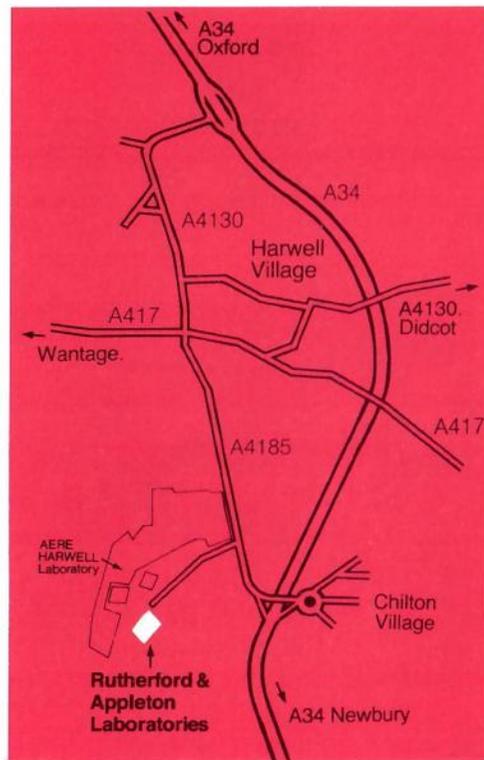
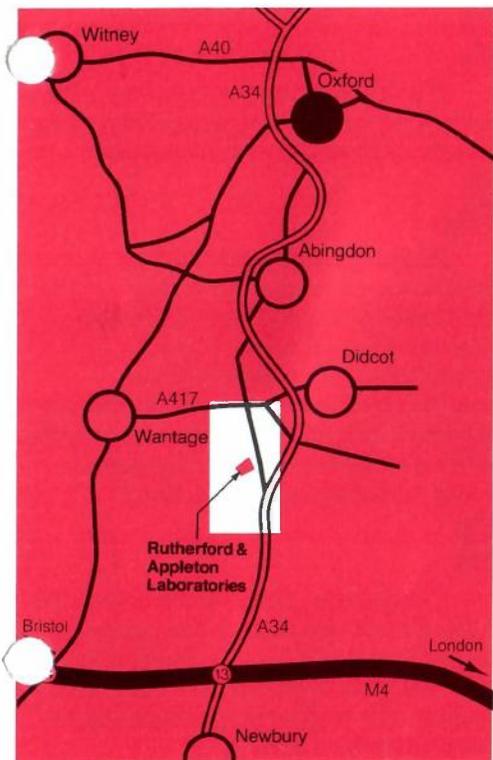
9.

Computing. The exhibits within the Atlas Centre will outline the extensive computing facilities available and the wide range of applications in the fields of science and engineering. There will be demonstrations involving communications and interactive computing techniques.

Film show. There will be a programme of films in the Lecture Theatre (Building R22) shown at regular times throughout the Open Days.

Enquiry points will be located at the Reception and in the entrance foyer to Building R1.

Routes to Chilton, Oxfordshire



By Air — Chilton is a 1 hour car journey from London's Heathrow Airport. Follow the M4 motorway westwards to interchange 13, then head northwards on the A34.

By Rail — Chilton is 6 miles south-west of Didcot Station, providing connections with London (Paddington), Birmingham, West of England and South Wales. Buses will meet trains at Didcot Station during the period 9-11 July 1980. Return buses to the Station will depart from the Reception area.

Routes near the site will be signposted by the RAC ("RAL Open Days").



Quarks to Quasars

Please address enquiries to:

Open Days Secretariat
Rutherford and Appleton Laboratories
Chilton, Didcot, Oxfordshire OX11 0QX
Tel: Abingdon (0235) 21900 Ext. 6114 or 553

Telex 83159 Telegrams Ruthlab Abingdon