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First Edition



RUTHERFORD LABORATORY ARCHIVES

A Pilot Scheme

P K Gamse

May 1979

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Chilton
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A B S T R A C T

Although the Lord Chancellor's Office have ruled that the Rutherford Laboratory is not under a legal obligation to keep Archives, the Public Record Office consider that the Laboratory papers are worth preserving. A pilot scheme was therefore set up in July 1978 to investigate the feasibility of such a project.

ACKNOWLEDGEMENTS

My thanks are primarily due to Elizabeth Marsh, the Librarian, whose brainchild the Archives were, and to Caroline Macdougall and the rest of the Library staff who endured their birth pangs. I should also thank Ann Walter and Kate Crennell who set up the cataloguing procedures for me, and Dr. C.J. Webb for his patient tuition on the computing side, and all the other people, too numerous to mention who helped me throughout the year with their papers, comments, and suggestions.

RUTHERFORD LABORATORY ARCHIVES
A Pilot Scheme

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Chapter 1: THE NEED FOR ARCHIVES

1.1 BACKGROUND

The Rutherford Laboratory was founded in 1957 as a national research centre for nuclear science, and was particularly intended for the use of universities whose individual resources could not provide the necessarily complex equipment. The most important early projects were the 50 MeV Proton Linear Accelerator which operated from 1960 to 1969, and the 7 GeV Proton Synchrotron, Nimrod, which was used for High Energy Physics experiments from 1964 till 1978.

At the peak of its operation, over 200 physicists from universities and other institutions, both British and Overseas, based their research on Nimrod, and a vast amount of material was built up covering many aspects of the work of the Laboratory.

1.2 THE PRESENT SITUATION

Although there was a Record Office which collected Nimrod papers for a time, the Rutherford Laboratory has never had a cohesive archival policy, and following the closure of the Record Office these papers were gradually dispersed and often discarded at random. Thus documents concerning Nimrod and many other projects of relevance to the history of science may be found throughout the site, some files being incomplete, and many needlessly duplicated. Due to the lack of central organisation only very tentative estimates have been made regarding the present amount of material which is in need of indexing and sorting. (See Chapter 4).

1.3 NON-ARCHIVE MATERIAL

It was proposed that scheduled Laboratory records - that is, those documents which are required by law to be kept for a certain period of time, would mostly continue to be dealt with by their respective Departments, thus Personnel would keep their own files, as would the Finance Section, and the Health and Safety Group. The Archives would also exclude engineering drawings, which are stored within the Division, and external Rutherford Laboratory Reports which are held in the Library.

THE NEED FOR ARCHIVES

1.4 UNSCHEDULED RECORDS

The Archives therefore consist mainly of those records which are classed as unscheduled, including Committee Minutes and Papers, Internal Reports, Correspondence, material relating to the commissioning and running of projects, design data, logbooks, etc., and also the Personal Papers of senior members of staff.

Chapter 2: ACCESSIONING

2.1 OPENING CATEGORIES

Because the Laboratory had had no previous record-keeping policy, it was necessary to devise from scratch a classification scheme which could incorporate classmarks already in existence, which would be suitable for computer-indexing, and which would provide the searcher with a comprehensible reference system. It was decided to prefix each Archival classmark with a category giving a broad indication of the subject or type of record in question. Eleven such categories have been allocated so far, and are set out in the following table:

Table 1: ARCHIVAL CATEGORIES

| <u>CATEGORY</u> | <u>CONTENTS</u> |
|------------------|--|
| A | Administrative material |
| AP | Applied Physics Division material (now Technology Division) |
| BC | Bubble Chamber material |
| EPIC | Electron Proton Intersecting Complex material |
| HEP | High Energy Physics Division material |
| NIM | Nimrod Papers |
| P | Personal Papers |
| PLA | Proton Linear Accelerator material |
| PRO | Material relating to various smaller projects |
| Sci Ad (2 words) | Scientific Administration Group material |
| VEC | Variable Energy Cyclotron material |

ACCESSIONING

2.2 DOCUMENTS WITH AN ORIGINAL CLASSMARK

Files containing Committee Minutes and Papers, or numbered Internal Reports, were very often accurately labelled and sometimes also indexed. Once pieces of metal, such as staples or clips, had been removed from these, they normally required little further sorting, and could be allocated to their appropriate category. The new Archival Reference would then consist of the catalogue prefix, followed by the original classmark. Thus Nimrod Hall 3 Management Committee was already classed as H3MC, and so became NIM-H3MC. In the case of material coming under category A, it was found convenient to differentiate those files concerning the pre-1965 period, shown by the letters NI (for NIRNS) from those produced after the creation of the SRC, designated by the letters RL, (although the name of the Laboratory has always been the same). To facilitate boxing and computer listing, Scientific Committees were divided from those which were purely Administrative. Both of these distinctions had formerly been made by Committee Secretaries.

2.2.1 FILING OF THESE RECORDS

In accordance with what seems to have been common Laboratory practice, Minutes, Papers, and Correspondence were usually filed separately, unless the Minutes were officially numbered as being Papers of the Committee. Agenda sheets were normally retained only if they had been given a formal number, if there was no other record of the Meeting to which they referred, or if they had been used for rough notes or comments, and in these cases they were kept with the Minutes. The Archival Reference would then indicate by a single letter whether the file contained Papers (P), Minutes (M), or Correspondence (C). Odd Papers which had originally remained unclassified were arranged and numbered in chronological order, with Misc before the P to distinguish them from Papers of the same Committee which had been initially classmarked. Documents of the Selection Panel were exempted from this rule and were numbered according to the Meeting at which they were discussed.

2.3 MATERIAL WITH NO ORIGINAL CLASSMARK

This type of file usually required more attention, since, in order to form a coherent collection it was decided to remove all ephemeral documents, and also those which would be more logically placed elsewhere (although this was probably archivally incorrect, since the original form of the file was lost). Thus, provided that they did not contain rough notes or comments, in which case they were not moved, any Committee Papers or numbered Internal Reports appearing among Correspondence were resorted into the relevant file, or, if a copy was found already to exist, destroyed. Rutherford Laboratory External Reports were given to the Library, and all material produced by outside establishments was discarded as irrelevant (Reports of other Laboratories were again donated to the Library). Routine

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material, for instance a letter concerned purely with the travel arrangements of a visitor to the Laboratory would be weeded out, unless this constituted the only record of the event. Only one copy of a duplicated business letter was kept, with a note of the other Correspondents attached.

2.4 COMBINING FILES

A problem often encountered was that files received from different sources which related to a particular project could cover largely the same ground and be found to contain much duplicated material, such as copies of letters, Reports, etc. To deal with these, subject headings were created which reflected as clearly as possible the original organisational structure of each project, the files were then combined according to these headings, and the Papers arranged in chronological order so that duplicates could be easily identified and discarded. For the sake of clarity, where there were a lot of documents dealing with one sub-section of a project, Papers, Minutes and Correspondence were again kept separately. Obviously this method destroyed the original files, but it was considered preferable for ease of future reference and the avoidance of unnecessary repetition.

2.5 CLASSIFYING

Once a file had been weeded and sorted, it was allocated to a broad category, and a suitable classmark was devised to follow this, its component parts being divided by a dash. The method of classifying varied according to the subject matter. A large project covered by several files would be designated by letters, or by a combination of letters and numbers, e.g. 70MeV (the new injector for Nimrod), or LIB-BLDG, which refers to the construction of the Library, and the individual files within this grouping were sequentially numbered. Papers produced by Committees which had not been officially numbered were classified by taking the initials of the body concerned, thus Fire Committee became FC. Subjects of other files were described by the smallest possible combination of letters or numbers (again initials were often used), e.g. RAD for material dealing with radiation problems, PR for Public Relations, PAT for patents. Great care was necessary to ensure that the same combination was not allocated twice, for instance, the Steering Committee and the Safety Committee should not both be classed SC, as, although the human brain could differentiate between these, the computer could not. There is a handwritten list of combinations which could be input and sorted on the computer to make it more easily updated for checking purposes.

Chapter 3: COMPUTING

3.1 THE HARDWARE USED

Although the Library use the house system ELECTRIC for inputting on-line files via a computer terminal, it was decided to place the Archives on the GEC 4080 Data Editing Machine, which is more suited to handling text. Both systems submit jobs to be run on the IBM 360/195 and files are transferable between the two so that the Archives data could be moved onto ELECTRIC. However, because of space problems and the necessity for rewriting procedures it is unlikely that this would be considered practical.

3.2 THE SOFTWARE USED

The Archives Catalogues are produced using the suite of programs called FAMULUS, a general purpose documentation system for textual data devised by Theodore B. Yerke, a Librarian, in 1969. It can sort entries into alphabetical or numerical order, search for specific items, produce word and subject indexes, is flexible and relatively simple, and compares favourably with the Public Record Office package PROSPEC, which is similar in many respects. FAMULUS was already in operation at the Laboratory for running the Library catalogues, and was therefore readily available so that no other system has yet been considered, although this would of course be possible.

3.3 STRUCTURE OF A FAMULUS FILE

A FAMULUS file consists of any number of records - a record being all the data for one document or paper file. Each record is broken down into ten or less sections which correspond to different aspects of this information and are called fields, and these can be labelled with any name consisting of four or less characters.

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3.3.1 ARCHIVAL STRUCTURE

All ten fields are used for the Archives Procedures, and are allocated as indicated in the following table:

Table 2: ARCHIVES **FIELDS**

| <u>FIELD LABEL</u> | <u>CONTENTS</u> |
|--------------------|--|
| I | Classmark |
| A | Author, except in the Personal Papers category where the field is labelled C for Correspondent |
| T | Title |
| K | Subject |
| P | Publishing Group or Place of origin |
| D | Opening date |
| E | Closing date |
| B | Box name |
| N | Notes |
| X | Free text field for explaining individual indexes |

Unlike PROSPEC and many other systems, the fields have no fixed format or length and this is useful when one field has several entries, as in the case of multiple-author papers. Fields must always appear in the same order, although not all have to be used every time, and each should begin on a new line. A completely blank line is left between records. There is a maximum allowance of four thousand characters per record, entered on up to fifty lines, which can be divided among the fields in any way. A twenty-field version also exists, and it would be possible to change to this if necessary.

3.4 COMPUTING PROCEDURES

A FAMULUS job is made up of a series of steps, each consisting of one FAMULUS program with its associated control instructions. The set of instructions for running one complete job is known as the Job Control Language, abbreviated to JCL. The EDIT program must always be run first to create a file from the given data on which the computer can work, but after that the programs can be combined in any order and used several times within one job.

COMPUTING

3.4.1 ARCHIVAL COMPUTING PROCEDURES

The Archival Procedures have so far used the programs set out in the following table:

Table 3: ARCHIVAL PROCEDURES

| <u>PROGRAM</u> | <u>FUNCTION</u> |
|----------------|---|
| EDIT | Creates a FAMULUS file from the given data, can be used for correcting mistakes |
| INDEX | This is used to provide an alphabetical subject index of terms in a given field, known as the "Descriptor field". In the archives JCL this is always set to the K-field. Terms are limited to a length of forty characters and are separated on input by a special character which has to be given in the JCL, at present this is set to a semi-colon. Each item in the index will give a number referring to the full entry for the document in the classmark index. |
| KWIC | This produces a context listing of all words in the title field, and, in order to prevent listing of insignificant words, e.g. and, if, the, but, a STOP-LIST is created consisting of those words which are not required. |
| MULTIPLY | This generates a new record for every separate entry in a multiple-entry field, for instance, lists a paper under each of its authors. |
| SEARCH | This selects records according to specific requests for certain words or numbers occurring in a given field, and, unlike the procedures described so far, will automatically print the results, unless instructed not to do so. |
| SORT | This rearranges the words in a FAMULUS file into alphabetical order, using any field or combination of fields as directed. |
| GALLEY | This prints out a FAMULUS file in one of several specified formats. |

3.5 EXISTING JCL FILES

Complete files of JCL to implement these procedures exist at present on the 4080 and can be used to process input data as required. The master file ARCHJCL contains all programs except SEARCH, thus generating a sorted classmark index, Author Lists, both KWIC and Subject Indexes, and Opening and Closing Date Lists. Box name listings are not produced, but it would be

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possible to do so. A file called STOP contains the STOP-LIST for all jobs and can be updated at any time. The SEARCH program is set up in the file ARCHSCH, and in order to use this the fields to be searched and the required string (i.e. series of words and/or numbers) must be filled in on the appropriate lines in the file. Examples of the sorted lists are appended.

Chapter 4: THE FUTURE

4.1 FUTURE ACCESSIONS

4.1.1 INDIVIDUALS

A preliminary survey was carried out to locate those individuals who might be willing to donate some of their papers to the Archives. The results of this enquiry may be found in a handwritten listing.

4.1.2 DIVISIONAL ACCESSIONS

The amount of Archival material that could be produced by each Division per year has been estimated as is shown in the following table:

Table 4: DIVISIONAL PAPER PRODUCTION

| <u>DIVISION</u> | <u>AMOUNT</u> | <u>COMMENTS</u> |
|----------------------------|---------------|--|
| ADMINISTRATION | Very small | Already have own system set up |
| ATLAS COMPUTING | Moderate | |
| COMPUTING & AUTOMATION | Very small | Quarterly reports, few other papers produced |
| ENGINEERING | Very small | Already have own record office |
| HIGH ENERGY PHYSICS | Moderate | Several committees |
| INSTRUMENTATION | Moderate | Several current projects producing papers |
| LASER | Very small | About 1' of committee material per year |
| NEUTRON BEAM RESEARCH UNIT | Very small | Little paper produced |
| SPALLATION NEUTRON SOURCE | Very large | Much paper production |

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| <u>DIVISION</u> | <u>AMOUNT</u> | <u>COMMENTS</u> |
|-----------------|---------------|---|
| TECHNOLOGY | Large | Many small projects producing material |
| THEORY | Very small | Produce mostly external reports, little other paper |

Because papers had never been kept on an organised basis, it was impossible to make the estimated amounts any more precise.

4.2 SUGGESTED FUTURE POLICY

4.2.1 REVIEWING OF RECORDS

It is envisaged that unscheduled records could be subject to a review system modelled on that of the Harwell Record Office, which was set up by Professor Margaret Gowing. This process would take place at five years after the closure of a file, and at twenty-five years after the date of the earliest entry. If the depositor of a file were still available for consultation, papers could be referred to him for review, otherwise this would be done by the records officer. This would avoid the accumulation of large amounts of ephemeral documents.

4.2.2 DRAWINGS

Nearly all blueprint drawings produced at the Laboratory since 1960 have been microfilmed, and it has been suggested that originals found in accessions could be removed, and a reference left in their place. The drawings could then be sent to the R25 Print Room where the staff would be willing to check them against their films. This would cut down considerably both on space in the Archives, since blueprints are very bulky, and on needless duplication, and would ensure an up to date microfilm collection.

4.2.3 DIVISIONAL CENTRES

A system has also been suggested whereby papers could be grouped together logically in files whose existence would be registered at a central point in each Division so that they could be transferred automatically to the Archives when they ceased to be in current use. This would reduce unnecessary duplication in adjoining offices, ease reviewing, and increase the efficiency of current work.

THE FUTURE

4.3 CONSERVATION

Three documents, a photographic copy, a zinc oxide coated paper electrostatic copy, and a spirit duplicated copy, which were typical of those to be found in the Archives, have been artificially aged at the Camberwell School of Art and Crafts. The results indicate that considerable problems with regard to the quality both of the papers and of the images will be encountered in conserving the documents themselves, and it was therefore recommended that they should either be copied onto Archive Text paper, or microfilmed.

- 1 I EPIC-Misc-M
T Miscellaneous meetings
D 1974.02.21
E 1974.03.01
B EPIC
- 2 I EPIC-Misc-P
T Miscellaneous papers
B EPIC
- 3 I EPIC-Misc-P-01
T Allocation of volunteers to working parties
B EPIC
- 4 I EPIC-PC
T Physics committee-M
D 1973.06.11
B EPIC
- 5 I EPIC-PC-P05
A MANNING, G.
T Electron Proton Intersecting Complex Working Parties
D 1973.12.00
B EPIC
N Revised.
- 6 I EPIC-WP1
T Working party 1-M-1-7
D 1973.03.26
E 1973.10.26
B EPIC
- 7 I EPIC-WP1
T Working party 1-P-18
D 1973.04.00
E 1973.09.24
B EPIC
- 8 I EPIC-WP1-P01
A BROWN, C.J.; LYTH, D.H.
T $ee^- \rightarrow ee^+$ hadrons at Electron Proton Intersecting Complex energies
P Lancaster University
B EPIC
- 9 I EPIC-WP1-P02
A BUDNY, R.
T Electron Proton Intersecting Complex ways of studying weak bosons
P Oxford University
B EPIC
- 10 I EPIC-WP1-P04
A COTTINGHAM, W.N.
T Photon-photon collisions in electron colliding beams at Electron

ALPER, B.

Notes on the future of the CERN storage rings (machine and physics) EPIC-WP7-P02

BACON, T.C.

1973.09.24 Study of the possibility of fitting specific interaction channels and ep elastic scattering in particular
EPIC-WP5-P09

BARBER, D.P.

1973.06.00 The generalisation of the van der Meer method to include the case of bunched collinear beams EPIC-WP7-P05

1973.06.06 Visit of Electron Proton Intersecting Complex working party 7 to Rutherford High Energy Laboratory,
1973.05.14 EPIC-WP7-P03

BARNHAM, K.W.J.

1973.09.21 Kinematics of the reaction " γ p \rightarrow h + anything" EPIC-WP5-P07

BOOTH, N.E.

Feasibility of measuring the total photoabsorption cross section with ep colliding beams EPIC-WP2-P03

BROOKES, G.R.

1973.06.15 Total gamma-hadronic cross-sections - Electron Proton Intersecting Complex EPIC-WP2-P02

BROWN, C.J.

ee- \rightarrow ee+ hadrons at Electron Proton Intersecting Complex energies EPIC-WP1-P01

1973.05.00 ee- and ee+ hadrons at Electron Proton Intersecting Complex energies (2) EPIC-WP1-P05

1973.08.03 Colliding electron beams at Electron Proton Intersecting Complex energies (3) EPIC-WP1-P11

1973.08.15 Colliding electron beams at Electron Proton Intersecting Complex energies (4) EPIC-WP1-P12

BUDNY, R.

Electron Proton Intersecting Complex ways of studying weak bosons EPIC-WP1-P02

Weak effects in Bhabha scattering EPIC-WP1-P13

Weak effects in inclusive experiments at Electron Proton Intersecting Complex energies EPIC-WP1-P07

1973.04.00 Effects of natural weak currents in annihilation EPIC-WP1-P08

CLOSE, F.E.

Rates for electroproduction inclusions (e + p \rightarrow e + X) EPIC-WP3-P02

33 Rates for electroproduction inclusives ($e + p \rightarrow e + X$)
 8 $ee^- \rightarrow ee^+$ hadrons at Electron Proton Intersecting Complex energies
 12 Bibliography for $ee^- \rightarrow ee^+$ hadrons via 2-photon annihilation
 60 regions (in the Laboratory system) for reactions $ep \rightarrow ep(n\pi)$, $n=1, 2, \dots$
 62 Kinematics of the reaction " γ " $p \rightarrow h + \text{anything}$
 53 $ep \rightarrow \nu + \text{hadrons}$

89 The problem of **accelerating** polarized protons in Electron Proton Inter
 43 Summary of **activities** of Electron Proton Intersecting Complex Working P
 68 Report of **activities** of working party 5

3 Allocation of volunteers to working parties

14 Effects of natural weak currents in **annihilation**
 12 Bibliography for $ee^- \rightarrow ee^+$ hadrons via 2-photon **annihilation**

46 Exploitation of a double **arm** transverse field spectrometer at Electron Proton
 65 u, Q^2 due to unobserved final states along the initial **beam** direction
 85 Bunched or direct current proton **beam** for Electron Proton Intersecting Complex?

15 **Beam-beam** bremsstrahlung: the ultimate limit

83 method to include the case of bunched collinear **beams**
 29 tal photoabsorption cross section with ep colliding **beams**
 23 nclusive distribution of pions from electron colliding **beams** at Electron Proton Intersecting Complex energies
 10 Photon-photon collisions in electron colliding **beams** at Electron Proton Intersecting Complex energies
 17 Colliding electron **beams** at Electron Proton Intersecting Complex energies
 18 Colliding electron **beams** at Electron Proton Intersecting Complex energies
 75 Extracted **beams** from Electron Proton Intersecting Complex?
 76 Provision of test **beams** from the booster

24 No effects in **Bhabha** scattering

12 Bibliography for $ee^- \rightarrow ee^+$ hadrons via 2-photon annihilation

76 Provision of test beams from the **booster**

9 tron Proton Intersecting Complex ways of studying weak **bosons**
 50 Production of intermediate vector **bosons** by weak interactions in Electron Proton Intersec

66 Effects of scaling **breakdown**

15 **Beam-beam** bremsstrahlung: the ultimate limit

83 f the van der Meer method to include the case of **bunched** collinear beams

85 **Bunched** or direct current proton beam for Electron Proton Interse

61 Calculation of total EM and weak rates

90 Notes on the future of the CERN storage rings (machine and physics)

1. 1973.02.14 EPIC-WP5 Working party 5-M-1-5 1973.06.04
2. 1973.03.14 EPIC-WP7 Working party 7-M-1-2 1973.05.02
3. 1973.03.21 EPIC-WP2 Working party 2-M-1-3 1973.06.20
4. 1973.03.26 EPIC-WP1 Working party 1-M-1-7 1973.10.26
5. 1973.04.00 EPIC-WP1 Working party 1-P-18 1973.09.24
6. 1973.04.00 EPIC-WP1-P08 Effects of natural weak currents in annihilation BUDNY, R.
7. 1973.04.00 EPIC-WP3 Working party 3-P-1-15 1973.11.27
8. 1973.04.00 EPIC-WP3-P01 Electroproduction kinematics conventions IBBOTSON, M.; FOSTER, F.
9. 1973.04.30 EPIC-WP8 Working party 8-P-1-6 1973.09.00
10. 1973.04.30 EPIC-WP8-P01 Electron Proton Intersecting Complex meeting at Rutherford High Energy Laboratory
1973.04.11-12 - points relevant to miscellaneous topics working party DAMERELL, C.J.S.
11. 1973.05.00 EPIC-WP1-P05 ee- and ee+ hadrons at Electron Proton Intersecting Complex energies (2) BROWN, C.J.;
LYTH, D.B.
12. 1973.05.09 EPIC-WP3 Working party 3-M-2-3 1973.06.20
13. 1973.05.09 EPIC-WP4 Working party 4-M-1-2 1973.06.14
14. 1973.05.24 EPIC-WP1-P04 Photon-photon collisions in electron colliding beams at Electron Proton
Intersecting Complex energies COTTINGHAM, W.N.
15. 1973.06.00 EPIC-WP2 Working party 2-P-1-3 1973.06.15
16. 1973.06.00 EPIC-WP2-P01 Compton scattering RANGE, W.
17. 1973.06.00 EPIC-WP3-P03 Some physics questions about deep inelastic ep LANDSHOFF, P.V.
18. 1973.06.00 EPIC-WP3-P05 Photon physics for Electron Proton Intersecting Complex CLOSE, F.E.
19. 1973.06.00 EPIC-WP7-P05 The generalisation of the van der Meer method to include the case of bunched collinear
beams BARBER, D.P.
20. 1973.06.06 EPIC-WP7 Working party 7-P-1-7 1973.09.00
21. 1973.06.06 EPIC-WP7-P03 Visit of Electron Proton Intersecting Complex working party 7 to Rutherford High
Energy Laboratory, 1973.05.14 BARBER, D.P.
22. 1973.06.11 EPIC-PC Physics committee-M
23. 1973.06.11 EPIC-WP6 Working party 6-P-1-3 1973.08.08
24. 1973.06.11 EPIC-WP6-P01 Comparison of intensities in Electron Proton Intersecting Complex and conventional
machines KALMUS, P.I.P.

1973.05.02

EPIC-WP7 1973.03.19 Working party 7-M-1-2

1973.06.04

EPIC-WP5 1973.03.14 Working party 5-M-1-5

1973.06.14

EPIC-WP4 1973.05.09 Working party 4-M-1-2

1973.06.15

EPIC-WP2 1973.06.00 Working party 2-P-1-3

1973.06.20

EPIC-WP2 1973.03.21 Working party 2-M-1-3

EPIC-WP3 1973.05.09 Working party 3-M-2-3

1973.08.08

EPIC-WP6 1973.06.11 Working party 6-P-1-3

1973.09.00

EPIC-WP7 1973.06.06 Working party 7-P-1-7

EPIC-WP8 1973.04.30 Working party 8-P-1-6

1973.09.24

EPIC-WP1 1973.04.00 Working party 1-P-18

1973.10.26

EPIC-WP1 1973.03.26 Working party 1-M-1-7

1973.11.00

EPIC-WP5 1973.08.00 Working party 5-P-1-18

1973.11.27

EPIC-WP3 1973.04.00 Working party 3-P-1-15

1974.03.01

EPIC-Misc-M 1974.02.21 Miscellaneous meetings



