

ELECTRONICS RESEARCH FOR THE RUTHERFORD LABORATORY

A note by T. G. Pickavance and E. H. Cooke-Yarborough

1. The high energy research programme on Nimrod and the Proton Linear Accelerator will demand continuous research and large-scale development in the field of electronic instrumentation. Some of this work will be in support of the research by the Nuclear Physics Division, A.E.R.E. on Nimrod and the P.L.A., but the majority will be for the Institute and the universities. Much of the work in both categories will be of common value to the Institute and to A.E.R.E. The Institute must pay their share of the cost, and must also provide their share of the necessary manpower as soon as possible.
2. Because of the community of interest between A.E.R.E. and the Institute in the field of electronic research, we propose that the Institute does not set up its own organisation for electronic research and development, that it provides its share of the manpower needed for electronic research and development by recruiting the necessary number and grades of staff, and that these staff should work mainly in the A.E.R.E. Electronics Division under the control of A.E.R.E. staff. In the personnel field no hard and fast line should be drawn between Institute work and Authority work, and the team required to work on any project, whether wholly an Institute project or of common interest to both the Institute and the Authority should be decided ad hoc by the Director of the Rutherford Laboratory and the Head of the A.E.R.E. Electronics Division.
3. Certain services, at present provided by A.E.R.E., are in process of being taken over by the Institute. It follows, therefore, that services would be supplied by one organisation to members of the other in both directions. The payment for this support would be by both organisations contributing an agreed percentage to the cost of projects in which both are interested (see appendix). Orders for stores and equipment on requisitions to Contracts Branch for work done in the Electronics Division would be charged to A.E.R.E. in the first instance, the cost of items subsequently transferred to the Institute being recovered from the Institute at the time of transfer.
4. The normal A.E.R.E. procedure would be followed for development contracts arising out of electronics research. The cost of development would be shared in approximately the ratio of expected benefit derived from the development; this has already been done on a number of occasions, without serious difficulty.

Any production orders following development in industry there would be no difficulty in allocating costs on the basis of the number of units requested by the Institute.

5. Mr. Kandiah's group already occupy Rutherford Laboratory accommodation. This would be extended at Institute expense to take the increased staff necessary for the additional load imposed by the Institute. The exact disposition of Electronics Division research staff about the Harwell area is a matter for the Division to decide, but it is an essential part of the present proposal that a strong contingent of A.E.R.E. electronics research staff would be located at the Rutherford Laboratory. Otherwise it would be impossible to maintain a properly balanced research group to tackle problems of joint interest to A.E.R.E. and N.I.R.N.S.

6. In the first instance the Institute would recruit about 6 professional electronic staff to cover the period 1/4/1961. Eventually this number might rise to about 15.

7. The Institute would, when able to do so, set up their own electronics maintenance and post-development services in the Rutherford Laboratory, managed and staffed by their own people, and would also run any wiring pool or other constructional services required in the Rutherford Laboratory. Instruments of types in use at A.E.R.E. and for which Electronics Division has maintenance responsibility would be maintained for the Institute by Electronics Division, the Institute providing any staff necessary to offset the extra load involved.

1st November, 1960

- 2 -

c.c. Dr. Pickavance
Mr. Willis
Mr. Kandiah
Mr. Le Cren

COPY

APPENDIX

Sharing of electronic costs of certain projects
between A.E.R.E. and the National Institute.

The following percentages were agreed between Mr. Coulbeck
and Dr. Willis on August 3rd, 1960:-

<u>Project Number</u>	<u>Item</u>	<u>Percentage to the Institute</u>
L8/24/11	Gevatron research & development	100
L8/27	Instrumentation for Physics Research	20
L9/8/18	General Design & Development	10
L9/8/19	Development of instruments of wide application	10

The sharing of costs is to be reviewed in August 1961.