

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE AND PERSONNEL COMMITTEE

Staff Complement for the Rutherford Laboratory

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INTRODUCTION

1. A year ago, in paper NI/GP/59/22, proposals were put forward for the first time for staffing the Rutherford Laboratory with N.I.R.N.S. employees. The principles proposed in that paper and adopted by the Institute have been developed and applied during the intervening months. It is thought right, however, to draw attention to two points.
 - (a) The principle of free interchange of staff between the Institute and the Authority raises difficulties in the case of Authority groups other than the Research Group. These are still under discussion.
 - (b) Whereas it was thought that the staff required for the design and construction of 'Nimrod' would remain for the time being with the Atomic Energy Authority, it was found best to offer them transfer to the Institute now, in order to facilitate a smooth and gradual transfer from work on 'Nimrod' design to work on nuclear equipment and other Institute tasks.
2. During the year, as plans for the organisation of the laboratory, and for some sections of the future work, have been gradually developed, it has become clear that the staffing estimates put forward a year ago were too low. An increase of 64 in the complement put forward a year ago for 1960/61 was approved by the Personnel Committee in March 1960. An increase of 10 in the complement of administrative staff for 1960/61 was approved by the Chairman in July.
3. A revised estimate for the next three years is now put forward in Table 1 (attached). This table is set out on the basis of the present idea for the organisation of the laboratory when Nimrod is operational. This has necessitated some rearrangement of numbers in the "previous" estimate columns, but the totals are the same as those in NI/GP/59/22, except that the A.E.A. Industrial Group staff - which were included then - have been omitted now, because it is not appropriate to offer them transfer to the Institute.

In the table, three columns are shown for each year, so that the new estimates can be compared with the previous estimates and with the increases subsequently authorised.

- (i) These are the figures from the estimate made a year ago in NI/GP/59/22 adjusted as described in the previous paragraph.
- (ii) This column shows the increased figures where increases have been authorised for 1960/61 as listed in para 2 above, and in the later years it shows the same increases added to the figures in column (i).
- (iii) This shows the present estimate.

The distinction between Atomic Energy Authority staff and Institute staff which was made last year has been dropped for the purpose of the numerical complement. All the A.E.R.E. Staff working at the Rutherford Laboratory for the Institute are included, and they have all received offers of Institute employment. It is hoped that most of those who decline may be kept on the construction of 'Nimrod' by the A.E.R.E. until this task is completed. If so, they will for the time being, occupy places in this complement.

4. Approval is requested for a complement of 672 in 1961/2 and provisional approval is requested for the forecast figure of 778 in 1962/63 and 839 in 1963/64.

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Notes on Table 1

Notes in the body of the table

- (a) Included with beam handling.
- (b) Included with engineering services.
- (c) Including Nimrod engineering and operations.

Notes on particular changes

<u>Group or Section</u>	<u>Notes</u>
<u>Physics Staff</u>	
1 and 4.F	Previously included with "beam and nuclear physics equipment." Section 4.E however, now requires at least the whole of that complement.
3.B to 4.F (inclusive)	'Nimrod' machine and nuclear equipment figures taken together are not much changed in 1961/62 and 62/63.
5.A	Under new accelerators for Universities, the specific figures are for the Oxford project. The future policy has not been anticipated.
5.B	Accelerator Research and Development, was, until recently, regarded as an A.E.A. commitment. The figures given do not anticipate the increased effort on high intensity proton synchrotrons, etc. which has been suggested in the paper on accelerator requirements for the next ten years.
5.C	Under new accelerators for N.I.R.N.S. a token figure of 33 was given originally to show that effort would become available from NIMROD in 1963/64. The increased demands of beam handling equipment and nuclear physics apparatus may reduce this surplus, and since there are other increases shown e.g. on the P.L.A. it seems unreal to show a token figure for new accelerators. No account has been taken in the Rutherford Laboratory forecast of complement which would be required in the accelerator requirements paper. Whilst it is clear that there will not be spare complement experienced people will be available for new projects.
6.	The increased P.L.A. figures show an appreciation of the large amount of effort which is required to maintain and develop the machine for nuclear physics, and to support the nuclear physics programme. Some effort is included for the addition of a further tank to the machine.
9.	Electronics staff are at present being seconded to the A.E.A. for National Institute work in A.E.R.E. Electronics Division. The entry in the table does not indicate an electronics organisation in the Institute.

Engineering Staff

- All groups Reduction of industrial overtime, which is present A.E.A. policy, requires more industrial staff.
- 6 A and B Experience of the scale of effort required to make the P.L.A. reliable in operation and to support the nuclear physics programme.
- Addition of a further tank to the P.L.A.
- 7 Increased overlap between design and construction of NIMROD and the nuclear equipment.
- Support for Accelerator Research (until recently an A.E.A. responsibility).
- Support of the Oxford university accelerator project.
- General expansion of the programme of the laboratory, e.g.
- (i) Bubble Chambers
- (ii) Orion Computer
- (iii) Extension to the P.L.A. buildings.
- Administrative Staff
- 10 C Administrative, clerical and typing staff, including those working for engineers and physicists.
- 10 D These comprise the industrial staff under the administration, e.g. watchmen, messengers, drivers and cleaners.

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TABLE 1

NI/OP/60/37

Group or Section		ESTIMATED COMPLEMENT			
		1960/61		1961/62	
		Previous (1)	Present (11)	Previous (1)	Present (11)
Director and non-group staff	2P 2E 1A		5		5
1. Radiation Protection	P	(a)	4	(a)	8
2. Mirror Nuclear Physics	P	12	10	30	45
3. Mirror Operation					
3.A Engineering and operations	E	(b)	10	(b)	91
3.B Physics	P	0		0	41
4. Mirror construction physics					
4.A Injector	P		121		125
4.B Magnet	P	117		100	
4.C R.F.	P				
4.D Vacuum	P	27		40	
4.E Beam handling	P	(a)		(a)	
4.F Bubble Chambers	P				
5. Physics of future Accelerators					
5.A University Accelerators	P	21	19	24	16
5.B Accelerator Research	P	22	23	0	26
5.C New Accelerators, N.I.R.N.S.	P	0	0	0	0
6. Proton Linear Accelerator					
6.A P.L.A. Physics	P	44	45	44	56
6.B P.L.A. Research	E	31	40	31	53
6.C P.L.A. Engineering					
7. Engineering Services					
7.A Engineering Design	E	173	57	191	64
7.B Engineering Services	E	(c)	147	(c)	138
7.C Estimates and Sanctions	E	(o)	10	(o)	12
8. Theoretical Group	P	16	16	16	25
9. Electronics	P	5	5	8	10
10. Secretariat					
10.A Scientific and Technical Services	A		4		9
10.B Finance and Accounts	A	61	10	70	14
10.C Administration	A		37		48
10.D Site Services	A		19		26
Physics Totals		242	244	269	324
Engineering Totals		204	266	222	360
Administration Totals		61	71	68	94
GRAND TOTALS		507	581	559	778
Additional services which might be taken over from the A.B.A.					
Engineering (Inspection, progress and outside manufacture)					30
Administration (Hostel and grounds staff)					11