Comm/4(b) & Staff 23rd October, 1963. NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE 01370 GOVERNING BOARD Report on the Institute's Financial Situation and Estimates by A. W. Merrison, T. G. Pickavance and J. A. V. Willis The last forward look at the Institute's finances was that presented to the Board on 15th March, 1963 in the Five-year Financial Forecast 1964/65 - 1968/69 (NI/63/4). This was submitted to the Miniter for Science, but has not been approved. A good deal has happened since that time, and this paper summarises the events and gives the background to the preparation of the Estimates for 1964/65 and Forecast Estimates for 1965/66 and 1966/67 which are now placed before the Board (NI/63/18). The situation has been dominated by the unexpectedly high expenditure at the Rutherford Laboratory this year. The paper entitled, "Rutherford Laboratory Budget 1963/64" (NI/63/13) outlined this to the Board together with the measures taken to deal with it. As a consequence, the Board at their meeting on 15th July, 1963 approved the proposal to seek a supplementary grant of £600,000 to cover the Institute's expenditure this year. It was again emphasised to the Board at that time that there was no possibility of running the Rutherford Laboratory properly and making a start on the Electron Laboratory within the "two per cent" pattern of expenditure upon which the Treasury had insisted in July, 1962. The Board asked us to make these facts known to the Minister for Science. At a meeting between the Chairman, the Minister for Science and the Chief Secretary to the Treasury on 2nd August, 1963, it was agreed that the Institute might spend up to £600,000 in excess of their grant for 1963/64. It was understood that the A.E.A. would be able to find the additional funds by virement from other sub-heads of the Atomic Energy vote. 4. At this meeting it was made quite clear also that the Institute could not run the Rutherford Laboratory and the Electron Laboratory with any degree of efficiency unless the "two per cent formula" imposed in 1962 could be set aside. Although Ministers left this point for later discussion, they agreed that the main building contract for the Electron Laboratory could be placed. Draft Estimates for 1964/65 and forecast estimates for 1965/66 and 1966/67 (NI/GP/63/19) were submitted to the General Purposes Committee on 16th September, 1963. These Estimates showed desirable figures prepared with due regard for economy, but without allowance for exceptional financial circumstances, and exceeded the Five-Year Forecast figures for 1964/65 by £1.5 million, less shadow-cut. The Committee asked us to submit these figures to the Secretary of the Minister's Office, Mr. Turnbull, and Merrison and Pickavance did so at a meeting with him and Mr. Thompson, of the Minister's Office, and Mr. Hudspith of the A.E.A. on the 26th September, 1963. - 1 -

The General Purposes Committee, at Professor Cassels's suggestion, also asked that a review of the Rutherford Laboratory expenditure should be made by scientific members of the Board to help in examining the Estimates. Professor Cassels and Dr. Adams took part with Dr. Pickavance and Mr. Mullett in a preliminary discussion on 3rd October. Their conclusions are presented to the Board in a paper, "Comments on the Expenditure of the Rutherford Laboratory and Comparison with C.E.R.N." (NI/63/17).At the meeting with Mr. Turnbull on 26th September, he urged us 7. most strongly not to increase the 1964/65 Estimates above the figures contained in the Five-year Forecast, on the grounds that the figures for that year had only recently been discussed by Ministers. As the Board will recall the Forecast total for the Rutherford Laboratory (less Atlas and receipts) and the Electron Laboratory for 1964/65 was £8.7 million less a shadow-cut of £0.5 million. Although we knew at that time the serious implications of these figures we felt bound to accept Mr. Turnbull's view. Accordingly, the Estimates now presented to the Board have been worked out to these figures. 8. It is important that the Board should understand that the Estimates for the Rutherford Laboratory in 1964/65, now presented to them in paper NI/63/18, represent "rock-bottom" figures. These could not be reduced materially without stopping completely some major part of the Laboratory programme. (A small reduction due to the allocation of part of the shadow cut to the Rutherford Laboratory may have to be accepted, albeit at some risk). Although, for example, a small amount is allowed for new minor (under £100,000) capital schemes, these are mainly urgent building items already approved but deferred during the financial crisis of the summer. It is clear that a programme at this low level can only be endured in the Laboratory for a short time; there must be provision in later years for capital investment in particle detection and similar work. 9. In the following years, the Estimates for the Rutherford Laboratory in NI/63/18 represent a more comfortable situation, but would not permit full utilisation of the P.L.A. and Nimrod in 1965/66. 10. With the Electron Laboratory, there is, of course, not so much room for manoeuvre, since the estimates cover essentially a single project - the building of NINA and the laboratory to house it. For the year 1963/64 the estimates will cover the construction rate implied by completion in October, 1966, and it is probable that the Laboratory could sustain a proportion of the shadow cut without serious difficulty. Possible delays in construction are allowed for in the shadow cut which appears in 1964/65. Unfortunately, already several months have been lost in the building programme. 11. We were informed also by Mr. Turnbull on 26th September, 1963 that his Office is preparing papers covering forecast expenditure for the next four years in the Institute, on C.E.R.N. and on the proposed new European accelerator; and he asked us to supply him with estimates for the Institute. At his request, these have been made up on two assumptions. The first is on the "rock-bottom" basis, corresponding to that on which the Rutherford Laboratory's estimate for 1964/65 is based except that some capital investment has been included in the years beyond 1964/65. The second is on a "rational" basis, which corresponds to a more complete exploitation of the Rutherford Laboratory accelerators. 12. We ask for the Board's approval for the Estimates now presented in paper NI/63/18 and, in particular, for our basing the 1964/65 Estimates on the figure of £8.2 million suggested by Mr. Turnbull. - 2 -