

XXXXXXXXXXXX
Rowstock 377 Ext: 7

969-4-2/T

3rd October, 1960.

Mr. Geoffrey Hubbard,
Department of Scientific and Industrial Research,
Charles House,
5-11 Regent Street,
London, S.W.1.

Dear Hubbard,

The U.K. National Bubble Chamber

Thank you for your letter of 28th September. As you say, only the third of the three questions which you raise is under my control. However, I shall give my views on the other two for what they are worth:

- (a) The programme date for tests to be completed at the Rutherford Laboratory is August/September 1961. The present state of progress is encouraging, and this date should be met if no serious snags arise. There is always the possibility of delay on a project of this nature, and one cannot legislate in advance for all possible disasters. However, my judgment is that all tests should be satisfactorily completed before the end of 1961.
- (b) Similarly, I understand that CERN have estimated that they will be ready by "the late fall" of 1961. Readiness is a progressive state, however. Certain installation work on auxiliaries could go ahead from mid-1961 if CERN's building materialises as planned, before the removal of the chamber proper from the Rutherford Laboratory, subject to an agreement with CERN on the method of working (e.g. division of effort between CERN and U.K. staff).

CERN have also estimated that "simple" beams would be available in the bubble chamber area early in 1962.

- (c) I estimate that "simple" beams from Nimrod will be available for the bubble chamber in the first quarter of 1963, and that more sophisticated arrangements will follow later in the same year.

On the present showing, therefore, there should be an interval of about one year between the use of the chamber on "simple" beams at CERN and the availability of "simple" beams at the Rutherford Laboratory. If the chamber were not to go to CERN we should certainly use it on the simple beams here. The object would, however, be more concerned with gaining experience in the use of the chamber (including the collection and analysis of data) than with producing important research results. The really valuable research would start later in 1963 when more refined beams would be available from Nimrod.

If the chamber goes to CERN, the initial experience will be gained there. An important point, which may well determine the issue, will be the date when refined beams are available at CERN. I do not know the present estimates of this date, but presumably this will come up for discussion during Professor Butler's visit to CERN later this week. A few months' running on refined

XXXXXXXXXX

Rowstock 377 Ext: 7

969-4-2/T

3rd October, 1960.

- 2 -

Mr. Geoffrey Hubbard

beams from the 25 GeV machine would build up a valuable stock of pictures, and this would justify the operation. It could even justify delaying somewhat the installation of the chamber on refined Nimrod beams, as I pointed out in my letter of 25th January, 1960, to L. S. Smith.

Yours sincerely,

T. G. Pickavance

c.c. Professor C. C. Butler
Mr. M. Snowden