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Date : 25 May, 1962

MEMORANDUM

To : Chairman EEC
From : P. Astbury, P. Murphy, M.A. Roberts
Subject : Cloud Chamber Magnet

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We consider that the cloud chamber magnet is very suitable for spark chamber experiments. The volume in the 11.000 gauss field, 200 x 60 x 60 cm³, is accessible from the top sides and ends; and there is no serious obstruction to prevent the mounting of supplementary apparatus close to this volume.

As far as we know there is no existing magnet which is more suitable for spark chamber experiments; if a new magnet were to be designed improvements could be made by

- a) making provision to open the magnet thus increasing still further the accessibility,
- b) increasing the magnetic field,
- c) increasing the volume; a large volume is required for good detection and measurement of π^0 mesons.

In view of the suitability of the cloud chamber magnet, and the time required to design and build a new magnet, we consider that the most practical course of action is to use the present magnet and defer design of a new one until more experience with magnetic spark chamber systems is available.

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