

Mr Snowden

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Meeting Concerning Saclay Bubble Chamber - April 14th, 1964

<u>Present:</u> Professor A. Berthelot	Dr. T. G. Pickavance	Mr. M. Snowden
Dr. J. Meyer	Mr. L. B. Mullett	Dr. E. Pickup
M. P. Prugne	Mr. W. Walkinshaw	Dr. A. M. Segar
	Dr. G. H. Stafford	Mr. J. H. Foster

1. Time Schedule for Chamber

The first loads will be arriving on 10th June. Five or six staff would arrive from Saclay at that time, and from then till September some staff would always be at the Rutherford Laboratory, the number rising to 10 at the end of the period. Until September, staff would stay in England no longer than two or three weeks at a time, so only temporary single accommodation would be required, but from September there would be ten people permanently resident here requiring accommodation for their families.

At the end of September there would be technical running of the chamber, requiring a pion beam, and towards the end of October the chamber would be ready for long periods of K running.

In period II of Nimrod running, there would be 500-700 hours of bubble chamber main user running time, during which it should be possible to obtain 5×10^5 K pictures. Experience with the chamber had shown that the optimum length of run was fourteen consecutive days. Efficiency fell off seriously for runs of longer or shorter periods than this, and the chamber should never be left standing by without beam if this could be avoided.

2. Beam Requirement

Two possible beam designs were being considered at present, and a final choice would be made within two or three weeks. It was accepted that this was an urgent problem as installation of the chamber was already being planned.

It was stressed that targetting for parasitic running of the chamber would be needed in September, and that this should be tried as soon as possible on the machine in case there were any unforeseen difficulties. Time should be available for this in the next machine study period.

Also important for parasitic running was a beam chopper device to limit the number of tracks to a fixed number each burst. Chopping by control of the R.F. was being considered, but it was felt that a simple beam deflector should be built as well.

3. Formal Agreement

This was presented by Prof. Berthelot in draft form, and a reply with any suggestions or modifications would be sent soon by the Director.

Since it was unlikely that there would be sufficient metric machine tools in the laboratory, the agreement included provision for Saclay to bring some with them.

Some arrangement for quick clearance of material for the chamber through British Customs would be necessary. After discussion, it was agreed that this should be done as it had been with items for the 1.5 metre chamber, through the transport agents LEP.

4. Budget

The budget for operation of the chamber was £63,000 until April, '65, and this included provision for parasitic running. This was about the same as an estimate by M. Prugne, though he had not included any money for beam electronics.

5. Physics Programme

The programme was being arranged in informal discussions at present among the French and British groups concerned. A formal proposal for the K experiments had been prepared for consideration by the Selection Panel on 14th May. A request was made that Saclay should prepare a note for presentation at that meeting, describing the π^- experiment.

6. Other Laboratories

Requests for film by laboratories other than the British or French would in general have to be refused. The collaboration was a special arrangement between two national laboratories and not at all like the situation at CERN.

A. Segar

29th April, 1964