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## MEMORANDUM

To

: SPS Committee

From

: Spokesmen and Contactmen of Experiments

Subject

: Length of SPS Physics Runs for Fixed Target Operation

(J.V. Allaby WA18; F.G. Binon NA12; F. Brasse NA9; A. Michelini NA3;

L. Montanet EHS; H.G. Montgomery NA9; D.R.O. Morrison WA21;

G. Myatt WA21; Y.D. Prokoshkin NA12; J. Steinberger WA1;

G. Viertel NA10; C. Zupancic NA4).

It has been our experience over the last few periods that the start-ups of the SPS after the machine development stops have usually been difficult and time-consuming. A graph of neutrino picture taking at BEBC during period 7b is attached. It is clear that good efficiency (>80%) was obtained after the 1½ days lost to various starting up problems. This graph is typical of other periods. In addition, the intensity of protons in the SPS and on the targets tends to increase over the physics run. Since all experimental apparatus must be ready and running at the nominal start of physics operation, the start up is inefficient and wasteful of power.

We, therefore, believe that it is time to consider extending the length of the normal physics runs from 10 days to 17 days. This would allow machine development and setting up to be done during the week as at present. Since in future the number of hours devoted to fixed target operation will be reduced by the overall reduction in operating hours and by the time allocated to collider operation it is important that the physics runs be carried out with the maximum possible efficiency. We believe that a change to 17 day physics periods would be a major step in this direction.

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