

Timing Committee Meeting No. 3

August 3rd, 1961

- - - -

Present : Ch. Brooks, A. Cheretakis, H. Fischer, J. Geibel, U. Kracht,
J. Sharp.

- -

1. The first production delay unit was shown. Linac and Controls prefer banana plugs on the front panel. It is proposed to identify on the front units for 24 V or 30 V operation. A mark also is proposed for identification of units with different ranges. Linac will use 10 pieces and Controls 5 pieces. The experimenters (Targets, ALO) will mainly need delays longer than 10 ms, which exceeds the normal delay of the unit.
2. 10 transist. timing units are ready and will be used in the CPS. In a few months another 50 will be available. Of those

3	will be given to	Targets
8	" " " "	G. v. Dardel
12	" " " "	ALO
3	" " " "	Controls
3	" " " "	Linac.

J. Sharp regrets the absence of internal START ? facilities.

It was understood that a new series will include this facility, the need of which is covered, for the time being, by the Etelco units.

3. The final version of the transistorized B.O. plug-in is discussed. (See annex for decision.)

4. For the earthing of pulse lines it does not seem possible to find a universal solution (see Timing Committee Minutes No. 2).
5. J. Sharp will try to find a more suitable device for pulse indicating. The specifications should be :
 - a) Pulse shape : $10 \text{ V}/1 \mu\text{s}$
 - b) Higher input impedance ($\approx 10 \text{ k}\Omega$)
 - c) Supply voltages : $\pm 30\text{V}$.

The DM160 proved not to be very reliable. If another suitable indicator could be found; it should replace the DM160.

6. Ch. Brooks has established a list of names for target timing pulses, which will be introduced into the User's Handbook. One has to see from experience whether they will prove to be useful.
7. The new M-Generator is briefly explained. It will contain a precision optical pick-up mechanism to provide M-pulses precise to $\pm 10^{-4}$ to the generator shaft displacement. This is necessary to make full use of the benefits of the mean speed regulation.
8. An analog-to-digital integrator has been ordered from Hewlett-Packard to replace the actual source of B10 pulses. It is hoped that it will improve their precision temporarily until a more efficient solution will be found.

A. Cheretakis

Distribution : (open)

PS Machine Div. Committee
Timing Committee

And for information to :

K. Gase	H. Pflumm
J. Jamsek	K. Unser
M. Mary	

Annex.

A second meeting had to be held on August 7th, following new information on the blocking oscillator. With enough safety margin the B.O. will only feed on 75Ω load and another output of higher impedance (250Ω). Therefore, until more experience will be gained, especially with the transistor coming from the series production, a resistor will be put in series with the second output coil of the B.O. card.

The pulse repeater will include two B.O. giving each one output pulse into 75Ω load.

The front panel presented by U. Kracht will contain indicators for the input as well as for the output pulses.

H. Fischer

Present : A. Cheretakis, H. Fischer, U. Kracht, J. Sharp, K. Unser