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Memorandum M-2120

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Digital Computer Laboratory  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Subject: SUMMARY OF MAGNETIC-CORE MEMORY MEETING HELD APRIL 24,  
1953

To: N. H. Taylor

From: N. P. Edwards and W. N. Papian

Date: April 29, 1953

Abstract: A resumé of the WWII areas expected to be covered during the next few months in the work of the magnetic-core memory "sections" of MIT and IBM follows. It was discussed at a meeting on the 24th of April attended by D. R. Brown, N. P. Edwards, W. Ogden, and W. N. Papian.

I. MIT Section

A. The Memory

1. Planar tests of various core types passed to us from Group 63.
2. Investigations into memory plane size and configurations.
3. Evaluation of various mechanical-design suggestions.

B. Address-Selection System

1. Intensive work on the magnetic-core matrix switch.
2. Evaluation of direct vacuum-tube drive in MTC.
3. Development of pulse transformer driver circuit.\*
4. Evaluation of the 4096-position, coincident-current switch.
5. Development of miscellaneous circuitry.\*

\* Items marked with an asterisk are those on which other Group 62 sections are collaborating.

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C. Digits and Read-Write System

1. Investigation of various sensing techniques.
2. Development of a sensing amplifier.\*
3. Development of a digit-plane driver.\*

II. IBM Section

- A. Construction and operation of one or more automatic core testers.
- B. Building and operation of a manual core tester for lot sample tests of cores for disturb sensitivity, "delta," etc.
- C. Construction of a 64 x 64-core array tester to obtain data on arrays and to use for production tests of arrays.
- D. Investigation of transformer driving schemes for memory.
- E. Investigation of mechanical problems in the construction of various types of arrays.
- F. Assistance to MIT section in general circuit design and analysis.

\* Items marked with an asterisk are those on which other Group 62 sections are collaborating.

Signed N.P.E. WNP  
N. P. Edwards

Signed W.N. Papian  
W. N. Papian

NPE:WNP/bs