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Digital Computer Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts

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3-15-60

SUBJECT: GROUP LEADERS' MEETING, OCTOBER 20, 1952

To: Group Leaders

From: David R. Brown

Date: October 23, 1952

Present: Jay W. Forrester, C. W. Adams, D. R. Brown, S. H. Dodd, R. E. Everett,
H. Fahnstock, H. H. Taylor, C. R. Wieser, P. Youtz

- Agenda:
1. Vacuum Tube Reliability
 2. Magnetic Cores
 3. Comment on November 14 Meeting
 4. Status of IBM Contract
 5. Report on 701 Computer
 6. Time Schedule for WWII
 7. Joint Division 2 and 6 Meetings

1. Vacuum Tube Reliability

A study of the whole vacuum tube field will be made to determine which basic types might be used in WWII. The week of November 17 will be devoted to a visit of different tube plants, including RCA, Sylvania and General Electric, to see which companies have progressed most in quality control. Those making the tour will include Taylor and Jack Goetz of IBM and some of the top circuit people from IBM and our laboratory. Bonnell Frost should probably be included. IBM has a group of about twenty working on component analysis and post-mortem of failures. Any reports from this group would be very desirable.

2. Magnetic Cores

Brown announced that a new batch of 2,000 ferrite cores from General Ceramics have been received. These cores are quite small. They require a peak current of one ampere. Uniformity is good. Approximately 50% of the cores are within plus or minus 5% of the mean.

Taylor stated that RCA is becoming quite interested in ferrites for digital computer memories and would like to standardize on certain sizes

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so that they can go ahead and design tubes for these particular standard sizes. RCA is planning to make both the ferrite rings and the tubes to drive them.

Taylor also stated that MTC is moving ahead rapidly and construction will be completed in February. The magnetic cores for the memory are the largest uncertainty and the MTC Group is waiting for some word from the Magnetic Materials Group of a standard core that might be used in MTC.

The Ceramic Array I has been on several all-day runs without error recently.

3. Comment on November 14 Meeting

Forrester announced that we will be hosts to the Advisory Board on Simulation for Control Systems Dynamic Analysis Facility on November 14. They would like to see the laboratory and the Computer--perhaps some lectures will be arranged.

Dodd announced that during the next two months we will be installing new power controls, a new alternator, and other power equipment for WWI which may effect some demonstrations. Considerable early warning is very desirable.

This Friday (October 24) the DIKO Committee will visit the laboratory.

4. Status of IBM Contract

Forrester stated that the question of a prime contract or sub-contract has not yet been settled. IBM prefers a prime contract with the Air Force and negotiations seem to be proceeding in that direction. Some recent developments have complicated the negotiations somewhat so that no contract is available right now. IBM World Headquarters is evidently not disturbed by the slowness of the contract negotiations. In the future, IBM may be able to work directly with the CRC on the prime contract negotiations.

Some people from the University of Michigan were at Poughkeepsie last week. The University of Michigan system is described in UMM-100.

IBM is anxious, in order to expedite contract negotiations, that none of their men work on our job until the contract is signed. However, in the mean time we can educate them of the problems which lie ahead. We should send different persons to IBM--probably at the rate of about two per week. A teletype link between Poughkeepsie and the Computer Laboratory is being installed. IBM engineers should be invited to visit us to see significant developments here, such as WWI, Truro, Bedford, etc., even though the contract is not yet complete.

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5. Report on 701 Computer

Taylor stated that the report on the group's visit to see the 701 Computer at Poughkeepsie is now being typed. The 701 Computer is now in the same state that WWI was in 18 to 24 months ago. Intermittent errors appear to occur every twenty minutes or so--errors in storage are perhaps even more frequent. The margins appear to be low and it is difficult to make the machine operate as a whole. The engineers doing systems work have very little time on the machine, only about ten hours per week.

6. Time Schedule for WWII

Taylor asked if the schedule for WWII as published in M-1661 appeared to be sound. This schedule calls for the first WWII by the middle of 1954. The group seemed to feel that this schedule was reasonable.

7. Joint Division 2 and 6 Meetings

The Joint Division 2 and 6 Meetings, which were attended by Group Leaders of both divisions last Spring, should be reinstated.

Signed

David R. Brown

David R. Brown
Secretary

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