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Memorandum 61-166

Division 6 - Lincoln Laboratory
 Massachusetts Institute of Technology
 Lexington 73, Massachusetts

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Auth:	DDJ
By:	RE
Date:	3-15-60

SUBJECT: GROUP LEADERS' MEETING, SEPTEMBER 20, 1954

To: Group Leaders

From: David R. Brown

Date: September 22, 1954

Present: J. W. Forrester, D. R. Brown, S. H. Dodd, R. R. Everett,
A. P. Kromer, J. C. Proctor, N. H. Taylor, and P. Youtz

- Agenda:
1. Display for AN/FSQ-7
 2. Installation of AN/FSQ-7(XD-1)
 3. Plans for the Direction Center Buildings
 4. Gap Fillers for SAGE
 5. Plans for IBM Research
 6. Transfer of Information Between IBM and MIT
 7. Group 63 X-Ray Program
 8. Status of AN/FSQ-7(XD-1)
 9. Meetings

1. Display for AN/FSQ-7

H. Beatty of IBM and P. Youtz visited Hughes during the week of September 13. Technical progress on the Typotron is satisfactory but a contract has not yet been agreed upon between IBM and Hughes. Hughes is obtaining a licensing agreement from Convair to use the Charactron technique. Two more experimental Typotrons will be required to fix the electron optics. Results of life tests at 4,000 hours are encouraging. No trouble has been encountered from the cathodes, from matrix bombardment, or from gas pressure. The problems encountered are due to poor control in making the tube faces. Steps are being taken to improve this control. H. Beatty is designing inspection and receiving equipment and delineating a test procedure for Typotrons.

Convair is making only a few Charactrons per month and no life tests are being conducted at Convair. Several MIT Charactrons are on life test here. The electron optics for the Charactron have been frozen, but some difficulties have been encountered in the aluminizing process. Use of a P11 phosphor will be attempted here to improve photography for large displays.

A light switch developed by International Telemeter will be investigated by P. Rogers.

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N. H. Taylor is going to Endicott on September 21 to discuss Endicott's effort in the display program for production machines with C. F. McElwain, J. Haddad, and others.

2. Installation of AN/FSQ-7(ED-1)

The basement of Building F is scheduled to be ready for installation of equipment on September 23, and the first floor on October 15. More planning is required to schedule and coordinate the installation of equipment. H. Wainwright will prepare a time schedule for installation of equipment in Building F. MIT and IBM responsibility will be formalized and documented. N. H. Taylor will see C. F. McElwain to ask for his help in coordinating IBM's part of the installation job. S. H. Dodd will give N. H. Taylor a list of jobs and dates. J. W. Forrester will see H. S. Cleverdon on September 20 to discuss the time schedule for Building F completion. A strong effort will be made to minimize building delays so that no change in the delivery and installation schedule for XD-1 will be necessary.

3. Plans for the Direction Center Buildings

Direction center building plans were reviewed with Air Force representatives during the week of September 13. The Air Force has asked that the two 3-phase transformer stations proposed for tie-in with the utility lines be replaced by a single station made up of three single-phase transformers with one spare transformer. The question of columns for the third floor should be restudied. The Air Force will approve plans for the first building without columns, but will consider them for subsequent buildings.

5. Plans for IBM Research

N. H. Taylor has discussed IBM's plans for advanced development as a part of Project High's activities during 1955. MIT has been asked to comment on this program, which calls for the assignment of three men to transistor circuitry, three men to magnetic-core circuits, six to ten men to magnetic-core memories, one man to liaison with MIT's advanced development program, and one man to review of older components.

6. Transfer of Information Between IBM and MIT

We should not attempt to withhold information concerning our activities from IBM. Information concerning IBM's commercial developments which are of value to the program should be made available to MIT. N. H. Taylor will arrange for D. R. Brown to visit Foughkeepsie to discuss commercial advanced development in transistor and magnetic-core techniques.

7. Group 63 X-Ray Program

An x-ray diffraction unit is being purchased to continue the basic investigation of magnetic materials in Group 63. Space for this unit will be obtained by making use of the corridor in Room C-109 for office space.

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8. Status of AN/FSQ-7(XD-1)

IBM is working three shifts on the test floor in Poughkeepsie and some testing problems are beginning to appear. Low margins have appeared in some 2-megacycle circuits and in the adder. In particular, a 7-volt margin has been found in the ripple-shift circuit. Since one third of the engineers on the test floor are MIT men, IBM has asked for permission to assign some of these men to night shifts.

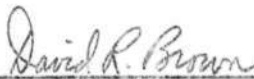
9. Meetings

The status of the FSQ-7 program will be reviewed at a meeting at the Joint Project Office on October 11 for the Assistant Secretary for Air, Roger Lewis. A preliminary meeting will be held on October 7. We must know by then whether or not Building F construction will delay the XD-1 installation program.

ADES plans monthly meetings to review the status of AN/FSQ-7 (XD-1) and (XD-2), beginning October 4.

A meeting is scheduled for September 20 and 21 to discuss the ground-to-air data link.

Signed



David R. Brown
Secretary

DRB/jk

cc: A. P. Kromer
W. K. Inwill

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