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Memorandum M-2691

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By: K.L. Everett
Date: 2-15-60

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

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SUBJECT: Group 62 Section Leaders Meeting - February 15, 1954
To: Division 6 Group Leaders; Group 62 Staff Members
From: A. P. Kromer
Date: February 16, 1954

Abstract: Arrangements to have prime responsibility for certain engineering work placed with MIT have been made in the interest of insuring adherence to July '55 date for system operation. Regular air transportation between Poughkeepsie and Cambridge is expected to start approximately March 1, 1954. Consideration is being given to possible alternate sources for Charactron tubes.

1. General Comments

In line with the proposals indicated last week further discussion has led to the following conclusions:

- 1. Output frame -- IBM will do all engineering for this item.
- 2. Display frames -- situation display generator
digital display generator
display distribution

MIT will do engineering development and equipment packaging and layout for these items.

- 3. Digital data transmission -- MIT will do development and packaging design
- 4. Installation XD-1 -- MIT will have prime responsibility for this item
- 5. Memory -- MIT will provide manpower to assist IBM in completion of engineering on this item

Regarding display equipment consideration will be given to a program for engineering this equipment and have test operation done with MTC and engineering model consoles to be built by IBM group at Endicott. This action will remove all display activity from Project High.

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General Comments (Continued)

The output data transmission (modulator-demodulator) equipment for XD-1 will be built by a subcontractor to be selected and supervised by Lincoln (Group 62 or Group 24).

Most of the above engineering and the installation labor will be handled under an arrangement with IBM whereby certain of the costs will be covered by them. The program has been established to help insure meeting the planned date of July '55 for having the full XD-1 system operational.

2. Test Planning for XD-1

MIT and IBM will start a joint program of planning the testing of the various parts of the system. Initial consideration will be given to testing each frame individually with second consideration to grouping frames for test purposes in order to minimize need for special test equipment construction and reduction of testing time.

3. Transportation between Cambridge and Poughkeepsie

Effective about March 1, IBM plans to have their new 6 passenger plane make two round trips between the two locations each Tuesday and Thursday. The following schedule will be used to start:

Leave Poughkeepsie	7:00 AM	4:30 PM
Arrive Bedford	8:00 AM	5:30 PM
Leave Bedford	8:15 AM	5:45 PM
Arrive Poughkeepsie	9:15 AM	6:45 PM

Transportation from airport at each location will be provided. Reservations for trips on this plane will be handled thru Kromer's office at Cambridge and with Burke's office at Poughkeepsie. Travel by this means is optional with each member of the laboratory. (It is suggested that each person contemplating use of this transportation should check with his personal insurance agent regarding validity of his policies. The MIT travel insurance will be valid on these flights.)

In addition, it may be possible to arrange special charter flights from Boston for groups desiring this service where the IBM plane cannot accommodate the group.

4. Meetings this week

Tuesday - at Cambridge - Logical design of output black boxes

Wednesday - at Poughkeepsie - Kinds and arrangement of switches at display consoles

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Meetings this week (Continued)

Thursday - at Poughkeepsie - Area discriminator--its application and function in system and electronic design

Thursday - at Poughkeepsie - Discussion of way to simulate aged tubes in circuit performance measurements.

5. Display System

Consideration of Dumont as a source to Convair for Charactron tubes indicates that their development has not proceeded far enough to consider them as a source for XD-1. Activity leading toward a second source for production requirements will be continued.

6. Power Supplies

Equipment for monitoring performance of the power supplies so as to provide warning and shut down alarms is being investigated.

7. Circuits

On MTC the diode switching for drum circuits will be packaged so as to be located close to the drum itself and thus minimize the number of leads running between the drum and the driving circuits.

8. MTC

As of February 8, MTC was placed on 15 hr./day operation schedule with people from other sections in Group 62 supplementing MTC section manpower as required. The 64 x 64 memory is now working in the MTC. The drum has 6 digits in each of two fields now operating. Additional digits will be added as transformers are received.

Plans are proceeding to prepare space in Building B to move MTC in latter part of April.

9. Systems Office Sign Off

Improvement in liaison is suggested between the Systems Office and persons concerned with plans for installation of XD-1 in the new building at Lexington and the communication system.

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10. Lincoln Approvals

- A. Plan for first floor and basement layout for XD-1 were approved February 10, 1954.
- B. Equipment Cooling specifications approved February 10, 1954.

Signed: A. P. Kromer
A. P. Kromer *AK*

APK:hpm

cc: J. W. Forrester
R. R. Everett

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