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Memorandum M-2837

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Auth: DD 254
By: R.R. 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 24 May 1954
To: Division 6 Group Leaders' Group 62 Staff Members
From: A. P. Kromer
Date: 27 May 1954

Abstract: Meetings with Air Force ADC have led to a plan for implementing the Air Division Combat Operations Center with a simplex FSQ-7 and a supplementary large board (projected) display. A procedure to formalize the processing of information thru the Control office to ADES, Air Force, etc. is being prepared. Modifications to the display system have resulted in a reduction of approximately 3000 tubes. MTC will be moved to Lexington starting June 7.

1. System Planning

A series of conferences with ADC and ADES were held last week to discuss the implementation of the Air Force requirements for the Air Division Combat Operations Center. Of the several alternatives considered it was agreed that the best way of meeting the requirements was to provide a stripped-down FSQ-7 computer (simplex) to accept data from the several Direction Centers in the Division and to prepare the desired summary displays, both tactical and status. The exact make-up of the equipment, i.e., frames, consoles, etc., will be determined by further study by engineering groups at MIT and IBM. In view of the heavy load on both groups a fundamental premise will be minimizing the engineering effort required for changes.

2. Relationships between Lincoln and ADES

To insure proper handling of information to be used by the various organizations involved in the program, it is necessary to formalize the transmission of information between these organizations. It is planned to have the Control Office process concurrence and release of information between Lincoln and ADES in a manner similar to the SO-EDO mode of operation for the technical aspects of the system electronics. Further details regarding the operation of the Control Office under A.P. Kromer will be covered in M-2838 to be issued in the next few days.

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3. XD-1 System Maintenance at Lexington

Discussions at Poughkeepsie regarding this subject indicated IBM willingness to provide maintenance services for XD-1. This will represent a relatively small addition to the manpower required to provide such services for duplex centrals throughout the country. The actual amount of such services has not been determined. This decision is deferred pending consideration of the situation when XD-1 is received at Lexington; i.e., how well it has performed during testing at Poughkeepsie and how much engineering activity is expected subsequently.

4. Display System

A decision to use a centralized driving system for analog voltages for character selection in the Charactron (19") display tube has permitted a saving of approximately 3000 tubes in the system.

During a visit to Hughes Aircraft Co. the addition of an extra (3rd) set of plates to the Typotron for electrostatic compensation was discussed. It was agreed that this would be tried in a few of the tubes now on order by MIT.

Convair has delivered the 3 sample tubes (complete with yoke, deflection coils and divergence coils) required by the IBM order, on schedule. In addition one tube has been delivered to MIT.

5. Memory

A new sense amplifier using considerably fewer cathodes than previous circuits has been developed and tried in MTC. The results look promising, margins are wider than previous circuits but some time constants are longer.

Construction of an experimental 128 x 128 plane has been started.

6. MTC

Power was shut off on May 21 to allow for necessary disassembly in preparation for moving the machine. The move to Lexington is scheduled to start June 7. Present plans call for operation of MTC at Lexington to start late in July.

After installation at Lexington 12 fields of drum storage will be available; also the new accumulator using high speed flip-flops.

7. Concurrence and Approval

The Flip-Flop Mod. C circuit was approved. Also the plan to defer engineering design on the cross-tell inputs and the Output System in favor of inputs for FGD, Mark X, and height finding was approved.

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Memorandum M-2837

Page 3 of 3

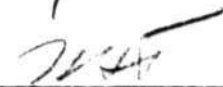
Concurrence on the color of paint for the consoles resulted in the decision to use a very light gray finish.

APK/ahm

Signed:


I. B. Kromer

Approved:


N. H. Taylor

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