

Memorandum 6M-3072

Page 1 of 3

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

SUBJECT: Group 62 Section Leaders Meeting, September 24, 1954

To: Division 6 Group Leaders, Group 62 Staff Members,  
Group 64 Staff Members (Lexington only)

From: A. P. Kromer

Date: September 27, 1954

Approved: *N. H. Taylor*  
N. H. Taylor

Abstract: Active consideration is being given to having IBM - Endicott take on the engineering responsibility for the Central Display System (Fallows' work) and the associated expanded display (projection). Combined frame testing of XD-1 is continuing with six units now working together. The Maintenance console will be redesigned for production systems. Engineering work and construction of maskers for MRI-FGD inputs are still an open question. Components for 12 most frequently used circuits released for ordering September 1. MTC now fully operational with Charactron display. Typotron to be added in October. Lincoln release of design specifications for production systems will be made on a TIR instead of a letter as used for prototype specifications.

1. Biweekly Report

Informative contributions are desired from all Staff members. This should be only brief notes of interest to other Staff. Technical data and results of lab work should not be reported in the biweekly. Duplication by several Staff members who work together should be avoided. The biweekly is intended primarily as a means of informing others of work being done and not an accounting for time.

2. Display

Discussions have been held with IBM - Endicott regarding acceptance of engineering responsibility for the production systems central display and expanded display (projection) equipment. These will be continued next week. This work would be in addition to display console work being done at Endicott for both the prototype and production systems.

3. XD-1 Systems Test

The XD-1 combined testing at Plant 2 now has the Instruction Control Program Element, Right Arithmetic Element, Test Memory, Maintenance Console (Mockup), and Card Reader working together.

4. Maintenance Console

IBM Production Engineering group are planning to prepare revised specifications for a maintenance console for production systems which will make the unit more compatible with the high maintenance capability of the Duplex system. Following preparation of this specification, redesign work will be started.

5. Miscellaneous Radar Inputs

Endicott lab has declined to undertake development and design of the masker unit for FGD inputs. Decision on where this work will be done is still to be made. Project High has agreed to provide an electronics design for data processing of MRI inputs which will make addition of maskers relatively simple at a later date. Project High does not believe that maskers for the prototype system can be designed, built and tested in time to check the design and build units for the initial production systems simultaneously with the balance of the system.

6. Output System

Recent experiments with General Electric G/A data link have revealed operational problems which would not exist with the Bell Telephone Laboratories discreet address data link system. In view of this, use of the latter system with FSQ-7 has been considered. Some changes in the Output system would be required to accomplish this.

7. Circuits

Best and Nienberg have concurred on circuits for

- a) MRI tape core shift register
- b) Manual input shift register reset circuit
- c) Shift register loading circuit
- d) MRI shift register driver

Component parts for the 12 most commonly used basic circuits were released from engineering on September 1 as scheduled for ordering.

The Production engineering group has reconsidered the plug-in unit design and are going to re-layout the etched cards. At the same time, provisions to ground the co-ax will be incorporated.

8. MTC

The machine is now in full operation (except drum). An IBM 513 machine card input will be added in a few weeks.

9. Display Console

The engineering prototype model is to be delivered from Endicott early in November for test with MTC.

The Charactron display tube is ready to be operated with MTC. Group 61 is starting to write programs for this. A Typotron DID will be added during October.

Study of the problem of photographing the Charactron is continuing. A tube with P-11 phosphur has been made by Group 65 and a camera for computer controlled operation will be available in a few weeks.

10. Production Systems

Addition of the second elevator in the D.C. building necessitates rearrangement of the Maintenance console area on the first floor. Present thinking considers location of PCD frames for consoles on the second floor to secure some space in the first floor area.

Lincoln release of design specifications for production systems will be processed by the PCO as a Technical Information Release. Initial group of these ( which have had IBM - MIT engineering concurrence) will be started immediately.

11. Meetings this week

Monday, September 20, at Lexington - Tactical telephone system for XD-1

Tuesday, September 21, at IBM - Maintenance phone system for XD-1

Wednesday, September 22, at IBM - Modulators and demodulators for production systems which the Bell System will provide.

Signed:

  
A. P. Kromer

APK/rb

cc: R.P. Crago )  
C. Lynch ) IBM  
Jay W. Forrester )  
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