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

SUBJECT: SAGE System Meeting February 14, 1955

To: See Distribution List

From: P. Bragar

Date: 14 February 1955

Approved:

A. P. Kromer  
A. P. Kromer

- Agenda:
1. Charactron Display
  2. Mark X
  3. Report on ADES Meeting on 2/8/55
  4. Power Modules
  5. Report on Meeting of 2/11/55 on Programmer Requirements
  6. SAGE Experimental Subsector Planning Activity
  7. Effect of Schedule on Specifications for FSQ-7
  8. Combat Central Specifications & Exhibit 18

1. Charactron Display

A demonstration of the charactron display in the prototype display console is scheduled for next Monday (2/21/55). A program is now being prepared to allow MTC to display an FSQ-7 simulated situation. In this way it is expected that an evaluation of the adequacy of charactron brightness and legibility will be obtained.

2. Mark X

The troubles still being experienced with Mark X data appear to result not from electronic malfunctions but rather from logic problems. Tests conducted last week indicate logical problems arising from the following:

- a. Quantization of range data before beam splitting
- b. Interruption of beam splitting as video data passes from one range box to an adjacent range box.

The possibility of the existence of similar logical difficulties with PGD will be studied and reported on by Jacobs.

3. Report on AIES Meeting on 2/8/55

a. Auxiliary Memory Drum Frames

IBM was authorized by the Air Force (letter 9 February from R. M. Paulson to IBM) to proceed with the engineering and design of any modifications to the existing system required by the additional auxiliary memory. However, authorization to start actual fabrication or affect building changes required by the addition of the drum frame has been withheld pending the results of a meeting to be held on Thursday the 24th at AIES, New York City. At this meeting Lincoln will present a written statement giving detailed background of the additional auxiliary memory requirements, IBM will submit information on equipment costs and possible effect on manufacturing schedules, and W.E. will present data on possible changes to building costs and schedules. Jacobs will prepare the justification and background statement required for presentation by Lincoln at this meeting.

b. Miscellaneous

- (1) Ground for the site of D.C. 1 has been broken at Maguire
- (2) Bids for the D.C. 2 building at Stewart will be opened on 2/15/55
- (3) IBM has commenced occupancy of the Kingston plant and expects to be occupying about 80,000 square feet by the end of February.

4. Power Modules

IBM has designed the power modules in such a manner that cooling air cannot be fed into a frame through this module. Aside from limiting future flexibility of movement of the frames, this change requires the immediate relocation of some (about 25) air supply holes in the currently approved D.C. computer floor layout. A. P. Kromer will write to McElwain requesting information on the reasons for the changes to the power modules to substantiate the changes that must be made in the building plans.

5. Report on Meeting of 2/11/55 on Programmer Requirements

Schwartz (WE) and West (BTL) were given an explanation on the role of programmers in the SAGE System and the phasing requirements for the proper number of people Lincoln believes will be necessary in connection with AIES work in implementing the system.

6. SAGE Experimental Subsector Planning Activity

A Systems Office group under the direction of Anderson is now engaged in planning the overall XD-1 activities. The two principle objectives of this committee are:

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- a. Insure mutual compatibility of the various system components.
- b. To generate a detailed schedule for XD-1 and the experimental subsector.

After schedules have been made and approved by all concerned, they will be turned over to A. P. Kromer's PCO for follow-up.

7. Effect of Schedule on Specifications for FSQ-7

The urgency of proceeding with design and fabrication of equipment in spite of the absence of fully concurred on specifications requires that all future concurrences be based on what is eventually required. Any qualifications or omissions in early machines because of manpower schedule requirements will be noted in the concurrence letters and in the T.I.R.'s releasing the specifications.

8. Combat Central Specifications & Exhibit 18

The Systems Office has set up a study group consisting of Bagley, Houseman of IBM, and a group of 61 man (undesigned) to make a thorough study of the Combat Central (AN/FSQ-8) specifications. It is not expected that the results of this study will be available before the target date of March 1 for the release of Exhibit 18 to CRC. The forwarding of the draft of Exhibit 18 to IBM this following Monday (after review by R. R. Everett) will take place as planned. Any additions to Exhibit 18 which may be revealed by the Systems Office study will be treated as changes.

SIGNED:

P. Bragar  
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FB:mmc

Distribution:

Meeting Attendants

J. W. Forrester  
R. R. Everett  
N. H. Taylor  
J. C. Proctor  
A. P. Kromer  
J. F. Jacobs  
J. A. O'Brien  
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S. H. Dodd  
C. R. Wieser  
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P. Bragar  
P. Youtz

Others

J. A. Arnow  
R. L. Walquist  
H. J. Kirshner  
D. R. Brown  
W. H. Ayer  
H. E. Anderson