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Memorandum 6L-178

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Division 6 - Lincoln Laboratory Page 1 of 3
 Massachusetts Institute of Technology
 Lexington 73, Massachusetts

SUBJECT: GROUP LEADERS' MEETING, December 27, 1954

To: Group Leaders

From: David R. Brown

Date: December 30, 1954

Present: J. W. Forrester, D. E. Brown, S. H. Dodd, R. R. Everett,
 A. P. Kromer, J. C. Proctor, N. H. Taylor, G. R. Wieser,
 and for Item 2, P. R. Bagley, W. C. Cauty, J. A. O'Brien,
 and R. L. Walquist

- Agenda: 1. Academic Courses
 2. AN/FSQ-7(XD-1)
 3. Long-Range Space Problem
 4. Engineering Support Program
 5. Large-Board Display
 6. Meeting of Installation Committee

1. Academic Courses

The Lincoln Laboratory Steering Committee, at its meeting on December 16, considered how academic courses should be presented for recruiting and education. For the Spring term the present system of presenting MIT courses in Lexington will be followed. However, more staff members will be urged to take courses, and the number of courses offered will be increased if the demand exists. Class meeting times will be arranged for the convenience of the instructor and the students.

The opportunity to take courses is undoubtedly an attractive feature in recruiting new staff members. However, the quality and accomplishments of the laboratory program are also important attractions. The value of non-credit, tuition-free courses to improve the caliber and effectiveness of the staff should also be considered. More freedom and flexibility would be possible in offering non-credit courses; every effort should be made to present well-organized courses by competent instructors. Some action will be taken to set up a program for offering non-credit courses. A Division 6 staff member will be appointed to take charge of the program. Those nominated for the post include R. S. Rich, J. B. Goodenough, T. H. Meisling, J. F. Jacobs, and D. R. Israel.

2. AN/FSQ-7(XD-1)

R. L. Walquist presented a new set of time schedules for XD-1 programming. These call for present manpower plus two or three new staff before June 1955. These schedules call for equipment when the programmers

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Memorandum 6L-178

Page 2

are ready to use it. The central computer is required to test utility programs beginning April 1, 1955. During April, two hours per day with 90 percent of this time usable are required. R. L. Walquist will provide J. W. Forrester with a definite and noncontroversial check list to determine progress with respect to the time schedules at two-week intervals. The programming time schedules will not be meshed with the equipment time schedules at the present time. J. W. Forrester will send R. L. Walquist's schedules to IBM and ask IBM to meet these schedules. R. L. Walquist will prepare a draft of a letter for J. W. Forrester on December 27.

The question whether or not XD-1 is now in good enough condition to be shipped to Lexington was discussed. The Daily System Test Summaries written by IBM indicate considerable trouble. No marginal checking has been done on the system for the last six weeks. Considerable difficulty has been reported with tubes. Trouble location is requiring more than 50 percent of the time.

A test, or series of tests, to determine the condition of XD-1 at Poughkeepsie was proposed for the week of December 27. The proposed schedule for the test is as follows:

Between 9:00 am and 11:00 am run each of 11 test programs, including seven test programs for the central machine, three memory test programs, and one test program for manual input. Run each of the programs for four minutes, except those requiring a longer time for card handling or manual input. Each program must run error free. Between 11:00 am and 1:00 pm measure margins using an appropriate test program for each frame. Ten-percent margins will be required on each margin group. Between 1:00 and 2:00 pm the machine will be shut down. The machine will be turned on at 2:00 pm and the time until 2:30 will be allowed to get the machine into operation for a reliability run. The reliability run will use a comprehensive test program or two or three less comprehensive test programs between 2:30 and 4:30 pm. A maximum of one error for each twenty minutes operating time will be allowed, and a maximum of 20 minutes inoperative time will be allowed. Beginning at 4:30 pm a series of mechanical tests will be conducted. These mechanical tests will include tube tapping. One intermittent tube in 50 will be allowed, and one permanent failure in 1,000 will be allowed. The 60h mallet test will be carried out on the ends of frames. Plug-in units will be moved in place, within the freedom of the lock; one error per frame will be allowed. Plug-in units will be removed and reinserted; one failure in 100 will be allowed. Plug-in units will be exchanged for spares; one failure in ten will be allowed.

J. W. Forrester called C. F. MacElwain to discuss these proposed tests with him. N. H. Taylor will visit IBM on December 28 to discuss the proposed tests in greater detail.

3. Long-Range Space Problem

IBM personnel are to be stationed on the top floor of Building F until the display system arrives. A total of 80 IBM personnel will be

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Memorandum 6L-178

Page 3

displaced when the display system is installed and some other space must be made available for them.

A proposal for what should be done should be made to J. W. Forrester, including a comparison of the ratios of maintenance space to total space in different installations.

4. Engineering Support Program

A rewritten version of IBM's proposal for an FSQ-7 engineering support program has been reviewed by S. H. Dodd and A. P. Kromer. The proposed breakdown of the budget, manpower, and time schedule appears to be unreasonable. The advanced development is unnecessarily separated from the main effort and is too large a portion of the total effort. S. H. Dodd will communicate MIT's comments to IBM.

5. Large-Board Display

J. W. Forrester will see G. E. Valley to discuss giving responsibility for the large display to F. Rodgers.

6. Meeting of Installation Committee

The Installation subcommittees meet with the main installation committee during the week of January 3 to discuss objectives. A large meeting will be held January 20 to present results to Lincoln Laboratory, IBM, and ADFS. A written report is expected by February 1.

Signed

David R. Brown
David R. Brown
Secretary

DRB/jg

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

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