

Memorandum 6M-3404

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

SUBJECT: IBM ENGINEERING SYSTEMS OFFICE CONCURRENCE MEETING NO. 16

To: S. H. Dodd

From: B. E. Morriss

Date: 28 February 1955

Approved: 
S. H. Dodd

Abstract: The long-range radar and gap-filler radar input specifications were discussed and concurred upon with minor modifications. Present at the meeting were A. D. Hughes, J. P. May, B. E. Morriss of MIT and D. C. Ross, C. E. Walston, H. J. White of IBM.

1.0 SPECIFICATIONS

The meeting opened with a short discussion as to how the specifications should be written in general. It was agreed insofar as possible that the specifications would be written as final specifications and that supplements would be written giving the deviations from these specifications to which IBM and Lincoln jointly agree for initial machines. Specifications prepared to date are somewhat confusing because some have been written to describe what is agreed as initially necessary with no mention of desired improvements, while others have been written including items which IBM has indicated will not be initially supplied and which Lincoln agrees are not initially necessary.

2.0 LONG-RANGE RADAR INPUT

6M-3276 and Supplement 1, Long-Range Radar Input Specifications for AN/FSQ-7, have been previously proposed as the basic specification for the LRI. These specifications were agreed upon as being, in general, adequate with the modifications included in the concurrence letter. Major modification was the deletion of the portions of the specifications stating the detailed method of implementing the monitor. It was agreed that the monitors would be more fully covered in an additional specification. Lincoln Memorandum 6M-3386, Long-Range Radar Input Specifications for Initial AN/FSQ-7 Machines, was then discussed. The intent of this document was to list those items covered in the specifications which would

be difficult to include in initial machines and which, while offering improved operation, were not considered significant enough to justify adversity affecting delivery schedules. These items in general were not included in XD-1 design and are difficult to add because other modifications to the XD-1 design have used up all spare space in the modules. Therefore, it is expected that their addition will require a change from a packaging of two LRI input channels per module to one channel per module. These specifications were agreed upon with a single exception. Lincoln has previously indicated some method of monitoring the LRI inputs is considered necessary in the initial machines and this note indicated that at least a preproduction model of the monitor was considered necessary. IBM people present stated that they were in no position to agree to the supplying of any kind of monitor initially and this would have to be settled at a higher level. The specification was concurred upon with the statement that the monitor be a subject of separate discussion and that the need for resolving this question would be advertised.

3.0 GAP-FILLER RADAR INPUTS

IBM documents D-34-1, Duplex Central Specification for the Gap-Filler Input Mapper Consoles, and D-35-1, Duplex Central Specifications for Gap-Filler Input-Mapper Counter Frame, were proposed as the basic specification for the gap-filler input equipment. These specifications were concurred on with the qualification that they would be considered specifications for the initial machines only and a set of ultimate specifications would be prepared in the near future. The mapper supervisor's position was not discussed or considered in either of these two specifications. It is to be discussed in a separate specification but is expected to have a significant effect upon the mapper counter frame and the mappers themselves. Some of the questions to be considered in the preparation of the final specifications are:

- a. The probability of mappers falling out of synchronization when the duplex switch is thrown;
- b. The addition of an alarm to detect failures in the drum demand system;
- c. The ability to semiautomatically change identity on the spare channels;
- d. The maximum cable length necessary between mapper counter frame and mappers which is now specified at 110 feet.

Modifications to the specifications contained in the concurrence letter were: a.) The excess data indicator should appear on the simplex maintenance console as well as the mapper console; b.) The specification for the allowable jitter covered in paragraph 2.5.2.1 reading 5 and 10 per

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cent should be changed to +5 and 10 per cent.

Signed: B. E. Morriss

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