

Memorandum M-2177

Page 1

Digital Computer Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

SUBJECT: PREPARATION OF TECHNICAL INFORMATION FOR COMPONENTS OF
LINCOLN TRANSITION SYSTEM

To: R. R. Everett

From: A. P. Kromer

Date: May 19, 1953

It is necessary for Lincoln Laboratory to furnish information to AFCRC regarding the technical engineering aspects of the equipment which will comprise the prototype models of the Lincoln Transition System. This data will be used by the Air Force as the basis for a contract with IBM covering the procurement of the prototype models.

The information will probably be assembled into the form of a report issued by Lincoln Laboratory to the Air Force. This report will then be included as an attachment in the contractual papers negotiated between the Air Force and IBM.

The attached sheet covers the principal types of information which should be provided for each portion of the System. This information must be prepared promptly and should be in form so that a minimum of editing will be required. The material should be forwarded to me, in Room W3-425, by May 29th. Since certain IBM personnel have participated in engineering investigation of some phases of this equipment, arrangements will be made to have their engineers review the work done to date upon request to me.

Several samples of Air Force specifications in final form are available for review in my office. These do not apply to components of our System, but will give some indication of the amount of detail which ultimately must be included in the final Air Force specifications.

Signed:


Arthur P. Kromer

Approved:


Norman H. Taylor

APK/mmt
Attachment

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

TECHNICAL INFORMATION FOR COMPONENTS OF LINCOLN TRANSITION SYSTEM

The technical information for each item of the System should be prepared, to the extent that it is now known, in narrative or other suitable form per the following outline. Subjects shall be treated in the sequence as listed below. All requirements should be treated in a definitive but broad manner, since the inclusion of specific details at this early stage in development probably would entail an extremely large number of changes at a later date as design work is completed.

Requirements:

All essential requirements and descriptions applying to the item shall be specified. Neither requirements properly a part of another section nor test procedure applicable to any specific component should be included here. In general, the requirements will refer to the principal components, principal material, design, performance and product characteristics, details of components, physical requirements, dimensions, weight and product marking. Subjects not applicable to the item being described should be omitted.

All the principal parts or components required to make up the item should be named.

Material:

All reference to material should be specified, designating the character or quality of the principal and other materials. Material requirements of a general nature should be specified first, followed by reference to specific requirements for material for component parts.

Design:

The major design characteristics should be considered under this heading. They are the overall functional characteristics, not the details.

Performance and Product Characteristics:

General and detailed performance and product characteristics should be included here, i.e., inputs (video and power), outputs, operation speeds, range, controls, etc. Each requirement should be specified, at least briefly. Performance requirements should not, however, be interwoven with test procedure.

Details of Components:

The requirements for individual components of a complete unit should be specified. In general, each component should be covered by a separate paragraph. Each component heading may have sub-paragraphs as is applicable.

Chemical and Physical Requirements:

Chemical and physical properties should be specified if significant with respect to the item of equipment being described.

Dimensions:

The overall dimensions and tolerances should be specified. If a figure is included showing the dimensions and tolerances they need not be repeated in the text, but a reference should be made to the figure.

Weight:

The weight of the item should be specified here. This should include all components that make up the complete unit. It is not desirable to specify the weight for each component unless there is a logical break-down of the unit.

Marking:

Data which will be used to prepare the required name plate or marking information should be provided here, including applicable data regarding voltage (AC or DC), amperes, watts, range, etc.

Test Conditions:

Test requirements and procedures for testing should specify the information needed in order to conduct tests necessary to determine compliance with the requirements indicated above. The types of inspection test to be conducted, that is, individual, sampling, etc. should be designated.