

29 JUL 1961

The Honorable Robert S. McNamara
The Secretary of Defense
Washington 25, D. C.

Dear Rob:

The United States Intelligence Board has for some time been concerned about the security problems attending the use of flexowriter-type equipment for intelligence purposes. We have on several occasions re-emphasized the need for resolving this problem to the Communications Security Board.

As you know, this type equipment produces message tapes as part of the typing process. These tapes can in turn be fed into communications equipment and also serve as machine language input into intelligence data processing systems.

Provided the security problem can be overcome, flexowriter-type machines will be used increasingly at medium-sized and small foreign posts, by the State and Defense Departments as well as CIA. We should therefore seek to avoid multiple maintenance problems at these posts, to simplify physical security arrangements and inspections, and to facilitate mutual use of equipment in case of breakdowns.

To that end the Intelligence Board has formulated and approved the attached statement of DMB Equipment Requirements for Remote Systems Input Device.

A close relationship exists between the research and development required to obtain the needed equipment and the solution of the communications security problem in its use.

Since the Department of Defense is executive agent for communications security matters, the Intelligence Board concluded that our requirements should

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be sent to you. It is the Board's hope that you can promote the development of this device so that the Intelligence Community can at the earliest possible date standardize on a piece of equipment which is not only more versatile than presently available commercial models but also free of unacceptable security hazards. Moreover, I understand that there are many applications for this equipment outside the intelligence area.

General Erskine and Mr. Dailey of your office are well aware of the Board objectives and the problems involved. My own staff is of course available to work with your representatives should additional information be required.

Sincerely,

Allen W. Dulles
Director

Attachment

USIB Equipment Requirements for Remote Systems Input Device

cc: Deputy Director/Plans
Deputy Director/Support
Director of Communications
Director of Security
Executive Secretary, USIB

Distribution:

Orig. & 1 - Addressee
1 - As above
1 - DCI
1 - DDCI
1 - ER
1 - DBI
1 - AD/CR
2 - OAD/CR

AD/CR:PABorel:jec(27 July 1961)

UNIB EQUIPMENT REQUIREMENTS FOR REMOTE SYSTEMS INPUT DEVICE

1. This is a statement of UNIB requirements for an input device to be used in typing classified information at diplomatic establishments and other jointly used installations abroad. The statement has been formulated by the UNIB/CODIB Working Group on Remote Systems Input. The requirements listed include those common to all participating agencies, as well as those of major significance to one or more agencies. They will be the basis for developing agreed engineering specifications for a common use machine which will be operable by 1965.

2. Objectives:

- a. To produce reports in a machine processable language and medium as a byproduct of the original typing by the reporting activity.
- b. To transmit this information to the processing centers concerned for further dissemination, the mode of communication depending on the urgency of the information contained in the report.
- c. To put the reports into EDP systems with a minimum of human intervention.
- d. To use the same equipment to prepare information for transmission to the reporting activities.

3. Requirements for Input/Output Typewriter:

- a. The typewriter should be able to produce a machine processable language on a medium such as paper or magnetic tape as a byproduct of typing, and should be able to automatically type when reading this byproduct at a speed of 120 words per minute or faster.
- b. Standard four-bank keyboard with upper and lower case letters, digits, and those typing and programming functions, and special characters, which are determined during the preparation of engineering specifications to be needed by each agency. See example of keyboard layout attached.
- c. Provision for programming; that is, the capability for automatically controlling the functioning of the typewriter, including the automatic typing of repetitive and control data, to insure formatting of records to be processed into an EDP system. The typewriter should be designed to require the minimum exercise of operator judgment.

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d. Equipment easy for average typist to use, including provision for a simple and easy method for correcting the machine language byproduct of typing.

e. Safeguards against interception of information.

f. Safeguards against accidental or deliberate erasure of reports in transit, if magnetic storage is involved.

4. Coding Requirements:

A coding structure is required which can carry the full range of information typed through both the telecommunications and the data processing systems while retaining the capability for reconstituting the original language, including the distinction between upper and lower case, at the output terminal. This must be accomplished without exceeding the internal limitation of 64 code combinations imposed by the computer systems now planned by member agencies. This includes provision for the direct acceptance of the machine byproduct into then-standard communications equipment. For planning purposes it is assumed that both 9- and 5-channel communications equipment will be in use at diplomatic and other jointly used installations abroad in 1965. Coding requirements for communications which must pass through 5-channel equipment include:

a. A 9-channel code which does not lengthen teletype message significantly.

b. A 5-channel code which is sufficiently compatible with the Baudot code to make possible the monitoring of messages during handling by communications personnel.

5. Other Considerations:

Features which should be weighed in evaluating the merits of competing devices include:

a. Office Use - equipment should be quiet, compact and durable.

b. Maintenance - telecommunications wire technicians, or their equivalent in technical skill, should be able to maintain the equipment with a few weeks' special training.

Appendix 1: General Security Specifications for Equipment Development

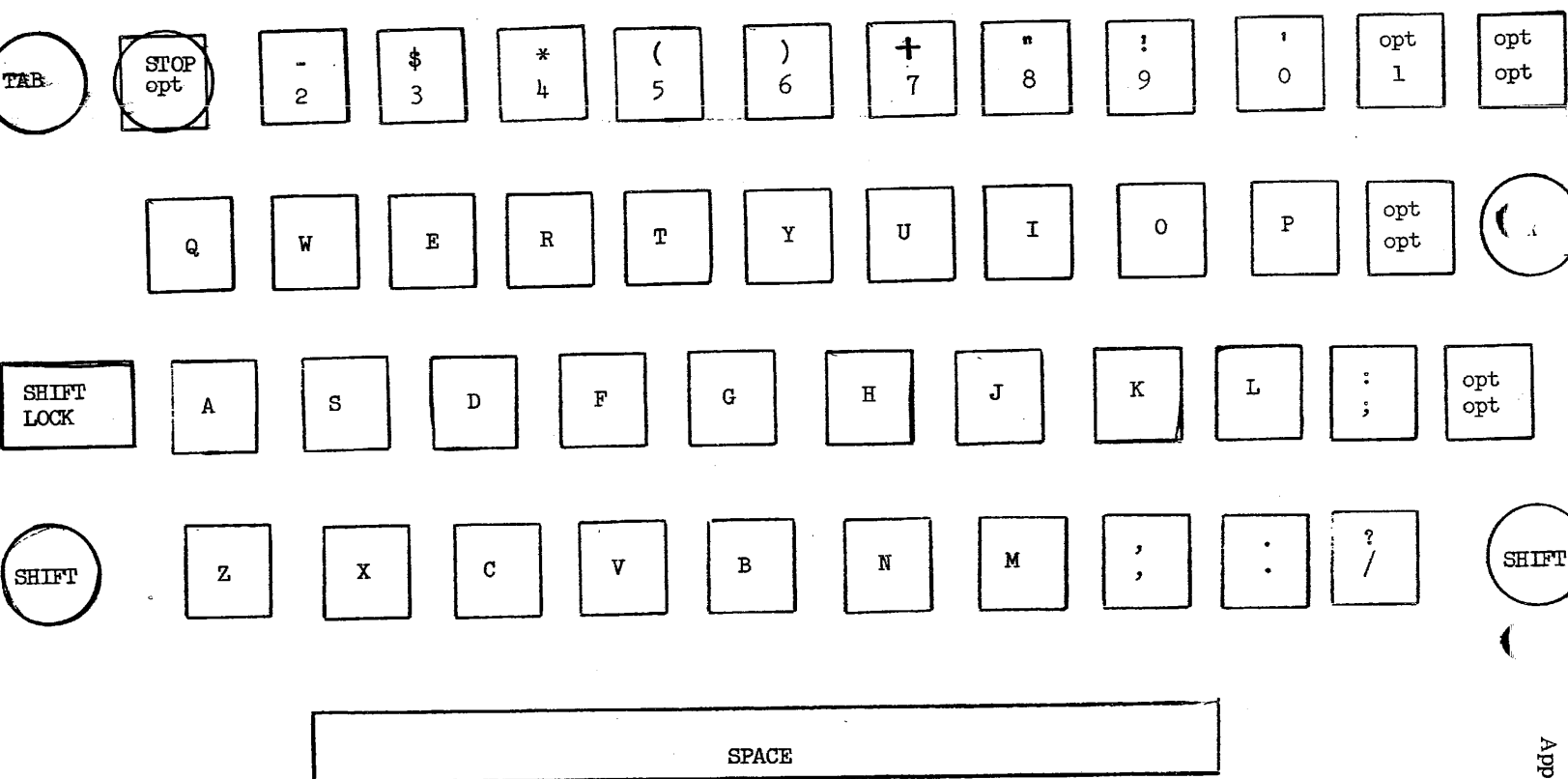
Appendix 2: Illustrative Keyboard Layout - 4 Bank, 44 Keys

25X1

Approved For Release 2005/07/20 : CIA-RDP80B01139A000200110015-4

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ILLUSTRATIVE KEYBOARD LAYOUT - 4 BANK, 44 KEYS



1. Special Characters: The 15 shown common to Defense Fielddata and CIA. 8 Optional Characters Available.
2. Functional Codes: TAB, SHIFTS, CR, STOP and SPACE Shown.
3. Coding Combinations: With 64 Code Combinations, 28 Special Characters and Functional Codes Possible.