SPSIS-1A 26 June 1945

MEMORANDUM FOR COMMANDING OFFICER, SIGNAL SECURITY AGENCY

SUBJECT: The Japanese Army Problem

DISCUSSION

1. The Japanese Army Problem at the Signal Security Agency was surveyed by the Control Officer during the months of April, May and June 1945. Associated with the Control Officer in this study was the Assistant Director of Communications Research. A representative of the Chief of the Intelligence Division was present at all the meetings. The procedure followed was to trace the course of Japanese Army traffic from its receipt at the Signal Security Agency to final publication as translated messages and to study in detail all units through which the traffic passed, with particular attention to the organization of these units, their procedures, utilization of personnel, and their general relationship to the other units concerned with the problem. While no attempt was made to cover completely the technical processes involved, still as these processes are basic to the problem, they were reviewed in considerable detail, with explanations being given by qualified experts of each unit.

2. The principles of work measurement and management for control methods were discussed, and the possibility explored of a further, if gradual, introduction of these methods into operations. Problems of a more or less routine operational nature, such as adequacy of illumination, promotions, etc., were handled, as far as possible, as the survey progressed, by reference to the proper agency.

3. Each unit prepared a check list, attached herewith as Tab A. Floor plans were made up and the flow of material checked. It was deemed unnecessary to make detailed flow charts of hand-carried material. The preparation of the check list not only insured that each survey followed the same general pattern, but also its preparation necessitated a careful analysis by the section chief of operations, with the result that he, himself, discovered many improvements in operations, which he could effect immediately, or bring up at the general meeting for discussion.

4. Following the preparation of the check list, meetings were held with each unit. A report of each unit was prepared by the Control Office, submitted to the section chief for approval, and returned to the Control Office.

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5. The reports on each section are attached herewith as Tabs B through M. (Note: The reports on the sections of Traffic Analysis and Central Branch concerned with the Japanese Army Problem have been submitted previously under separate cover.) This report, therefore, will concern itself only with the overall picture of the Japanese Army Problem at the Signal Security Agency, and will be considered under the following topics:

a. Necessity for improved integration or coordination between the various units concerned in the Japanese Army Problem.

b. Necessity for the elimination of duplicate or parallel procedures.

c. Necessity for continuous study for elimination of unnecessary operations, duplication of filing, and unwarranted research.

d. Necessity for introduction and use of such work measurement standards as are practical, the consideration of work simplification processes, and the use of management tools, all of which are outlined generally in Army Service Forces and Office of the Chief Signal Officer publications on the subject.

e. Necessity for a thorough analysis regarding the most practical method of complying with the priorities required by G-2.

6. Necessity for improved integration or coordination between the various units concerned in the Japanese Army Problem:

a. It will be noted by the chart, attached herewith as Tab N, illustrating the course of Japanese Army traffic, that a messages passes through approximately 16 different units, depending upon the copy of the message. The liaison now existing between these units is largely dependent on such personal arrangements as are made or have been made by the individual unit chiefs or their subordinates. This manner of establishing relationships is good, so far as it goes, but it is entirely too local in effect, and does not make for a generally coordinated operation of the whole, which can only be obtained by an overall coordinating agency responsible for the integration of the whole Japanese Army Problem.

b. It is essential that there exists some such coordinating agency to coordinate all inter-branch activities of the Japanese Army Problem. It is believed this can best be accomplished by appointing a qualified individual as coordinator, responsible to the Chief of the Intelligence Division. This individual would also be Executive Secretary of the Japanese Army Coordinating Committee, and would have supplied to

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him such personnel as he would require to accomplish his mission. This would not require additional personnel, and in fact, should result in reduction of personnel through elimination of duplication. He would be continually conversant with the Operations of the Military Cryptanalytic Branch, the Traffic Analysis and Control Branch, the Language Branch, the Machine Branch, the Communications Branch, and the Information and Liaison Branch. His duties would include the supervision of such matters as the following:

(1) The preparation of the Weekly Report.

(2) The operation of a message center for coordinating outgoing wires and documents and the dissemination of incoming wires and documents.

(3) Coordination of liaison with the Military Intelligence Service, the Navy and other centers.

(4) Establishment of IBM priorities.

(5) Operation of the Control Room.

(6) Coordination of inquiries from the Military Intelligence Service to various branches.

(7) Administration of records and files (which already have been set up.).

This need of integration is thoroughly realized by the operating units, and great progress has and is being made, through exchange of personnel.

c. At present, personnel of the Military Cryptanalytic Branch, Language Branch, Traffic Analysis and Control Branch, and Machine Branch are on a temporary or permanent exchange basis so that their technical ability can be combined. In the case of the Language Branch, 75 of its personnel are now physically located with the Military Cryptanalytic Branch, and the Military Cryptanalytic Branch has a small group located with the Language Branch, while the Traffic Analysis and Control Branch has representatives in both units.

d. The fact that the exchange of personnel has achieved such good results so far, is proof that a further coordination is essential, which, it is believed, can best be accomplished by the coordinating agency referred to in the foregoing.

7. <u>The necessity for the elimination of duplicate or parallel procedures:</u>

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a. This situation is created by the fact that instead of studying existing channels or procedures with a view to introducing modifications to secure a desired result, a parallel in procedure is often established which in great part duplicates the work of the existing unit. Again, this arises from the lack of any coordinating agency which is thoroughly familiar with the technical potentialities of all the units concerned. A unit, in desiring to achieve a solution to a new problem, and being unaware of an improvement of method in some other unit, will fail often to realize that the improvement would permit the easy accomplishment of the mission by means of the already existing procedure.

b. An example of this is in the advances of procedure made by the Machine Branch. Only recently have some of the operations of the Traffic Analysis and Control Branch been transferred to the Machine Branch, which that section can easily accomplish, whereas had the coordinating agency existed, as suggested, this transfer would have been accomplished many months previously.

c. Other examples of superfluous parallelism exist, and there is some duplication even within sections of the same unit. These are discussed in detail in the reports on each section. That this duplication of procedure exists is not justly a criticism of any individual unit. Each unit is occupied with its own work, and generally does its utmost to meet the requirements established, but not being aware of operational details of other units, operations are duplicated either in whole or in part, which often could be avoided.

6. <u>The necessity for continuous study for elimination of unnecessary operations, duplication of filing, and unwarranted research:</u>

a. This should be a function of the proposed coordinating agency. The calculation made by the recently appointed Chief of the Central File Index, shows that there were over 500 different sets of files within the Intelligence Division alone. It should be emphasized that we do not refer to file cabinets, but to sets of files, which vary from an entire filing section to a small desk set of files. Already certain files have been consolidated or eliminated. Others are in process of having their material which is not used in operations removed and either destroyed or permanently filed in the basement of the cafeteria. But the point is that although in some instances a filing system may be valuable only to one individual or one unit, in many instances, this is not the case, and the same filing unit can serve many sections. The Chief of the Central File Index is now preparing a study on this subject for the Chief, Intelligence Division.

b. A logical integration of filing systems would constitute one of the greatest steps towards eliminating unnecessary personnel, establishing a better integrated operation, and making available additional floor space, which is badly needed.

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c. In regard to research, some research is undertaken without sufficiently weighing either the necessity for the study or ascertaining whether or not the subject is already covered by studies either in progress or on hand elsewhere. The responsibility for authorization of all non-routine or non-operational research should be definitely placed and no research permitted without thorough investigation and authorization.

9. The necessity for introduction and use of such work measurement standards as are practical, the consideration of work simplification processes, and the use of management tools, all of which are outlined generally in Army Service Forces and Office of the Chief Signal Officer publications on the subject:

a. With the notable exception of the Machine Branch, work measurement standards are not in use on a definite basis. Each section chief apparently does possess a fairly well defined idea as to work measurement standards for his section, but this measurement is largely a matter of opinion, and generally is not based on actual statistics.

b. While in many of the operations at the Signal Security Agency it appears, on the surface, very difficult to establish standards, still it is certain that with a gradual introduction of work measurement standards into the operation, it will be found that many of the operations now believed to be impossible to measure, can be measured, and the work standardized. This is a matter which will take several months to perfect, but each operational unit should initiate the necessary records so that practical standards may be established.

10. The necessity for a thorough analysis regarding the most practical method of complying with the priorities required by G-2.

c. This requires a thorough study which can best be accomplished by the coordinating officer, working directly with the Military Intelligence Service representatives, and those various units where the actual selection is made. It is the intention of the Control Office to make this analysis, but in order not to delay, it will be submitted separately at a later date.

RECOMMENDATION

1. That an officer be designated as coordinator of the Japanese Army Problem and Executive Secretary of the Japanese Army Coordinating Committee, reporting directly to the Chief of the Intelligence Division.

2. That this officer review with the Control Office the separate surveys made for each section studied, and make necessary recommendations to the Chief of the Intelligence Division, to insure coordination of the Japanese Army Problem.

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3. That the Chief of the Intelligence Division authorise all research other than operational or routine, now in process or to be undertaken in the future.

4. That for the present the Intelligence Division remain generally as presently administratively organized.

5. That records be maintained in all units where work measurement is practical so that work standards may be later established.

6. That the Japanese Army Problem coordinator collaborate with the Control Office in an analysis as to methods to effect compliance with G-2 priorities.

CONCURRENCES

14 Incls
1. Tab A - Check List
2. Tab B - SPSIB-2A
   Report w/ 3 incls
3. Tab C - SPSIB-2B
   Report w/2 incls
4. Tab D - SPSIB-2C
   Report w/3 incls
5. Tab E - SPSIB-2D
   Report w/2 incls
6. Tab F - SPSIB-2E
   Report w/2 incls
7. Tab G - SPSIB-2F
   Report w/2 incls
8. Tab H - SPSIB-2G
   Report w/2 incls
9. Tab I - SPSIB-2H
   Report w/4 incls
10. Tab J - SPSIB-3
    Report w/1 incl
11. Tab K - SPSIB-4
    Report
12. Tab L - SPSIB-5
    Report
13. Tab M - SPSIB-8
    Report w/1 incl
14. Tab N - Jap Army Flow Chart

JAMES H. FRIER, Jr.
Major, Signal Corps
Control Officer

CONTROL OFFICE SURVEY

1. A continuing survey of operational and administrative procedures is being conducted by the Control Office in order to:

a. Discover any possible improvements which may be effected in operational efficiency.

b. Evaluate use of personnel and space.

c. Examine relation of unit surveyed to other units.

2. No claim is made by those conducting the survey as to technical knowledge which would permit them to originate suggestions of value as to the techniques employed. However, by a review of operations, those experienced in each are themselves led to suggest possible improvements, and hence, it is from this personnel that the most worthwhile suggestions are expected.

3. Sometimes operations are in effect where output does not justify the expense involved, but are continued only because of habit. Files are continued which are unnecessary.

4. Also, operatives have ideas as to possible improvements which they have not effected because of lack of time to interrupt their daily work. A survey such as this affords the opportunity to discuss all phases of the operation of each unit; to examine all ideas and suggestions as to possible measures to improve procedure; to eliminate unnecessary work; reduce reports; in a word, to review all activities of each unit.

5. It is desired to interrupt operations as little as possible, and the attached check list is a step towards this end. The check list should be completed and returned to the Control Office with the requested material attached.

MATERIAL REQUIRED AS PRELIMINARY TO SURVEY

1. Space allocation - to be prepared by Control Office.

2. Work flow chart - on 1 above, draw in the flow of work.

3. Organization chart of unit. (If one is not available, furnish a rough diagram to Control Office.)

4. Data on assigned personnel:

   a. Number of officers — Male_____ WAC _____

   b. Number of enlisted personnel — Male_____ WAC _____

   c. Number of civilians _____

   d. Total _____

CHECK LIST FOR INVESTIGATIONS

1. The following questions are to be answered as briefly as possible:

   a. Mission - Statement of mission (general) by subsection.

   b. Operations:

      (1) What units work in close liaison with your section?

      (2) If applicable, state volume of work handled, indicating if it is increasing or decreasing, by subsection.

   c. Personnel:

      (1) How many shifts and number of personnel on each shift?

      (2) Is personnel assigned adequate for mission? If not, state requirements by subsection.

(3) Have requirements been requisitioned?

(4) Difficulties arising pertaining to personnel.

(a) Promotion.

(b) Dissatisfaction.

(c) Others.

d. Space:

(a) Is space adequate? If not, state requirements.

(b) Is location convenient for contact with other sections with whom you work?

e. Lighting:

Is lighting adequate?

f. Files:

(1) What files are maintained? (be specific)

(2) How long is material kept?

(3) Suggestions for eliminating unnecessary files or disposing of obsolete files.

(4) What functions and records have been discontinued in last six months?

g. Correspondence - What type is carried on?

h. Reports.

(1) What reports are rendered by each unit, and what distribution is made?

(2) Suggestions for eliminating unnecessary reports.

(3) What is used as reference material, how handled, how long kept?

i. General - Suggestions as to steps possible for improvement in operation of your unit?

TAB
B

SERVICES SECTION, SPSIB-2A
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

1. The mission of the Services Section, SPSIB-2A, Military Cryptanalytic Branch, is to administer and provide such services as will maintain the efficient functioning of the Military Cryptanalytic Branch and aid in the accomplishment of its mission.

2. This section is composed of five subsections, as illustrated on the organizational chart, attached as Inclosure 1.

3. The Services Section maintains liaison with all the sections and units of the Military Cryptanalytic Branch, with the Training Branch, and with the Records Administrator of Signal Security Agency. The Secretarial Pool and Art and Charts Subsections furnish services by request, and when possible, to other branches of the Intelligence Division. The Training Subsection trains personnel from other branches and agencies as requested.

4. Personnel.

a. The following is a list of the personnel employed in the Services Section:

Male Officers	- 1
WAC Officers	- 0
Enlisted Men	- 0
Enlisted WAC	- 11

Military Personnel - 12 (6 officers in training at present)

Civilians 125-175 (depending on number of trainees)

b. The foregoing personnel work on two shifts - Day and Swing shifts.

c. The present personnel is adequate to fulfill the mission of this section.

d. In reviewing the Services Section, it has been noted that any personnel problems that arise are due to the difficulty of obtaining promotions. This is particularly true in the Secretarial Pool and Message Center Subsections, where existing job allocations make promotions impossible. In regard to this matter, the Personnel Branch has been contacted. This branch has investigated this situation, but is unable to change the grades.

5. Space.

a. The Services Section is located in the headhouse, second floor, Operations "B", and in the 6th wing, second floor, Operations "A". A floor plan of this section is attached as Inclosure 2.

b. The space presently assigned to this section is considered adequate. The subsections of the Services Section are conveniently located for work with other sections and subsections, except for the Training Subsection, which is located in Operations "A".

6. The lighting facilities are considered adequate in most cases, although it would be desirable to have desk lamps for the personnel who work on the night shift in the Secretarial Pool Subsection and the Message Center Subsection. The Supply Branch has been contacted in regard to this, and additional desk lamps will be provided when available.

7. The following are the functions performed and the files maintained by each subsection:

a. Training Subsection, SPSIB-2A1.

(1) The function of this subsection is to direct and conduct the training of all new personnel - both military and civilian - assigned to the Military Cryptanalytic Branch. This training consists of the cryptographic and cryptanalytic training of personnel of other branches or agencies to be assigned to the Pacific Theatre, and the refresher and advanced training of selected personnel within the branch.

(2) The following files are maintained in this subsection:

(a) Training materials.

(b) Confidential personnel records.

b. Message Center Subsection, SPSIB-2A2.

(1) The purpose of this subsection is to record and summarize incoming telegrams, prepare and maintain a file of outgoing telegrams, prepare for forwarding by mail all technical data sent by safehand. At the present time, the Message Center Subsection is processing approximately 2,200 outgoing radiograms, 800 incoming radiograms, 75 air mail packages, and 75 cover letters for safehand packages per month, and this quantity is increasing steadily.

(2) The following files are maintained in this subsection:

(a) Incoming radiograms.

(b) Outgoing radiograms.

(c) Air mail cover letters.

(d) Summaries of incoming radiograms.

c. Documents and Records Subsection, SPSIB-2A3.

(1) The mission of this subsection is to maintain records of the disposition of all incoming and outgoing documents and official correspondence; maintain a file of documents; make and keep an index of subject matter of documents; maintain a file of all Japanese Army cryptanalytic data recovered at the Signal Security Agency and cooperating centers, and reproduce and publish such of it as is necessary in the further pursuance of cryptanalytic work; supervise the preparation, compilation, and distribution of periodic production and progress reports and information bulletins. Documents and Records Subsection processes an average of 800 documents per month, and this quota is increasing.

(2) The following files are maintained in this subsection:

(a) Documents.

(b) Incoming and outgoing reports.

(c) Production material (keys and squares).

(d) System books.

(e) Fanfolds.

d. Secretarial Pool Subsection, SPSIB-2A4.

(1) The function of this subsection is to produce in typed and reproduced form weekly reports on the Japanese Army Communications Problem; to prepare various other reports, studies and correspondence in typed form; to prepare stencils and requisitions and to follow up all mimeograph and ditto work for the Military Cryptanalytic Branch; to furnish stenographers for regular and special meetings as required. The volume of work consists of the typing and cutting of stencils at the rate of 4,500 pages per month, and this is steadily increasing.

(2) The following files are maintained in this subsection:

(a) Original manuscripts of weekly reports.

(b) Ditto stencils.

(c) Production records.

(d) Requests for forms.

e. Art and Charts Subsection, SPSIB-245.

(1) The mission of this subsection is to prepare all posters and charts for use in branch administration, operations, services, and research; and to maintain charts showing the progress made on all systems, using data furnished by the Operations Officer. The amount of work varies, because of the size and complexity of the jobs requested. There are currently 2 persons employed in this subsection.

(2) A file of the art materials is the only file maintained in this subsection.

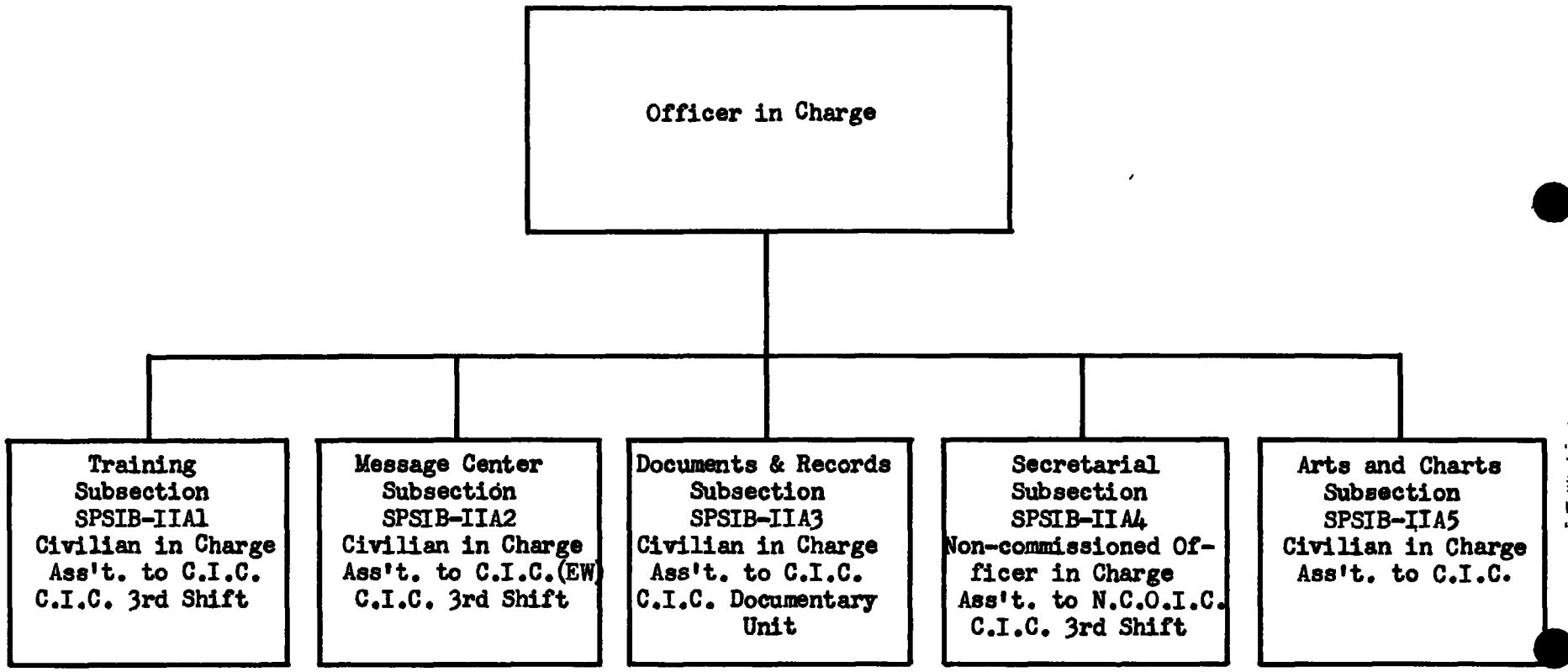
8. The reports maintained by the Services Section consist of daily production reports to the Chief, Military Cryptanalytic Branch, and a monthly report to the Chief, Training Branch, and to the Office of the Chief Signal Officer. A blank form used for this report is attached herewith as Inclosure 3.

9. The reference material utilized by this section consists of cryptographic and cryptanalytic data, which is filed in the subsections needing it, and is kept as long as it is useful in operations.

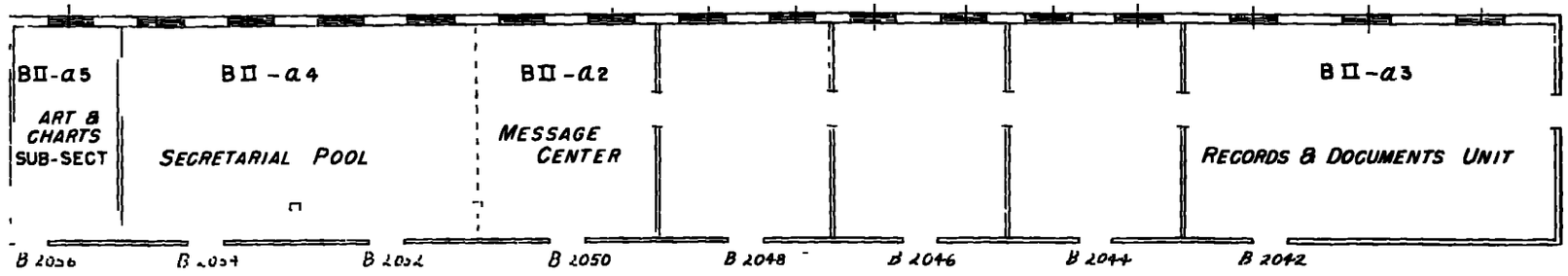
3 Incls
1. Organizational Chart - Services Section
2. Floor Plan - Services Section
3. WD AGO Form No. 671

SERVICES SECTION

SPSIB-IIA

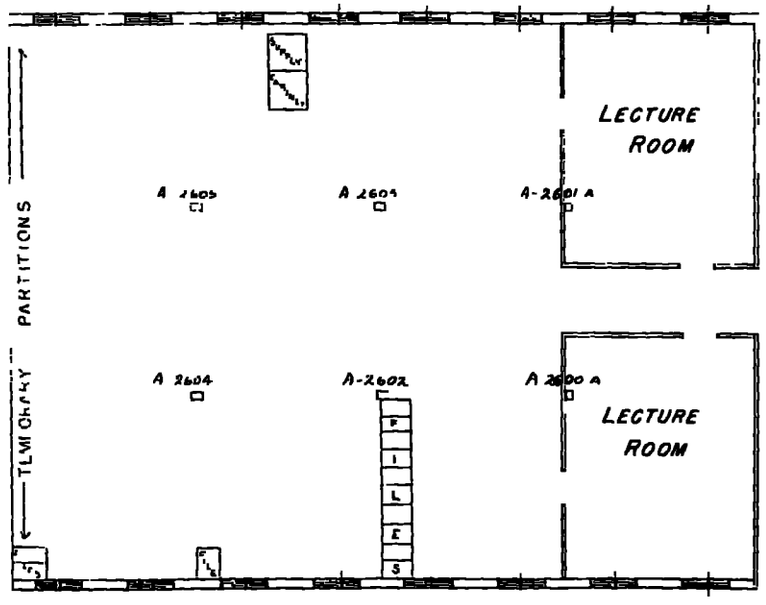


SERVICE SECTION



OPERATIONS "B"

FLOOR PLAN



SPSIB-II A

BII-a1

TRAINING SCHOOL SUB-SECTION

OPERATIONS "A"

RESEARCH AND LIAISON SECTION, SPSIB-2B
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

RAB
C

1. The mission of the Research and Liaison Section, SPSIB-2B, is to act as a consultant and advisor to all sections concerned with the cryptanalysis of Japanese Army cryptographic systems, and to maintain liaison with the Machine Branch, Traffic Analysis and Control Branch, sections concerned of Military Cryptanalytic Branch, and the Army and Navy.

2. This section is composed of seven subsections, as illustrated on the organizational chart attached as Inclosure 1. The functions of each subsection are included in a discussion of the individual subsections.

3. The Research and Liaison Section maintains liaison with the Traffic and Services Sections of Military Cryptanalytic Branch, and the Machine Branch, Language Branch, and the Army and Navy.

4. Personnel:

a. The following is a list of the number of personnel employed in the Research and Liaison Section:

Male Officers	- 7
WAC Officers	- 1
Enlisted Men	- 2
Enlisted WAC	- 7
Military Personnel	- 17
Civilians	- 50
Total Personnel	- 67

b. In addition to the foregoing personnel, who are actually part of the Research and Liaison Section, there are several subsections of this section in which personnel from the Language Branch, Traffic Section and Japanese Water Transport Section of Military Cryptanalytic Branch, are employed on detached assignment.

c. The personnel in this section work on all three shifts, although the majority of the employees are on the day shift.

d. The personnel requirements of the Research and Liaison Section are adequate except that an additional assistant is needed for research, compilation and editing of reports in the Special Projects Subsection, SPSIB-2B2.

5. Space.

a. The Research and Liaison Section is located in the second and fifth wings and the headhouse on the second floor, Operations "B". A floor plan of this section is attached herewith as Inclosure 2.

b. In a survey of the subsections the following problems of space have been encountered.

(1) In the Cryptographic Intelligence Subsection, SPSIB-2B3, an additional bay is needed.

(2) In the Cross Code Cribbing Subsection, SPSIB-2B6, a half a bay is needed in order that this subsection may perform the mission assigned.

c. The foregoing space problems are now being investigated, and additional space will be assigned if any is found to be available.

6. There is no difficulty in regard to the lighting facilities in any of the subsections.

7. The following are the subsections which compose the Research and Liaison Section:

a. Research Subsection, SPSIB-2B1

(1) The mission of this subsection is the basic cryptanalytic research on problems involved in Japanese cryptographic systems.

(2) The files maintained in this subsection are those containing the worksheets of the problems involved.

(3) Reports.

(a) This subsection contributes material to the regular daily, weekly, and semi-monthly reports of Military Cryptanalytic Branch.

(b) It has been suggested that routine contributions to the foregoing reports be eliminated except for the report of production units.

b. Special Projects Subsection, SPSIB-2B2.

(1) The mission of the Special Projects Subsection is to conduct studies on special projects connected with Japanese Army systems, such as: studies on lower

echelon material, maintenance of a system description file, studies of systems not directly connected with any of the production units, compilation of the Branch History, editing of branch reports, etc.

(2) The following files are maintained in this subsection:

(a) Traffic of systems being studied.

(b) System description file.

(c) Code-identification index

(3) Reports.

(a) This subsection contributes regular material to the Military Cryptanalytic Branch Reports.

(4) Reference Material.

(a) Captured materials, cryptanalytically reconstructed material, and reports are used as reference material.

e. Cryptographic Intelligence Subsection, SPSIB-283.

(1) The mission of this subsection is to examine, interpret, evaluate, and identify decodes, captured documents, and raw traffic containing any information regarding Japanese cryptographic and communication systems; translate, prepare and distribute such information for exploitation.

(2) The following files are maintained in the Cryptographic Intelligence Subsection:

(a) Decodes.

(b) Translations (all RK Bulletins, weekly report, translations of code instruction messages filed by topic, card files on pertinent information extracted from messages).

(3) Reports.

(a) This subsection submits regular contributions to the branch reports.

(4) Reference Material.

(a) Reference material consists of regularly distributed reports and incoming telegrams.

d. IBM Liaison Subsection, SPSIB-2B4.

(1) The mission of this subsection is to provide liaison between Military Cryptanalytic Branch and Machine Branch, and to aid in the development of new machine techniques.

(2) The following files are maintained in the IBM Liaison Subsection:

(a) Index of IBM runs (sample runs).

(b) File of requisitions and cross-index.

(c) File of receipt cards.

(3) Daily production reports are maintained in this subsection.

e. Traffic Analysis and Control Branch Liaison Subsection, SPSIB-2B5.

(1) The mission of this subsection is to provide liaison between Traffic Analysis and Control Branch and all sections of Military Cryptanalytic Branch.

(2) The following files by circuit are maintained by this Liaison Subsection:

(a) Cryptographic intelligence messages.

(b) Isologs.

(c) Water stereotypes.

(d) Ground stereotypes.

(e) Air stereotypes.

(3) A semi-monthly report of activities and findings is submitted to the Traffic Analysis and Control Branch and the Military Cryptanalytic Branch.

f. Cross Code Cribbing Subsection, SPSIB-2B6.

(1) The mission of this subsection is to locate and exploit cross-code book isologs and stereotypes.

(2) The following files are maintained in the Cross Code Cribbing Subsection:

(a) Translated bulletins (Japanese Army, Navy, diplomatic) by file date and time.

(b) Translated bulletins (see above) by subject matter.

(c) Reference file of cryptographic materials.

(d) Weekly reports.

(e) All known stereotypes (filed by HATSU).

(f) Card file of ground system TSUDENSAKIS filed by HATSU-CHIYA.

(g) Card file of merged originator series by HATSU.

(h) Card file of relay originators and secondary originators by HATSU.

(3) The reports of this subsection consist of contributions to daily, weekly and semi-monthly reports of the section, and special studies useful to production units.

h. Army-Navy Liaison Subsection, SPSIB-2B7.

(1) The mission of this subsection is to maintain liaison between Army and Navy units concerned with analysis of Japanese cryptographic communication systems.

(2) The following files are maintained in the Army-Navy Liaison Subsection:

(a) Translations of Japanese Navy messages filed by date and time - going back four months from current date.

(b) Selected translations of Japanese Navy messages filed by subject matter (messages dating four months earlier than current date).

(c) Desk file of very recent Navy translations which are expected to reappear in Army messages.

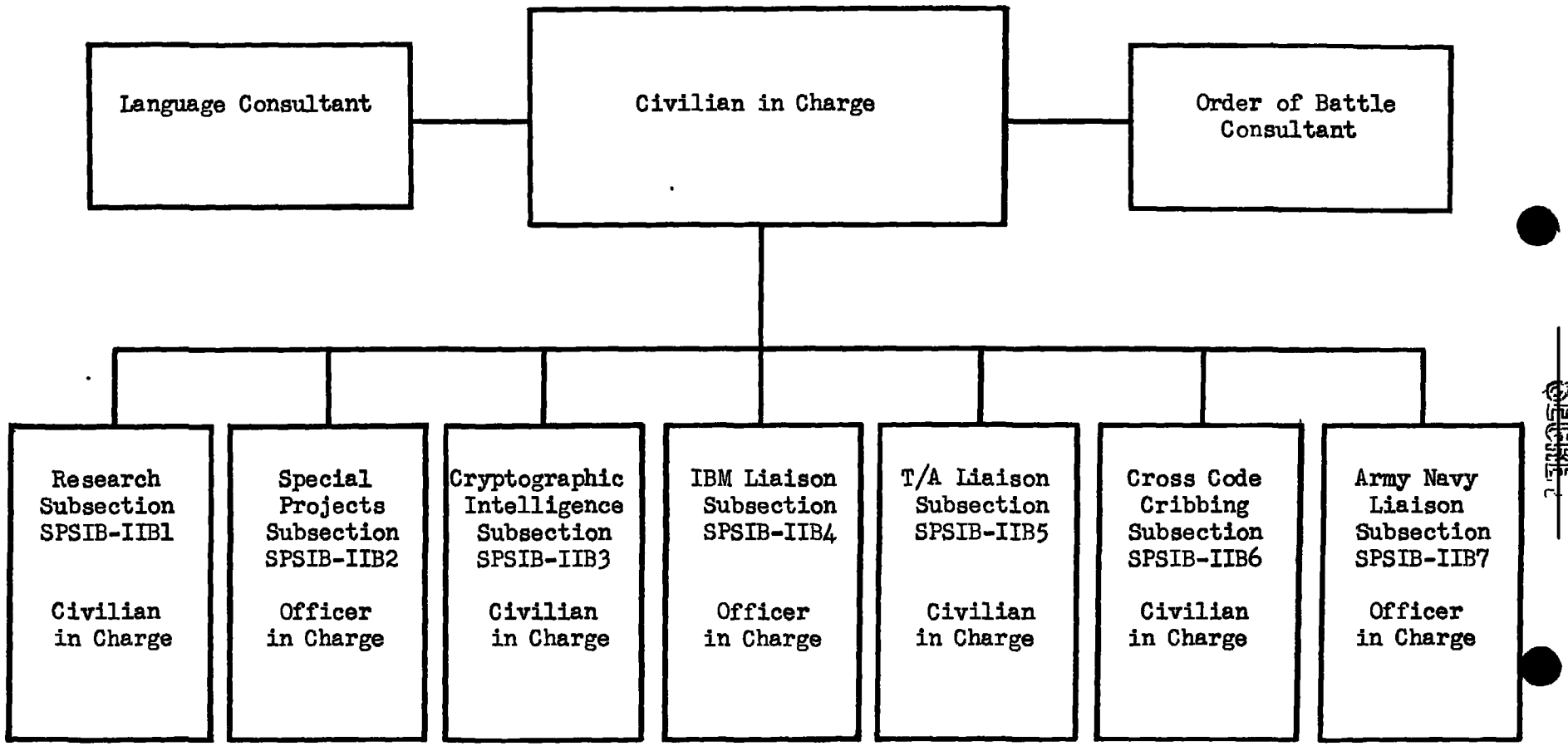
(3) The reports submitted by this subsection consist of material reported in the regular weekly report, and a detailed report of activities made at irregular intervals to Chief, Military Cryptanalytic Branch.

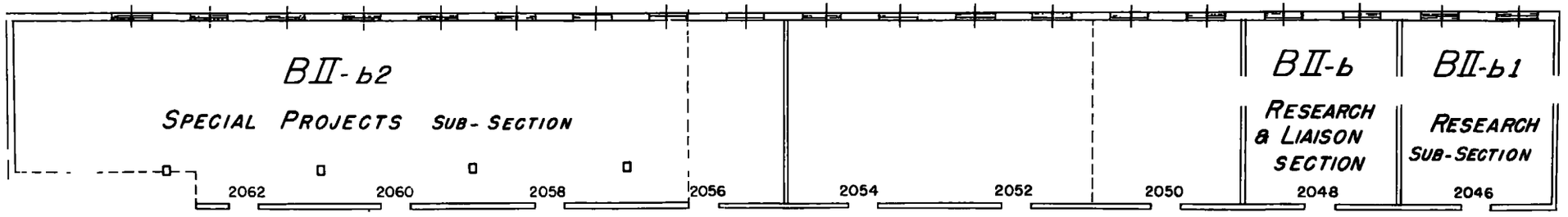
2 Incls
1. Org chart - SPSIB-2B
2. Floor plan - SPSIB-2B

SECRET

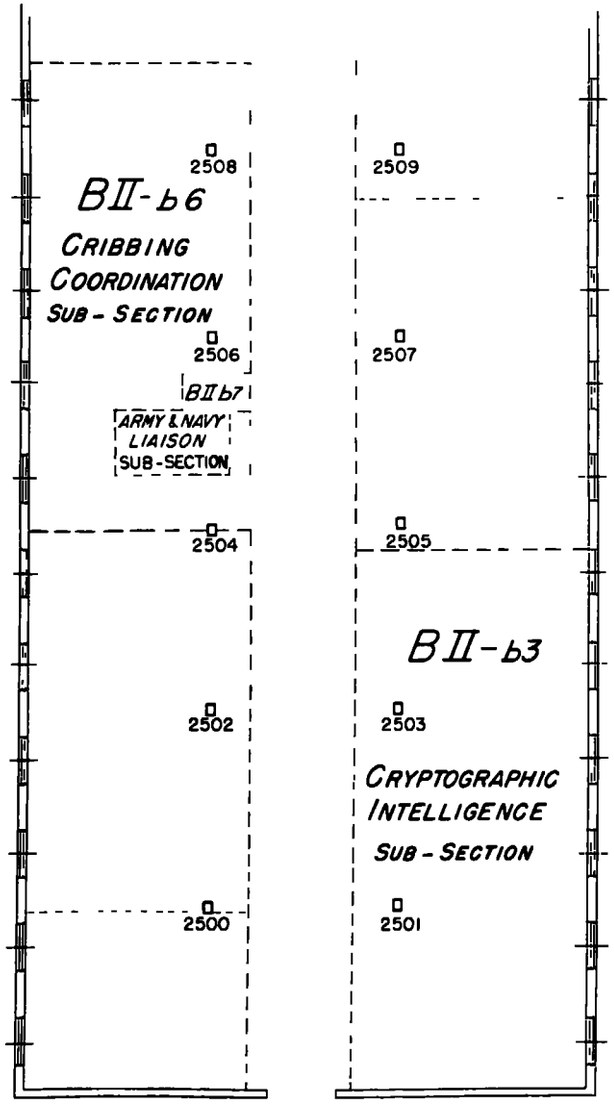
RESEARCH AND LIAISON SECTION

SPSIB-IIB

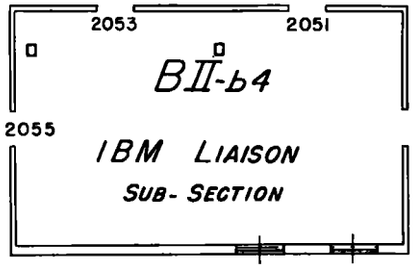




2ND FLOOR – HEAD HOUSES



2ND FLOOR
5 TH WING
FRONT

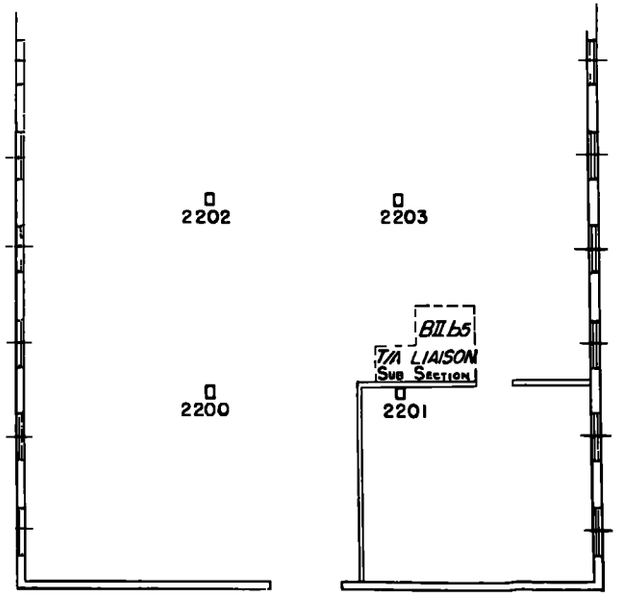


2ND FLOOR
ADJOINING
5TH WING

RESEARCH AND LIAISON SECTION

OPERATIONS "B"

SPSIB-IIB



2ND FLOOR
2 ND WING
FRONT

SPSIB-1A

Analysis of Traffic Section, SPSIB-2C
Military Cryptanalytic Branch, SPSIB-2

TAB D

1. The mission of the Traffic Section, SPSIB-2C is the receiving, processing and distribution of Japanese Army traffic for cryptanalytic use; the cryptanalysis of the discriminant problem; the fulfilling of special requests for messages; the locating of intra-code book isologs; and the maintenance of a file of the second copy of traffic by HATSU, file date and time.

2. As illustrated on the attached organizational chart, Inclosure 1, Traffic Section is divided into five subsections. In order to completely understand the flow of Japanese Army traffic, a detailed discussion of the Traffic Processing Subsection, SPSIB-2C1, is attached as Inclosure 2.

3. Traffic Section maintains liaison with all units in Signal Security Agency involved in the Japanese Army Problem.

4. The volume of work in this section depends upon the volume of traffic, decodes, and frequency of change of the discriminant key book.

5. Personnel:

a. The following is the number of personnel employed in Traffic Section:

Male Officers	9
WAC Officers	2
Enlisted Men	1
Enlisted WAC	26
Total Military	38
Civilians	322
Total Personnel	360

b. The above personnel work on the day, swing and graveyard shifts.

c. The number of personnel presently employed in the Traffic Section is not adequate to fulfill the mission assigned to this section. An addition of 75 people is needed as a minimum requirement. This number has already been requisitioned from the Personnel Branch.

d. There is some dissatisfaction among the employees of the Traffic Processing Subsection, SPSIB-2C1, because the grades allocated to this section are not as high as those given to other subsections of the Traffic Section. Promotions are very slow, and therefore, the employees believe that there is little opportunity for advancement. It has also been noted that employees have been given a glamorized idea of the work, but upon doing their work discover that much of it is routine and monotonous. Actually, the morale of the subsection is exceedingly good despite this dissatisfaction.

6. Space.

a. The Traffic Section is located in Wing 5, 2nd floor of Operations "A", and Wing 5, 2nd floor of Operations "B". A floor plan of the Traffic Section is attached as Inclosure 3.

b. All available space assigned to the Traffic Section is utilized, and if the number of personnel were increased, additional space would be necessary to aid the working conditions. In particular, the Receiving and Identification Unit, located in Operations "A" Building definitely needs more space - approximately 12 bays are necessary, or half of the rear wing.

c. This space problem is being investigated, and when additional space is available, more will be assigned to this section.

7. It would improve working conditions if additional fluorescent desk lamps were acquired, especially for the use of personnel on the night shifts.

8. Files.

a. The following files are maintained in the Traffic Section:

(1) Date and time file on JEP and JEQ priority traffic.

(2) Discriminant control file.

(3) Unidentified discriminant file.

(4) Small system file.

(5) Second copy file by code book HATSU, file date and time.

(6) Card file on requests received, sorted by file date.

(7) Dope sheet file - traffic to fulfill requests, sorted by file date.

b. The files are maintained as long as the material contained in them is in use. Because of the space requirements, continual checking is necessary in order to eliminate files when and if possible.

9. The following reports are prepared by the Traffic Section - the distribution of each is made by the Branch Record Office.

a. Daily volume report.

b. Weekly progress report.

c. Monthly review.

10. This section utilizes the following reference material:

a. Traffic Analysis and Control Branch Intercept Runs - used extensively by the Message Service Subsection and the Isolog Subsection of Traffic Section.

b. The Discriminant Solution Subsection uses prediction runs made by Traffic Analysis and Control Branch in the recovery of discriminant keys. They are used during the period of key recovery or until information is obsolete and new runs are made.

c. Miscellaneous reports, lists, and bulletins are used for informational and training purposes and are retained as long as they are useful.

11. It has been noted, from the study of this section, that much time is wasted in the filing of the Japanese Army traffic because of the fact that the traffic is not of uniform size. It has been suggested that the traffic be recorded on a card, which will allow machine sorting. This recommendation has been referred to the Machine Branch for comment.

12. In the investigation of the Late Traffic Subunit, three matters came up that required further investigation:

a. From certain intercept stations, particularly India, only one copy of a message is now received. From other stations one copy is received originally. A second copy sometimes arrives later, but it is not marked as a duplicate. In the case of having available only one copy, this results in this subunit having no copy for its HATSU file. In the case of a duplicate copy, although not marked duplicate, the result is much additional work in identifying the duplicate. The Chief, Traffic Analysis and Control Branch, advised that an investigation would be made of this problem, and subsequently reported that this was accomplished. The result of this investigation was that this situation had been improved.

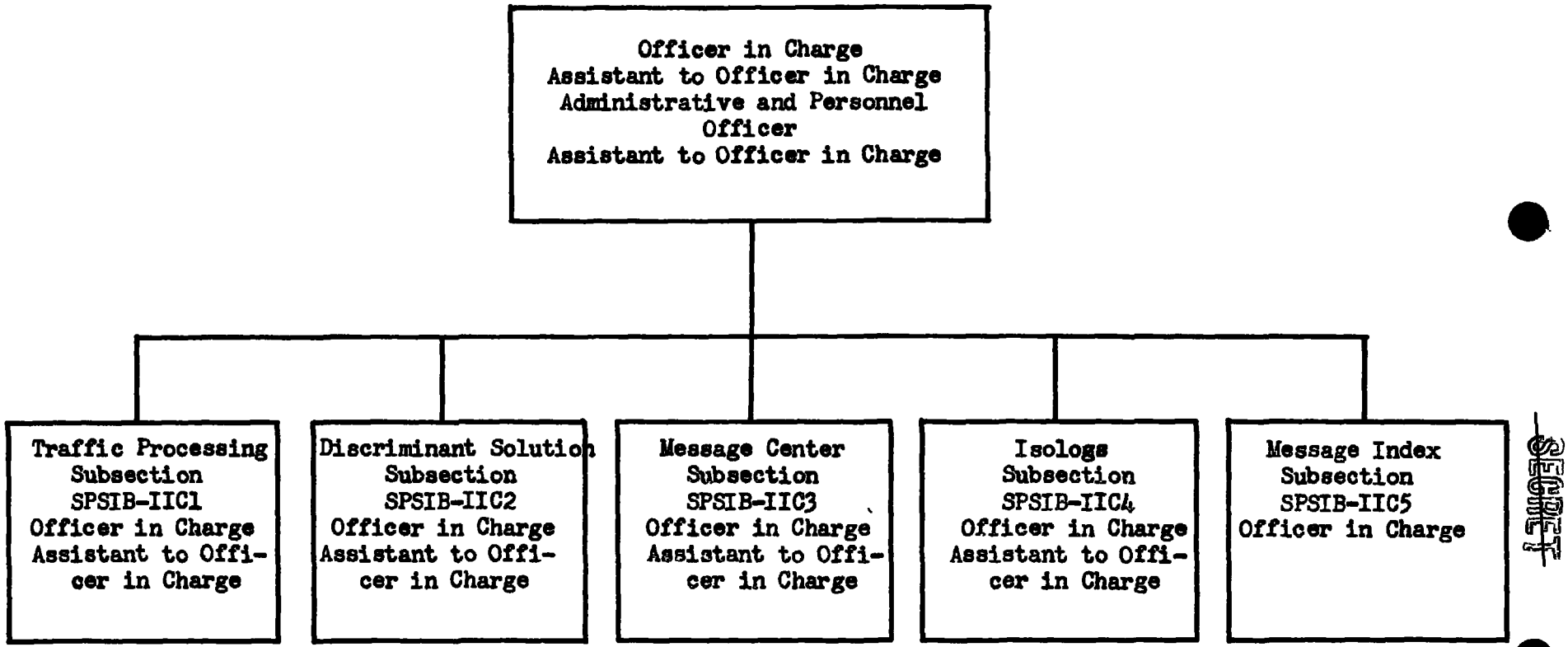
b. The question arose as to the lack of standardization by intercept stations in the rating of messages as to readability. It was decided that nothing could be done to effect more uniform ratings by these stations.

c. The problem arose as to the necessity for D.D. editing all of the traffic instead of only the current teletype traffic which now comes from the Traffic Analysis and Control Branch, amounting to approximately 25% of the total traffic. It was decided that all traffic should be D.D. edited by the Traffic Analysis and Control Branch. Requisition has been made for the number of personnel necessary to accomplish this mission. It further developed that the Indian traffic, which now arrives at Arlington Hall not edited for D.D. could be edited in India. This entire matter was discussed with the Director of the Government Code and Cipher School, and with the Special Security Officer, G-2, for the India-Burma Theater. As a result of the conference, the air traffic from India is now being sent to London where it is punched and D.D. edited, and it is sent to the Signal Security Agency by mail. The plan is that additional traffic from India will be handled the same way.

3 Incls
1. Organizational Chart - Traffic Section
2. Report - "Flow of Japanese Army Traffic"
3. Floor Plan - "Traffic Section"

TRAFFIC SECTION

SPSIB-IIC



FLOW OF JAPANESE ARMY TRAFFIC

1. An understanding of the operation of the Traffic Processing Subsection, SPSIB-2C1, requires a discussion of the flow of Japanese Army traffic from its receipt in the Traffic Section of Traffic Analysis and Control Branch, to its delivery to the various sections of Military Cryptanalytic Branch, for the actual decryptographing and decoding of the message text, preliminary to translation and subsequent publication.

2. As a preliminary for those not acquainted with the technique of Japanese Army traffic, it is advisable to define certain terms:

a. HATSU: The place, organization, or radio station from which message is originally sent, usually a geographical place.

b. CHIYA: Same as above but refers to destination. Example: Thus in a message from Tokyo to Singapore, Tokyo is the HATSU, Singapore is the CHIYA.

c. Originator: The authority or his delegate who orders a message sent.

d. ATE: The external (encoded and enciphered) address indicating the individual or unit to receive the message. Example: If the message was sent by the Chief of Staff at Tokyo to the Commanding General at Singapore, the Chief of Staff would be the Originator and the Commanding General would be addressed in the ATE.

e. D.D.: The Japanese customarily send the letters HO HO (DD in English Morse) following the ATE and preceding the HATSU and CHIYA, to indicate a break. Hence, these two letters are used to refer to the code for HATSU and CHIYA. (Place from and place to).

f. Discriminant: The group or groups (usually enciphered) designating the Japanese Army cryptographic system employed in enciphering the message. Naturally, this is all important since without the system being identified, the message cannot be decrypted. These systems are referred to by trigraphs, such as JEQ, JEM, etc.

g. Discriminant Control: A four-digit number derived from a combination of two textual cipher groups, through a cipher square, indicating the proper key to be used in deciphering the discriminant.

h. Many other terms are used, such as TEMA, HONA, TSUDENSAKI, etc., which if encountered, can be determined by reference to training literature on this subject.

3. General Philosophy of Procedure. The messages are received either by teletype or mail, with varying time lags between intercept of the enemy message by intercept stations and receipt at Signal Security Agency. The time lag may be a few hours or a matter of weeks (mail traffic, particularly from India).

4. The objectives sought in handling the traffic are:

a. To provide intelligence of the enemy from the message text.

b. To determine from the traffic as quickly as possible any probable enemy intentions based on flow, volume and channels of traffic, without the necessity of delay to actually decode and read the text as in a above.

c. To provide cryptographic aids for solution.

5. During this entire process, selection of traffic is essential, not only as to messages requiring expeditious handling for their probable intelligence content, but also for messages which can assist in cryptographic operations.

6. The Machine Branch is capable of processing with known materials a greater volume of traffic than can be done in the same period by hand, but machine operation requires a longer time for individual or a small number of messages than can be accomplished by hand.

7. Assuming first a flow of normal teletype traffic where four copies are available and the discriminant keys are recovered, in Traffic Section of Traffic Analysis and Control Branch, all four copies are D.D. and circuit edited. Then they are forwarded to the Receiving and Identification Unit of Traffic Subsection, SPSIB-2C1, which is located in Operations "A".

8. In the Receiving and Identification Unit above referred to, again treating only current teletype traffic, the four copies are processed for discriminant decipherment and trigraph is assigned. These copies are then returned to a table in the immediate proximity, operated by Traffic Analysis and Control Branch, where they are separated and distributed.

9. The progress of the four copies is then as follows:

a. The first copy is sent to the Current Teletype Traffic Subunit of Traffic Subsection, SPSIB-2C1 for classification and logging. The function of this subunit is to identify messages which are textual duplicates, and to make the best selection for machine room processing. It then goes to the Current Message Processing Unit of Machine Branch, for complete message punching. The purpose of this unit is to prepare, in card form, copies of all original Japanese Army messages intercepted. This preparation includes the punching of the cards, manually or mechanically, the checking of the information punches for accuracy, and the production of copies of certain cards for operations to be studied later. In conjunction with this work, a printed copy of all messages processed

is made and kept as a reference in subsequent processing. As an additional function of this unit, copies of certain messages are prepared for transmission to the British. After leaving the Current Message Processing Unit of Machine Branch, the first copy of the message is delivered to the Distribution Unit of Traffic Processing Subsection, SPSIB-2C1, which is located in Operations "B". At this point, traffic is distributed to the operational units of Military Cryptanalytic Branch.

b. The second copy goes to the Traffic Analysis Key Punch Unit of Machine Branch to prepare runs for traffic analysis and ATE study. The purpose of this unit is to provide a bank of information on all traffic in order that the cards may be prepared for cryptanalytic and traffic analysis studies. Two basic cards are punched manually, containing all the pertinent heading information and certain textual groups. Trailer cards are prepared for long ATE's and D.D.'s. Five types of cards are prepared automatically, in other units, by selecting the information desired for each type from the basic cards and punching a separate file. After leaving this unit, the second copy is delivered to the Isolog Subsection, SPSIB-2C4, which is a subsection engaged in maintaining a HATSU file.

c. The third copy goes to the units of Area Specialists Subsection, SPSIB-4C2. These units process it for their own studies, and upon request, provide certain messages to the Cribbing Subsections, of Military Cryptanalytic Branch, SPSIB.

d. The fourth copy goes to the Traffic Priorities Unit of Area Specialists Subsection, SPSIB-4C2.

> Note: It will be noted that Copy No. 3 is completely consumed in Area Specialists Subsection. Copy No. 4 is broken down by ground, water and air classifications and forwarded to the Cribbing Units concerned of Military Cryptanalytic Branch. This procedure is utilized because the third and fourth copies which go to Area Specialists Subsection are not subject to the delay of the first and second copies.

10. The foregoing was based on the assumption that all discriminants could be identified, and that there were four copies of the message. Now let us assume that we have a new discriminant period and that there are still four copies of the teletype message.

a. The processing procedure is basically the same as for the situation in which all discriminant keys are known. The differences involved are as follows:

(1) As soon as the traffic arrives at Basic Analysis Subsection in Traffic Analysis and Control Branch, the discriminant control is derived and written on the messages.

(2) The fourth copy is separated from the other three and sent to Machine Branch immediately for a brief punching to provide information for the discriminant key recovery. This punching includes the first two Gats of the message, discriminant control, and date. This apparent duplication of machine processing is justified by the time in which it speeds the discriminant key recovery, which is a prerequisite essential to all solution.

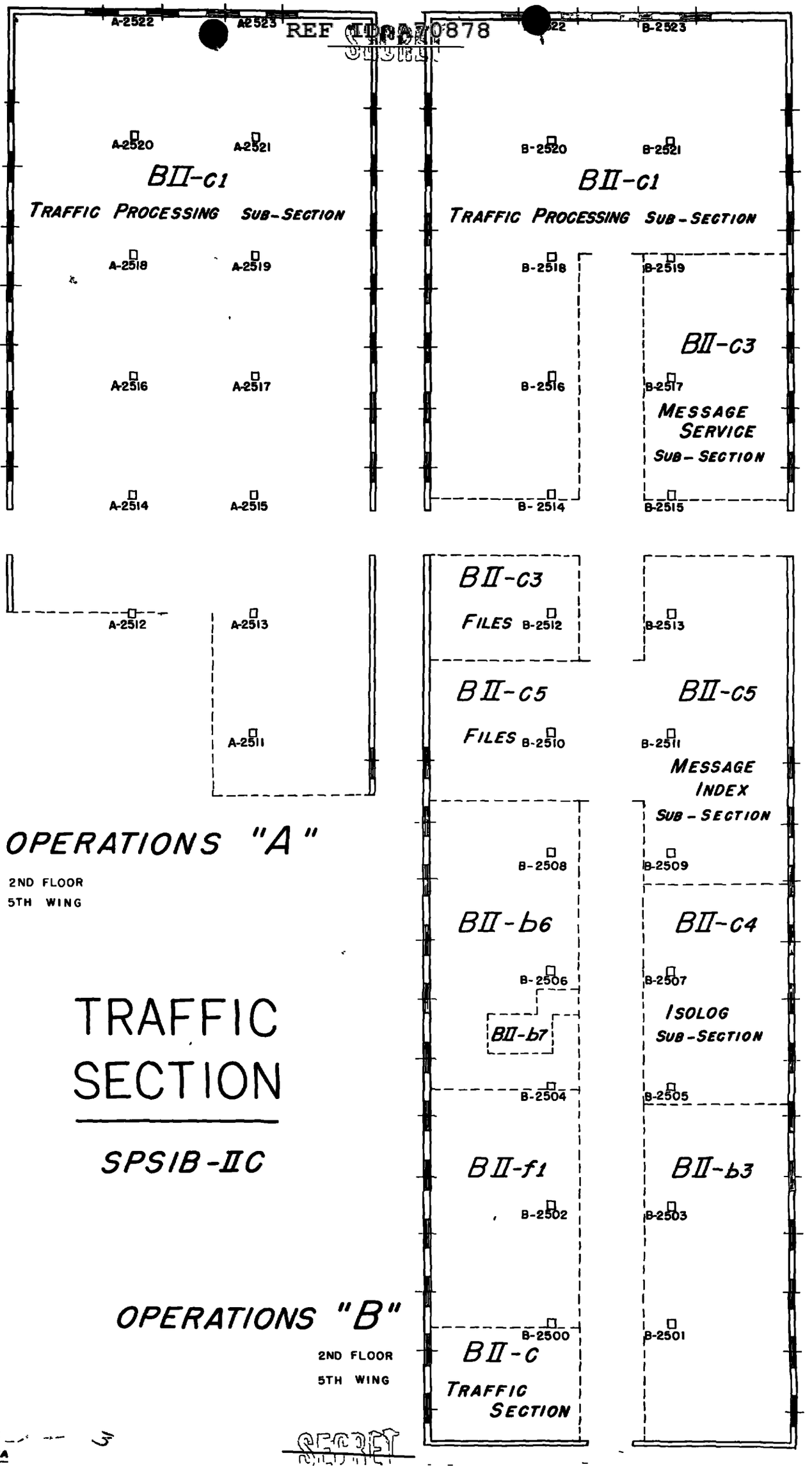
b. The other three copies proceed through the same channels as described in paragraph 9, except that it is not possible to identify the discriminant. As a result, when the first copy arrives in the Distribution Unit of Traffic Processing Subsection, SPSIB-2C1, in Operations "B", it must be filed, to await discriminant solution, before it can be distributed.

11. It is expedient to separate the late teletype traffic from the current teletype traffic and process it with the mail traffic for most efficient handling. Late teletype traffic is so designated from time to time, as operational conditions warrant, to prevent the current teletype channels from becoming clogged. Two copies of this late teletype traffic are destroyed upon receipt in Basic Analysis Subsection of Traffic Analysis and Control Branch before processing has been done, because the ultimate receivers of the third and fourth copies of the traffic are interested in studying current traffic only. Copies one and two of the traffic are completely processed for Military Cryptanalytic Branch procedures.

12. Mail traffic is delivered directly to the Receiving and Identification Unit of Traffic Processing Subsection, SPSIB-2C1 without the benefit of D.D. or circuit editing by Basic Analysis Subsection of Traffic Analysis and Control Branch. The reason for this is that sufficient personnel are not available to process this traffic. The discriminant identification, trigraph assignment, and logging processes of late teletype and mail traffic are primarily done in Machine Branch, as opposed to the current teletype traffic, which is expedited by hand procedures. Machine Branch procedures are more efficient in the long run, but cannot be utilized on a day-to-day basis as efficiently as hand procedures, and therefore, these processes are not applied to current teletype traffic.

13. Then the traffic is prepared for pilot card punching in Machine Branch. This procedure applies only to mail and late teletype traffic. The pilot card contains sufficient information to enable Machine Branch to decipher the discriminant and compare the message against the cards which Machine Branch has on file to determine whether or not the message is a duplicate. Machine Branch, by use of the transfer posting machines, prints information on the traffic, including the discriminant, trigraph, and whether or not the messages are duplicates. The traffic is then returned from Machine Branch to the Late Traffic Subunit of the Receiving

and Identification Unit, Traffic Subsection, SPSIB-2C1, in order that the operations be reviewed and checked for accuracy. At this point it is determined which messages are to go to Machine Branch for further processing and complete message punching. The traffic which is chosen for this process is sent down to Machine Branch again and the remaining traffic is forwarded to the Distribution Unit of Traffic Subsection, SPSIB-2C1, which is located in Operations "B", bypassing Machine Branch.



OPERATIONS "A"

2ND FLOOR
5TH WING

TRAFFIC SECTION

SPSIB-IIC

OPERATIONS "B"

2ND FLOOR
5TH WING

SPSIS-1A

ADDRESS SECTION, SPSIB-2D
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

1. The mission of the Address Section, SPSIB-2, is to recover the enciphered addresses sent with Japanese Army messages in order to furnish Order of Battle intelligence regarding Japanese Army agencies and the disposition of Field Units, and to supply information regarding the destination of translatable messages.

T/B
E

2. The Address Section is divided into three subsections, as illustrated in the organisational chart, attached as Inclosure 1.

3. This section works in close liaison with MIS, Traffic Analysis and Control Branch, all Reading Units of Military Cryptanalytic Branch, the Research Subsections of Military Cryptanalytic Branch, the Japanese Army Translation Section of the Language Branch, and the Machine Branch.

4. The Address Section handles all of the Japanese Army traffic containing addresses.

5. Personnel.

a. The following is a list of the personnel presently employed in the Address Section:

Male Officers	- 3
WAC Officers	- 1
Enlisted Men	- 0
Enlisted WAC	- 3
Military Personnel	- 7
Civilians	-91
Total Personnel	-98

b. The above personnel work on three shifts. However, this number is stated as not adequate to perform the mission assigned. Additional personnel have been requisitioned, to bring the total number up to 110 people.

6. The Address Section is located in Wing 3, second floor, Operations "B". A floor plan of this section is attached as Inclosure 2. Although this location is convenient for work with other sections, the amount of space assigned to this section is not conducive to the best working conditions.

7. The lighting conditions on the swing and graveyard shifts are not adequate, and more individual fluorescent lamps are needed. The im-

portance of this condition is emphasized by the fact that poor lighting is a principal reason given by employees who refuse to work night shifts. Additional fluorescent desk lamps have been requisitioned from the Supply Branch.

8. Files:

a. The following files are maintained in the Address Section:

(1) Basic code card file.

(2) Duplicate additive file.

(3) File of all HONA addresses, after 1 March, by HATSU and Control.

(4) Translation card file, "live" and "dead" (in index), by TIYA, date, and basic code.

(5) Air units by unit number.

(6) Basic code file by groups (encode and decode).

9. Reports:

a. The following are the reports prepared by this section:

(1) Daily production report.

(2) Daily time report.

(3) Daily additive report.

(4) Weekly report - recoveries and technical discussions.

(5) Weekly strength report.

(6) Weekly work schedule for officers

(7) "This Week in Review"

(8) Bi-weekly synopsis.

(9) Monthly strength report.

(10) Monthly production report.

(11) Monthly work schedule for enlisted personnel.

b. It has been noted that the Weekly Report, "This Week in Review" and the Bi-weekly Synopsis contain essentially the same information.

10. The following are the recommendations made as a result of the Control Office survey, and the action taken on these recommendations.

a. That a complete hard copy file of all traffic be maintained in a manner to be easily accessible. This hard copy file was installed and has been maintained since 1 May 1945.

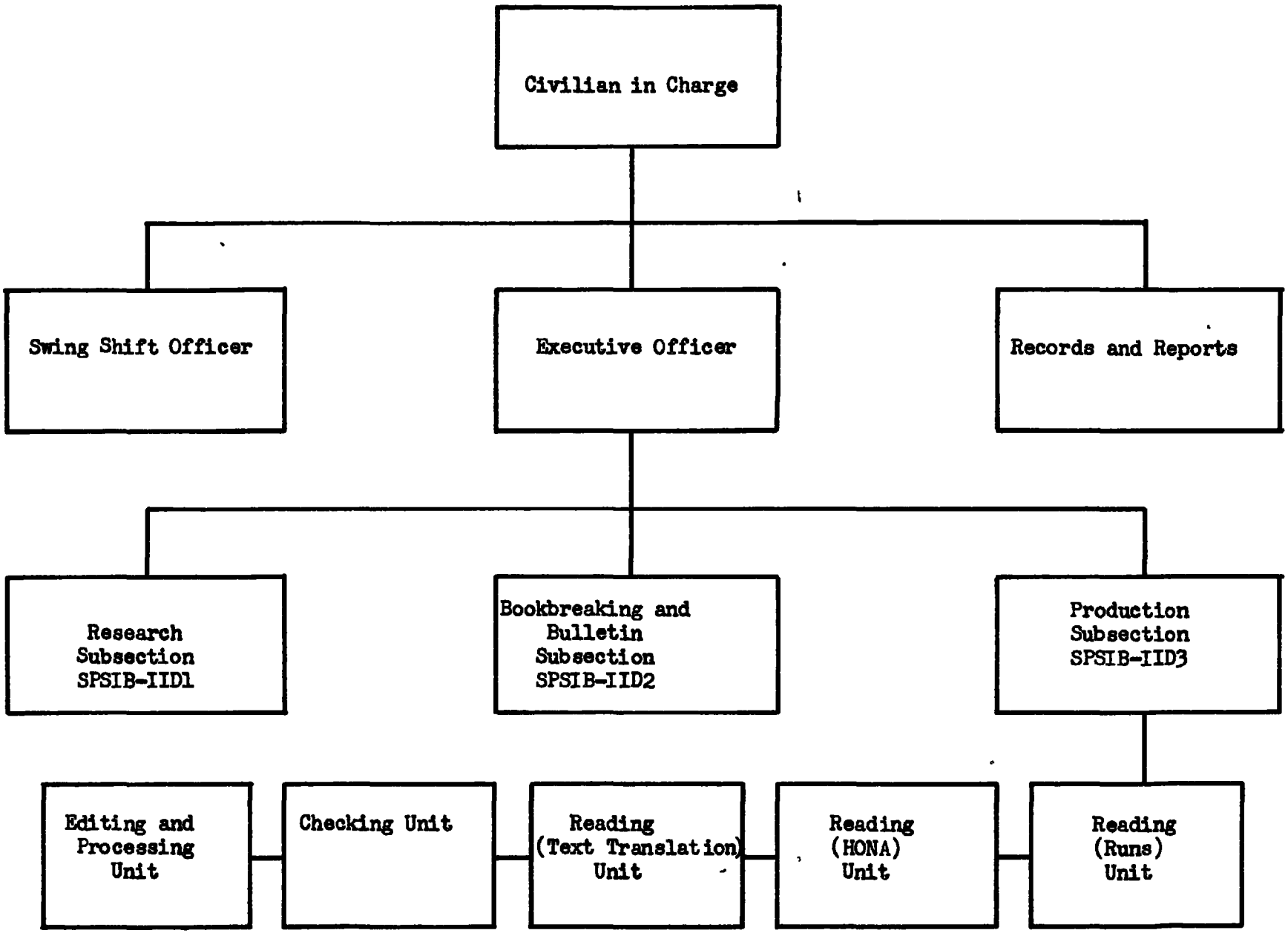
b. That the Japanese Air Section, now located in Wing 4, first floor, Operations "B", be placed in the same wing as the Address Section because of the close relationship of work between these two sections. The move as suggested here depends upon the outcome of the study which the Control Office is making on space allocation and moves.

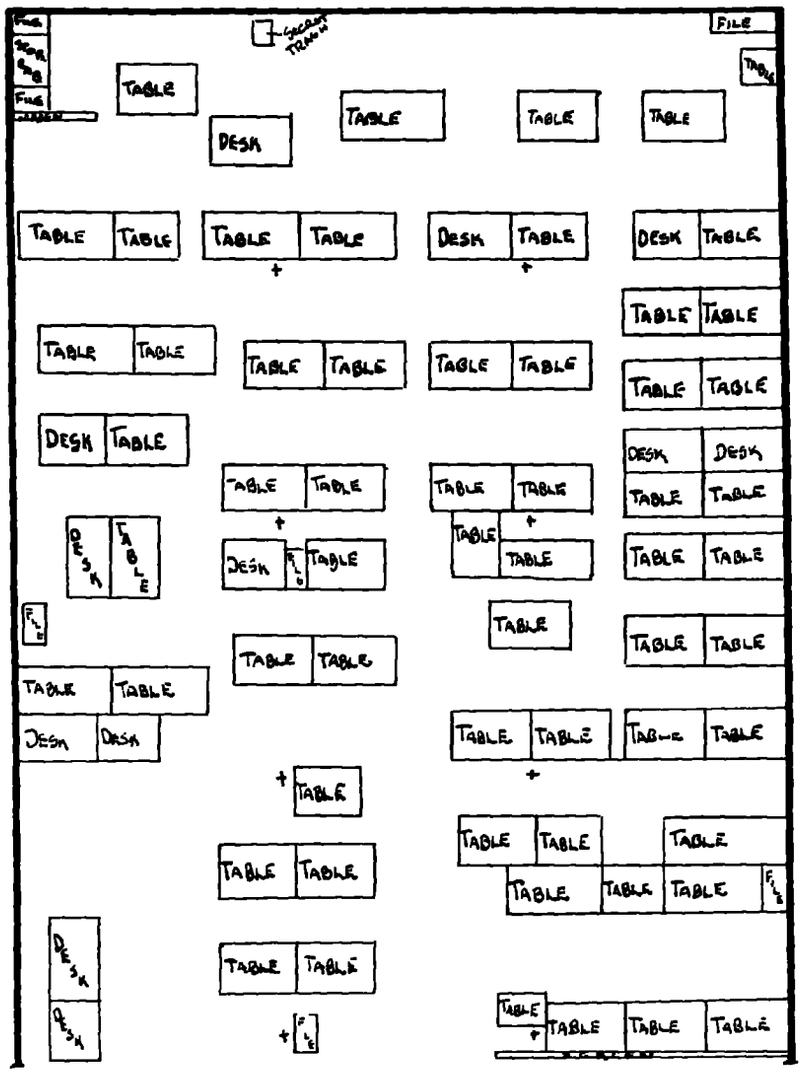
c. That the Bi-Weekly Report of the Address Section be limited to only administrative matters, excluding technical data which already appears in weekly reports. This matter has been accomplished.

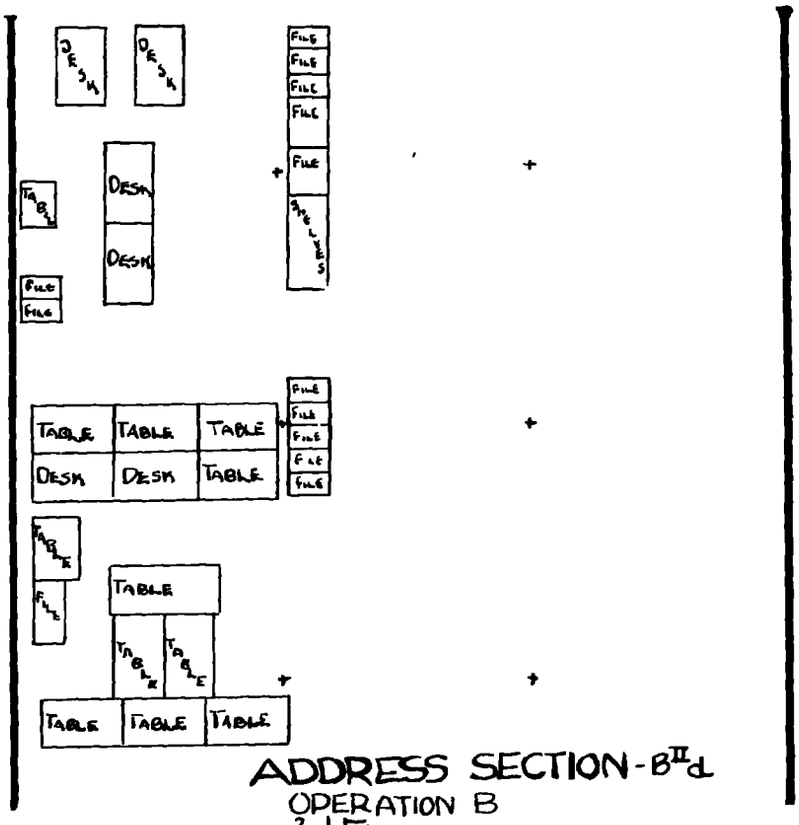
2 Incls
1. Org Chart, SPSIB-2D
2. Floor plan, SPSIB-2D

ADDRESS SECTION

SPSIB-IID







ADDRESS SECTION - B II d
OPERATION B
2nd Floor
WING 3

SECRET

JAPANESE WATER TRANSPORT SECTION, SPSIB-2
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

1. The mission of the Japanese Water Transport Section, SPSIB-2, is the decryptographing of Japanese Water Transport messages through hand and machine decoding processes; controlling keying, filing of Water Transport messages; correction of non-keying Water Transport messages; square and key recovery; cross cribbing.

TAB F

2. This section consists of the subsections as shown by the attached organizational chart (Inclosure 1). Their specific functions are detailed under the discussion of the individual subsections.

3. The physical location of the Japanese Water Transport Section is Wing 4, second floor, Operations "B". A floor plan of this section is attached as Inclosure 2. The space allotted to this section is adequate.

4. This section works in close liaison with the Machine Branch, Language Branch, Traffic Analysis and Control Branch, General Cryptanalytic Branch, Address Section of Military Cryptanalytic Branch, and other units.

5. The volume of work changes with the Japanese military tactical situation and with the status of solution.

6. The personnel of the Japanese Water Transport Section is as follows:

Male Officers	- 8
WAC Officers	- 1
Enlisted Men	- 4
Enlisted WAC	- 9
Military Personnel	- 22
Civilians	-244
Total Personnel	-266

7. The lighting is not satisfactory. The work of the section requires adequate lighting, and although fluorescent desk lamps have been requisitioned, they have not been delivered. The Control Office has investigated this situation, and additional desk lamps will be supplied when available.

8. With regard to personnel, difficulties have been encountered in securing adequate ratings for personnel, particularly in the Research Unit of the Square and Key Recovery Subsection, SPSIB-2E4.

9. The following are the subsections that compose the Japanese Water Transport Section:

a. Decryptographing Subsection, SPSIB-2K1.

(1) The work of this subsection consists of the following:

(a) The receipt, counting, keying, depaginating, filing, and general processing of raw, incoming traffic so that it can be available for use by the entire section.

(b) Placement and decoding of messages with and without known coordinates, with complete or incomplete text keys, complete or incomplete indicator keys.

(c) Mass production machine decoding of messages with known text keys by way of the IBM process. This involves the selection, preparation and ordering of machine decodes as well as the correction, editing and forwarding of the completed machine decodes.

(d) Correction of garbled and otherwise imperfect messages and the return of them to the regular files.

(2) Files.

(a) The following files are maintained by the Decryptographing Subsection:

1. Files of messages by Control, book and page.

2. Correction files - contain garbled messages and correction aids.

3. IBM Files - contain messages that have been selected for Machine Decoding.

4. Message duplicate files - contain mail traffic.

(b) Material is kept during a period of currency and for six to eight months thereafter.

(c) All files are believed necessary.

(3) Reports.

(a) Daily production report containing the number of messages placed, the number of hand or machine decodes processed. This report is made to the Officer in Charge of the section, who incorporates it in his report to the Operations Office of the Military Cryptanalytic Branch.

(b) IBM report to the IBM Liaison Subsection, Military Cryptanalytic Branch, containing the daily number of IBM Machine Decodes requested and the number received.

(c) Daily traffic volume report broken down by system, mail or teletype, and then by period. This report is made to the Officer in Charge of the section, who forwards it periodically to the Operations Office of the Military Cryptanalytic Branch.

b. Text Key Recovery Subsection, SPSIB-2E2.

(1) The mission of this subsection is the recovery of textual additives for Water Transport systems.

(2) The number of messages depends on the extent to which a given additive period can be exploited. On an additive period (two or three months duration) approximately 10,000 messages are handled. The volume of JEH and allied systems is consistently decreasing.

(3) Liaison is effected with other units of Japanese Water Transport Section.

(4) There are no files maintained in the Text Key Recovery Subsection, since the Coordination Subsection maintains the technical files necessary.

(5) Reports.

(a) Daily reader report, consisting of messages placed and additive recovered.

(b) Daily originator report, consisting of internal message preambles and numbers read from overlap.

c. Coordination Subsection, SPSIB-2E3.

(1) The mission of the Coordination Subsection is to assign work in the Text Key Recovery Subsection; prepare and organize starting and reading materials; start

overlaps by matching cribs; expedite the reading of urgent and priority messages; keep key and code books up to date; handle all Order of Battle materials relating to reading (slide runs and artificial cipher lists).

(2) Liaison is maintained with the Cribbing Subsection, SPSIB-2E5, and other sections of the Japanese Water Transport Section, Machine Branch, and G-2.

(3) The volume of the work is variable.

(4) Files.

(a) The following files are maintained in this subsection:

1. Overlap files both complete and incomplete, arranged by shifts for the current period. Also complete and incomplete files for past periods.

2. Crib files on current material, squares, samples of cryptographic aids and materials.

(b) Files are maintained until they are no longer of value - then samples are filed for reference and the balance destroyed.

(5) Functions and records discontinued.

(a) TSHA Unit now part of Cribbing Subsection.

(b) Ordering and filing of Cipher Coincidence Index discontinued.

(c) Hand frequency card file discontinued when machine plain text indexes were available.

(d) Function of compilation, proofing and distribution of decode books and encode books discontinued, and now a photostatic copy of the decode book is used. Encode books are now provided by Language Branch.

(e) A special file of Traffic Analysis priority traffic in TSHA series was listed and processed daily until traffic became current - then this traffic was handled by the Decryptographing Subsection.

d. Research Subsection, SPSIB-2E4.

(1) The mission of the Research Subsection is the handling of all the cryptanalytic research problems pertaining to any Water Transport systems. This includes locating controls, determining indicator patterns, building squares in new systems and recovering indicator keys and squares in systems where the cryptographic process is known.

(2) Liaison is maintained within the Japanese Water Transport Section, Traffic Analysis and Control Branch, and on occasion, other sections, such as the Discriminant Section.

(3) The volume of work fluctuates with the difficulty of the Japanese cryptographic process and with the percentage of production completed in any given additive period.

(4) Card files by control (either three or five digits) are maintained to facilitate key recovery.

(5) Reports.

(a) Indicator key reports are distributed to Central Bureau Brisbane; conversion squares to all center. Machine Branch and Discriminat Section receive indicator keys, as do various subsections within the Water Transport Section.

(b) Discoveries of new cryptographic processes or changes in old processes are reported at once to Central Bureau Brisbane.

e. Cribbing Subsection, SPSIB-2E5.

(1) The mission of the Cribbing Subsection is to fully exploit stereotypes in Japanese Water Transport traffic by making adequate researches on all available data, utilising latest techniques in applying this data to raw traffic, thus supplying cribs for the starting of overlaps, supplying multiple keys, and as a means of message placement; to utilize the cryptanalytic techniques of the subsection in primarisation of squares, recovery of denials, and in code book recovery; to supply information to all units dependent upon stereotypes for efficient operation.

(2) The following units work in close liaison with the Cribbing Subsection:

(a) Text-Key Recovery Subsection.

(b) Research Subsection.

(c) Coordination Subsection.

(d) Machine Branch.

(e) Priorities Unit of Traffic Analysis and Control Branch.

(3) There are 600 pieces of traffic processed daily, and 200 decodes processed daily.

(4) The personnel on the night shifts find the lighting to be inadequate. Fluorescent desk lamps have been requisitioned, but none have been received.

(5) Files.

(a) The following files are maintained in the Cribbing Subsection:

1. Files of originator numbers, TSUDENSAKI, and stereotype examples are maintained of all Water Transport decodes.

2. HATSU files of all Water Transport traffic are maintained.

(b) Material is kept in files as long as it is of operational use. It is promptly stored in the Military Cryptanalytic Branch storage space when it is no longer currently usable.

(c) Filing, processing and analysis of all decodes prior to 1 January 1945 have been discontinued.

(6) Reports.

(a) Daily reports of numbers of multiple keys recovered, stereotypes keyed in, overlaps scanned, decodes processed and scanned.

(b) New stereotypes found exploitable are published in a weekly report on Japanese Army codes.

(c) New techniques developed are published in a weekly report on Japanese Army Codes.

10. From a study of the Japanese Water Transport Section the problems of securing adequate ratings for personnel, and providing fluorescent desk lamps for the personnel on the night shifts, seem to be the major ones. Steps towards the solution of these problems have already been taken, as follows:

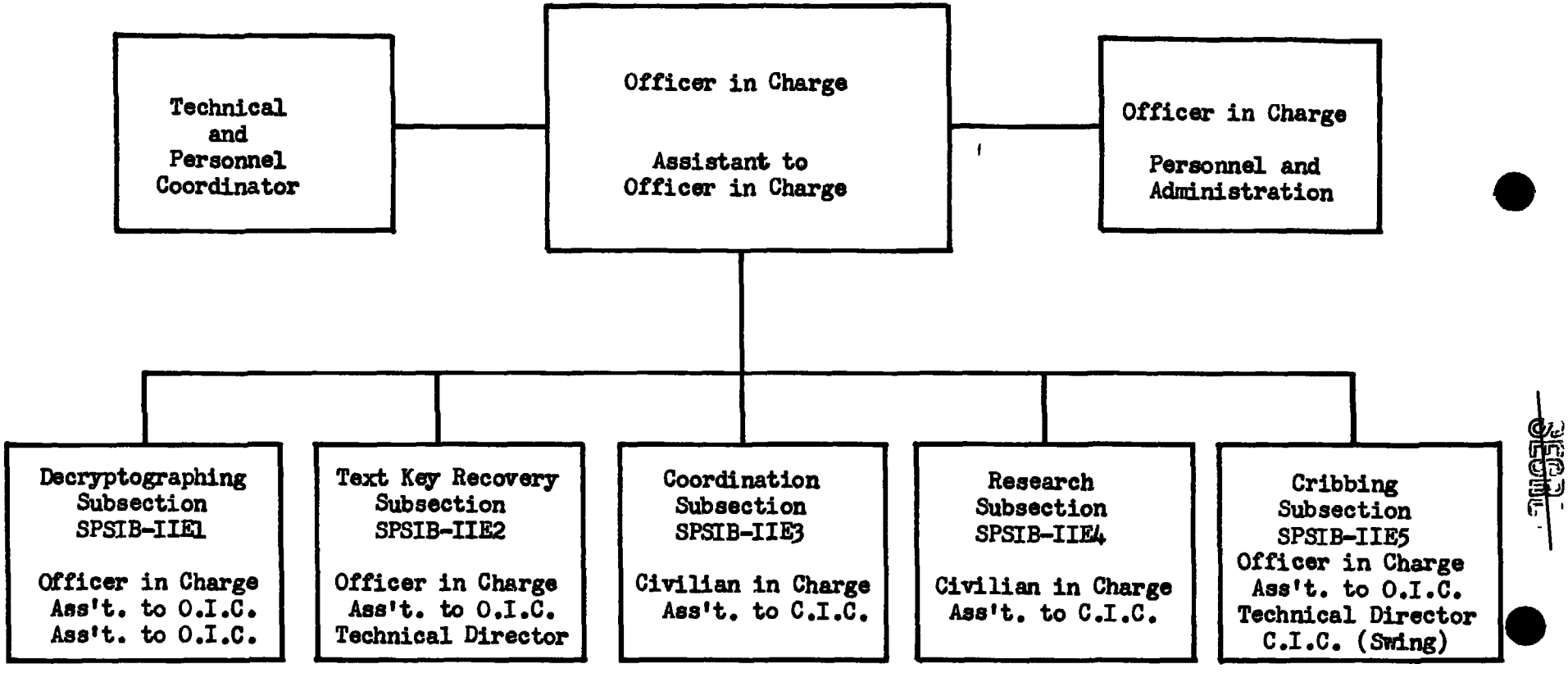
a. In regard to securing adequate ratings for personnel, the Personnel Branch has been contacted, with the result that some of the jobs are being reallocated.

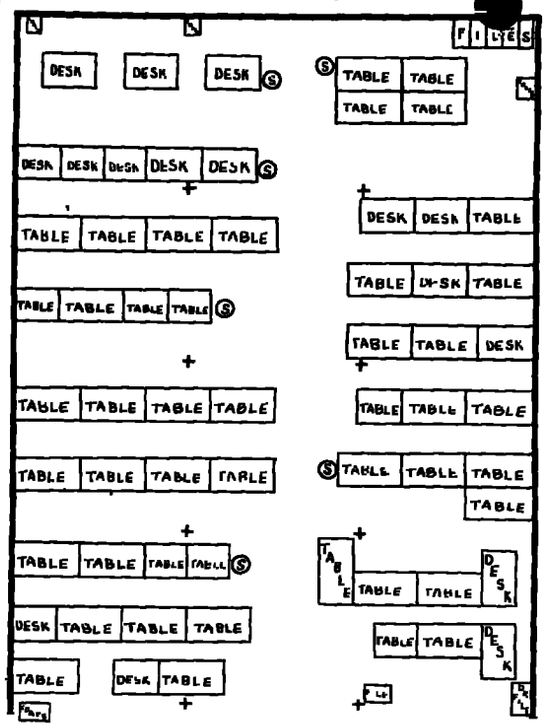
b. In regard to the lack of sufficient lighting on the night shifts, the Supply Branch has been contacted for the purpose of expediting the delivery of the fluorescent desk lamps, and these lamps will be supplied to the Japanese Water Transport Section as soon as they are available in the Supply Branch.

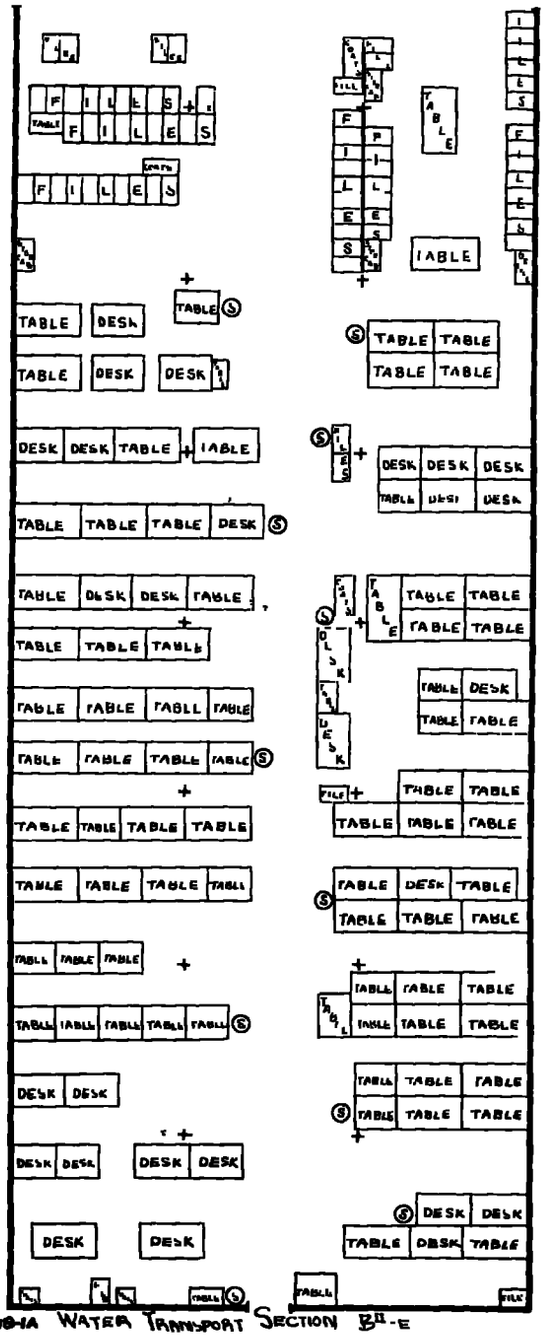
2 Incls
1. Org Chart, SPSIB-25
2. Floor plan, SPSIB-25

JAPANESE WATER TRANSPORT SECTION

SPSIB-IIE







SPSIS-IA WATER TRANSPORT SECTION B[11]-E

OPERATION - B

2nd Floor

SECRET

Ⓢ SECRET TRASH

JAPANESE ARMY GROUND SECTION, SPSIB-2F
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

1. The overall mission of the Japanese Army Ground Section is the decryptographing of Japanese Army Ground traffic.

2. This section is divided into five subsections, as illustrated on the organizational chart attached as Inclosure 1.

3. The Japanese Army Ground Section works in close liaison with the following units:

a. Traffic Section, SPSIB-2C, which supplies the traffic of the Ground systems; files traffic of major systems being read on a current basis.

b. Machine Branch, which produces machine decodes and prepares special runs, listings, etc., used in analysis and recovery work.

c. IBM Liaison Subsection, of the Research and Liaison Section, SPSIB-2B, which conducts liaison and delivery service with the Machine Branch.

d. Cryptographic Intelligence Subsection, of Research and Liaison Section, SPSIB-2B, which supplies the latest code instruction information on changes and developments in the Ground systems.

e. Isolog Subsection of Traffic Section, SPSIB-2C, which exploits and supplies isologs for analytical purposes.

f. Traffic Analysis and Control Branch, which furnishes personnel to Originator Series Unit to edit D.D.'s and service headings of decoded messages; selects priority messages to be decoded by hand and messages suspected of containing stereotypes for the Cribbing Subsection; routes messages believed to be important in systems not currently readalbe, to be filed and decoded as soon as possible, maintains exchange of information relative to use of discriminants.

g. Language Branch, which furnishes scanners to scan all decoded messages and classify same as to contents and to mark originator numbers, supplies bookbreakers to work on new codebook and personnel to help in establishing originator series, maintains liaison in the matter of special requests for degarbling, rephasing, or plain decoding of certain messages or parts thereof, as required..

h. Records and Documents Subsection, SPSIB-2A3, of Services Section, Military Cryptanalytic Branch, which distributes incoming and outgoing cryptographic materials, reports, etc.

i. Message Center Subsection, SPSIB-2A2, of Services Section, Military Cryptanalytic Branch, which handles incoming and outgoing communications with other agencies.

j. Central Bureau Brisbane and India-Burma Theatre, which maintain close liaison in all phases of work, including exchange of recoveries, discoveries, technical developments, etc.

k. Message Service Subsection, SPSIB-2C3, of Traffic Section, Military Cryptanalytic Branch, which supplies messages or parts thereof required for messages of which decodes have been requested for some special purpose.

4. Personnel.

a. The following is a list of the number of personnel in the Japanese Army Ground Section:

Male Officers	- 9
WAC Officers	- 3
Enlisted Men	- 3
Enlisted WAC	- 12
Military Personnel	- 27
Civilians	- 382
Total Personnel	- 409

b. This total number of personnel is stated as not adequate to fulfill the mission assigned. Approximately 20 additional persons are needed to perform filing duties on a permanent basis. This additional personnel has been requisitioned, and are being added to the section as they are cleared.

5. The Japanese Army Ground Section is located in Wing 6, second floor, Operations "B", except for several units which are located near units with which they maintain close liaison in Wing 5 of Operations "B", and Wing 6 of Operations "A". A floor plan of this section is attached as Inclosure 2. However, this space is not adequate for the needs of this section. The subsection handling traffic should have approximately twice the space it now occupies, since there will be an increase, rather than a decrease, in the amount of traffic to be filed. Present quarters are barely adequate. The location of this section is convenient for work with other sections. The space problem is being reviewed by the Control Office, and if and when additional space is available, it will be given to this section.

6. The lighting in the Japanese Army Ground Section is inadequate on the night shifts. The Supply Branch has been contacted, and as soon as additional lamps are available, they will be distributed where necessary.

7. The files maintained by this section are indicated under the discussion of the subsections of the Japanese Ground Section.

8. The following is a list of the reports prepared by this section:

a. Daily production report made to the Records and Documents Subsection, SPSIB-2A2, Services Section, Military Cryptanalytic Branch.

b. Week in Review report - prepared to show progress made in this section.

c. Monthly report of messages decoded, including systems - directed to the Commanding Officer.

d. Semi-monthly progress report directed to the Commanding Officer.

9. The Japanese Army Ground Section is composed of the following subsections:

a. Square and BPPS Key Recovery Subsection, SPSIB-2F1.

(1) The mission of this subsection is the recovery of conversion squares and BPPS keys, the determination of new controls and/or indicator patterns, and the necessary preliminary research before the application of production methods is possible.

(2) This subsection maintains a file of the traffic currently under study. When the study is completed, the traffic is forwarded to the Traffic Section, SPSIB-2C.

b. Row-Column Key and Coordinate Recovery Subsection, SPSIB-2F2.

(1) This subsection is responsible for the setting up of overlaps in the initial stages of any period, with the message placement involved therein, and with the recovery of the row-column keys and coordinates.

(2) This subsection files materials such as IBM runs, traffic, placement cards, and the like, required for current problems. Most of the material can be disposed of as soon as the problem is completed. The rest of it is disposed of within several months. Records of recoveries are kept until a period is considered to be closed, then destroyed. By the time the period is closed, all recoveries will have been incorporated into reports and permanent record placed in Military Cryptanalytic Branch file.

c. Cryptographic Subsection, SPSIB-2F3.

(1) This subsection is responsible for decryptographing all messages, including degarbling and rephasing. (Note: Rephasing is a term meaning placing in phase of out-of-phase messages.)

(2) The following files are maintained in this subsection:

(a) Traffic of smaller systems or portions of systems being decoded. It has been suggested that the files of those messages which are duplicates of messages already decoded, but which arrive after decode is made, be eliminated.

(b) Special requests - request forms and traffic. These are held until completed and duplicate of request form is held for one year to prevent duplicate decoding.

(c) Log files, mainly on IBM cards, of all messages decoded. These files are permanent as they are the only record of decodes anywhere.

(d) Records of production, number of decodes, processed, etc. These are kept in a book which may be disposed of when filled. Data will have been incorporated into reports, weekly and otherwise.

(e) Deadhead messages - for reference of Language Branch personnel.

d. Text-Key Recovery Subsection, SPSIB-2F4.

(1) The purpose of this subsection is to recover text-keys, set-up overlaps, audit same, and distribute recovered keys to all agencies and/or units requiring same (i.e. Central Bureau Brisbane, India-Burma Theater, weekly report, other Signal Security Agency units.)

(2) Records of recoveries are filed permanently. Records of overlaps assigned and progress thereon are kept until the period is closed. Overlap worksheets are kept permanently unless text-key book has been captured subsequent to completion.

e. Cribbing Subsection, SPSIB-2F5.

(1) This subsection acts as a service unit to the Text-Key Recovery Subsection, determining the existence of cribs.

(2) The following files are maintained in this subsection:

(a) Decoded messages used for study. Those prior to 1 July 1944 were disposed of in December 1944.

(b) Cross-reference originator files (cards). Kept permanently.

(c) Record and document files. They consist of weekly reports, order of battle reports, and other documents of use to the Cribbing Subsection.

(d) Raw traffic file (fourth copy), by HATSU for the duration of work on a given additive period. This file will be eliminated by a combined HATSU file to be maintained by the Traffic Section.

(e) Stereotype card file.

(f) Stereotype production card file of the third copy of slips issued to text-key recoverers, plus attached first copy of slip bearing results of testing and/or use. (Note: "Slips" are information slips indicating identification of message - HATSU, CHIYA, file date and time, group count, system and period, groups keyed in, location of such groups, etc.)

(g) Originator number files (in books) - kept permanently.

(h) Traffic for periods now unworked. This traffic is gradually being placed in the basement of the cafeteria - filed by system and normally by page.

(3) The following files have been discontinued because of duplication of effort:

(a) File of translations from bulletin.

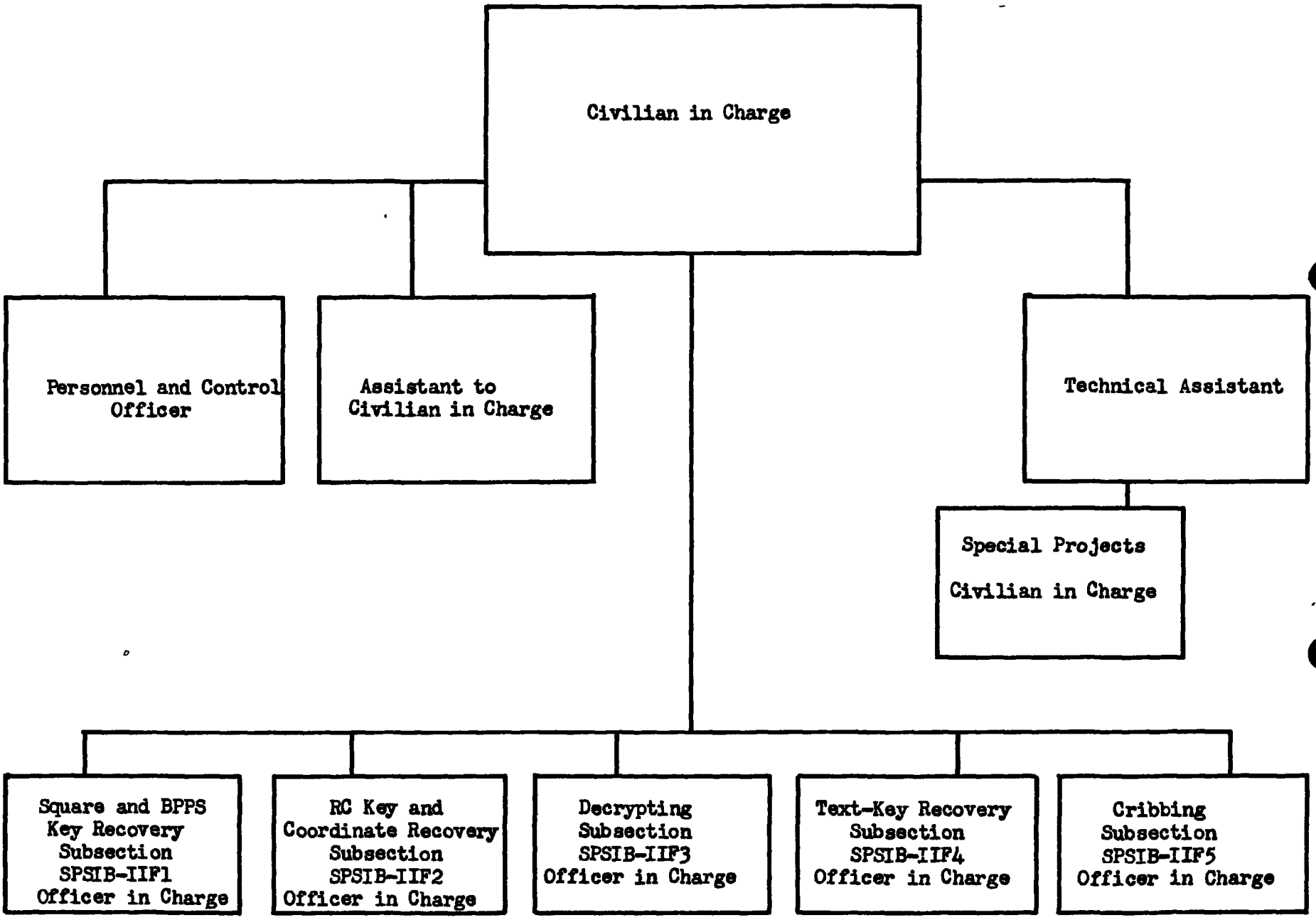
(b) Originator cards.

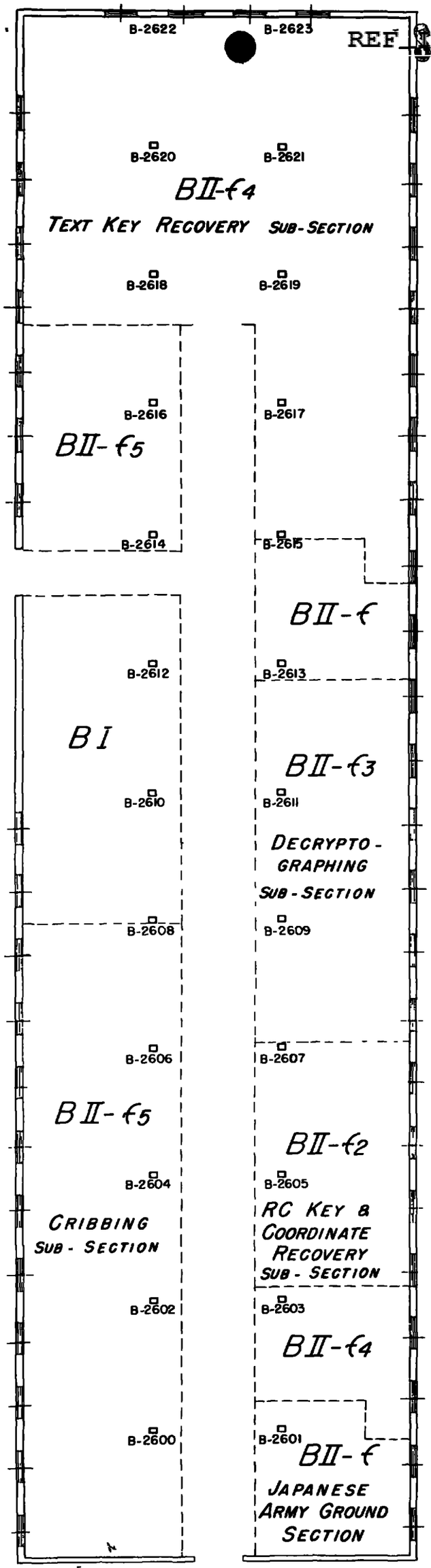
10. It has been noted, from a study of the Japanese Army Ground Section, that the delivery service by the IBM Liaison Subsection, SPSIB-2B4,

Research and Liaison Section, Military Cryptanalytic Branch, between Operations "A" and Wing 6 of Operations "B", is inadequate on the night shifts. In some instances it is nonexistent, and the personnel in this section have to deliver the traffic themselves. A solution to this situation is being investigated by the Administrative Officer, Intelligence Division.

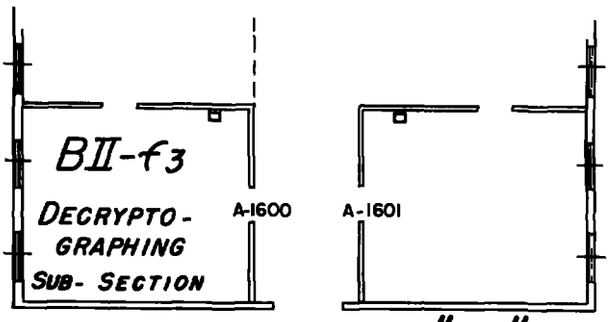
2 Incls
1. Org Chart, SPSIB-2F
2. Floor plan, SPSIB-2F

JAPANESE ARMY GROUND SECTION
SPSIB-IIF





2ND FLOOR
6TH WING

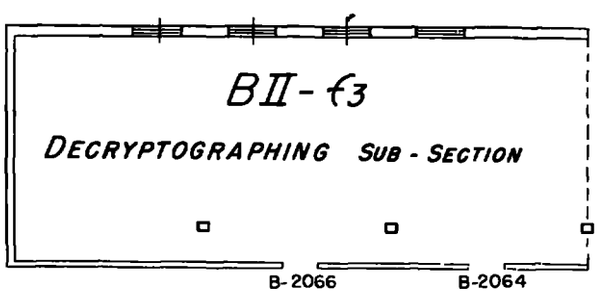


OPERATIONS "A"

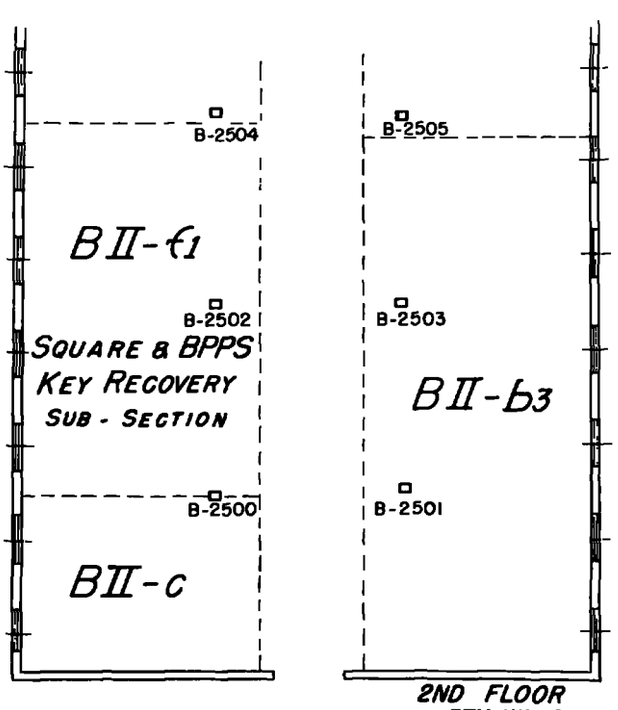
1ST FLOOR
6TH WING
FRONT

JAPANESE ARMY GROUND SECTION

SPSIB-IIF



2ND FLOOR
ADJOINING
6TH WING



2ND FLOOR
5TH WING
FRONT

OPERATIONS "B"

2ND FLOOR
6TH WING

SPSIB-1A

JAPANESE AIR SECTION, SPSIB-20
MILITARY CRYPTANALYTIC BRANCH, SPSIB-2

1. The mission of the Japanese Air Section, SPSIB-20, is the cryptanalysis and decryptographing of Japanese Air systems. This unit collaborates with the Government Code and Cipher School, and together, the two organizations process approximately half of the available traffic in any period, which periods are usually two months duration. The remainder of the traffic is not read, but the Officer in Charge of the Japanese Air Section states that the traffic read represents an adequate sampling of traffic.

2. This section works in close liaison with the Machine Branch, Language Branch, Traffic Analysis and Control Branch, Government Code and Cipher School, Central Bureau Brisbane, Wireless Experimental Center, India-Burma Theatre.

TAB H

3. The Japanese Air Section is divided into six subsections, as illustrated on the or ganisational chart attached as Inclosure 1. The functions of each section are as follows:

a. Control and Records Subsection, SPSIB-201. Maintenance of personnel records, production records; assignment of work, liaison with Machine Branch and other sections.

b. Cryptographic Subsection, SPSIB-202. Processing of raw traffic with view to reading and decoding messages; processing of decodes; maintenance of records of flow of traffic, decodes, etc.

c. Text Keys Subsection, SPSIB-203. Recovery of text keys by reading of overlaps.

d. Cribbing Subsection, SPSIB-204. Study of patterns in decodes; establishment of stereotypes; tabulation of originators; keying in patterns and stereotypes in traffic to be used as cribs on overlaps.

e. Indicator Keys Subsection, SPSIB-205. Recovery of row and column keys and construction of coordinates.

f. Research Subsection, SPSIB-206. Study of new developments of encodement; development of new processes in key recovery; study of square structure and recovery; systemization and methodology, particularly at the beginning of new additive period.

4. The volume of work differs in each subsection of the Japanese Air Section as follows:

a. Control and Records: Will increase and decrease in accordance with growth of Text Keys Subsection of Japanese Air Section. The number of readers available control the fluctuation of the Text Keys Subsection.

b. Cryptographic Subsection: Average daily flow of traffic is approximately 2,000 messages. Flow of decodes depends on size and production of Text Keys Subsection.

c. Text Keys Subsection: There are 1,000 pages of text keys in each key book period, and the periods change on an average of every two months. It will be noted that it takes approximately two weeks for one person to decode one page. There are only forty-five people in the section.

d. Cribbing Subsection: Volume of work is dependant on number of decodes, which in turn is dependent upon number of pages of the key books which can be read by the Text Key Recovery personnel.

e. Indicator Keys Subsection: The volume of work in this section increases and decreases according to the frequency of the key book change.

f. Research Subsection: Volume of work depends upon the new problems to be studied, new approaches to old problems, number of squares to be recovered, etc.

5. Personnel.

a. The following is a list of the personnel employed in the Japanese Air Section:

Male Officers	- 4
WAC Officers	- 3
Enlisted Men	- 3
Enlisted WAC	- 10
Military Personnel	- 20
Civilians	- 130
Total Personnel	- 150

b. The above personnel work on all three shifts.

c. The number of personnel employed in this section is not adequate to completely perform the mission assigned. Approximately 125 additional people are needed to fulfill the personnel requirements of this section. These have been requisitioned from the Personnel Branch.

d. There is dissatisfaction among the employees regarding the necessity for working on the night shifts, and some have refused to work these shifts, mainly because of the lack of adequate lighting. A sufficient number of fluorescent desk lamps are now on requisition in the Supply Branch, and it has been noted that as soon as these become available in the Supply Branch, they will be distributed as needed.

SECRET

6. The Japanese Air Section is located in Wing 4, second floor, Operations "B". A floor plan of this section is attached as Inclosure 2.

7. Files:

a. The following files are maintained in the Japanese Air Section.

(1) Traffic in process.

(2) Processed traffic.

(3) Card indexes.

b. All of these files are necessary, and the material is filed in the section until that time when work has been completely stopped on the period covered - then the traffic is stored in the cafeteria basement storage area.

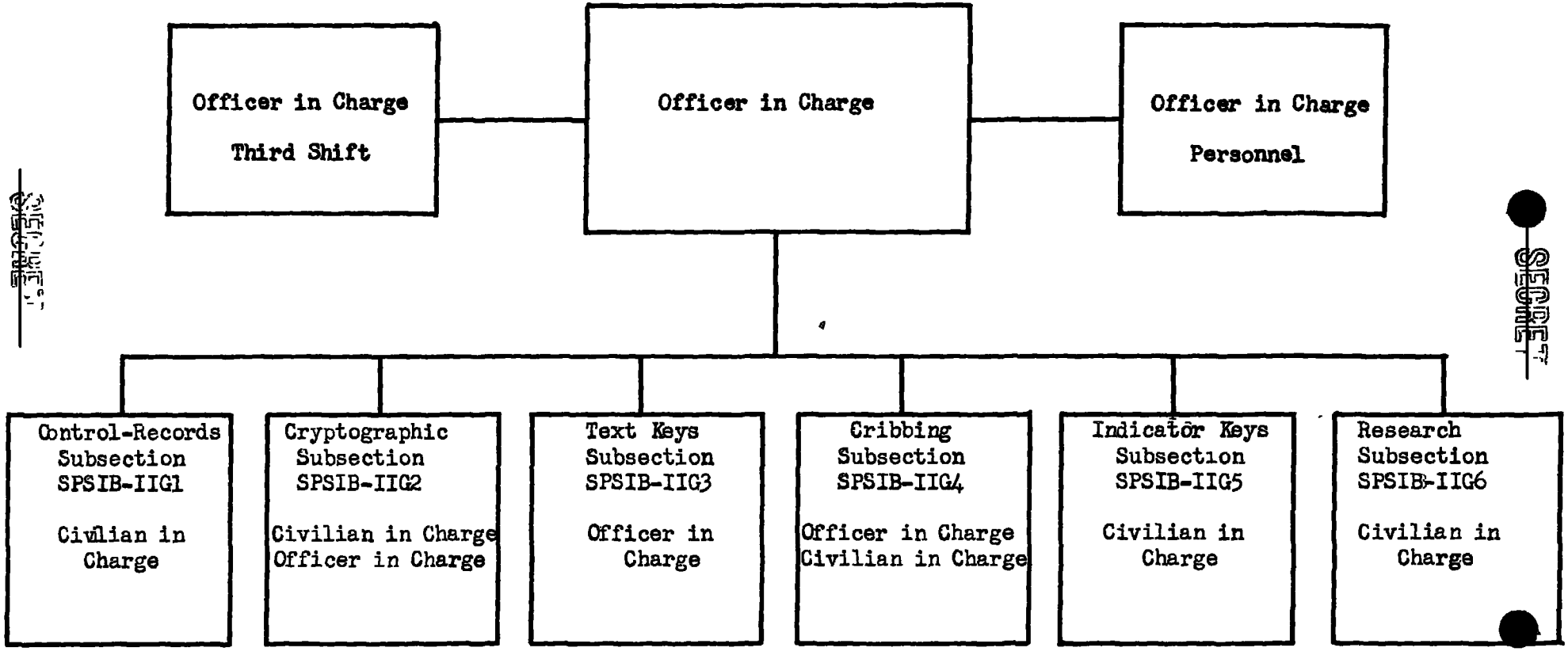
8. Individual reports are made by each subsection to the Officer in Charge of Branch Operations. These reports are distributed to the Military Cryptanalytic Branch daily, weekly, and semi-monthly.

9. Reference material in the Japanese Air Section consists of Order of Battle reports, gazetteers, dictionaries, HATSU-CHIYA runs, ON runs. This material is kept as long as it is current, then it is disposed of.

2 Incls
1. Org Chart, SPSIB-20
2. Floor Plan, SPSIB-20

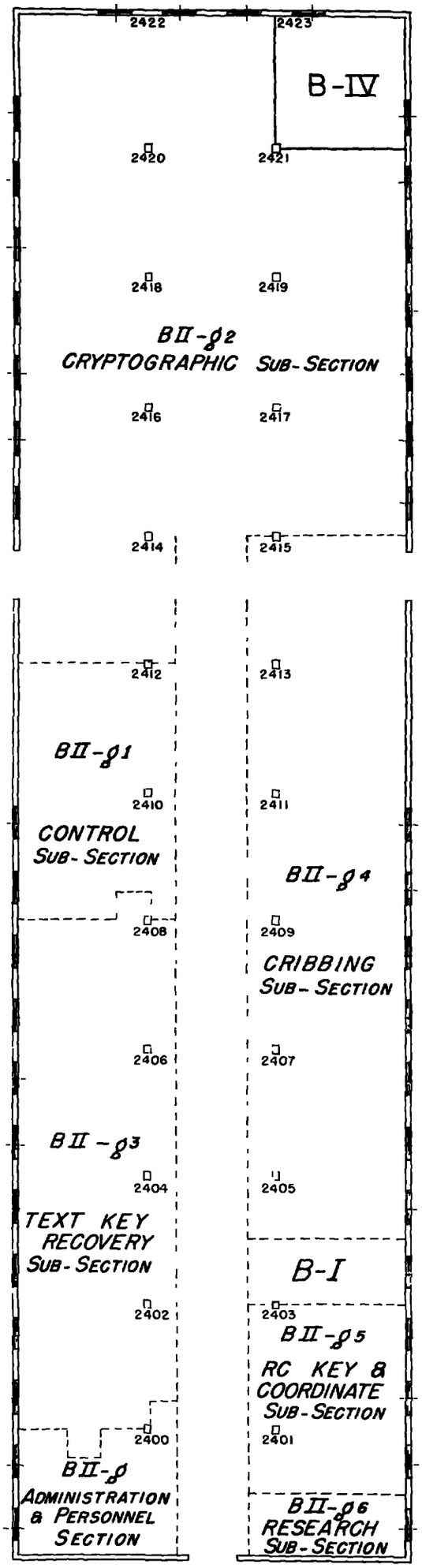
JAPANESE AIR SECTION

SPSIB-IIG



SECRET

~~SECRET~~ JAPANESE ARA SECTION



SPSIB-IIG

OPERATIONS "B"

2ND FLOOR
4TH WING

SPSIS-1A

~~SECRET~~

JAPANESE ARMY TRANSLATION SECTION, SPSIB-1R
LANGUAGE BRANCH, SPSIB-1

1. The mission of the Japanese Army Translation Section is the code recovery and translation of all Japanese Army messages.

2. The Japanese Army Translation Section is composed of the subsections as illustrated on the attached organizational chart, Inclosure 1. The functions of each section are detailed as follows:

a. Routing Subsection, SPSIB-1RT. Logging and routing of all Japanese Army decoded messages turned over to the Language Branch by the Military Cryptanalytic Branch.

b. Water Transport Subsection, SPSIB-1RK. Code recovery, scanning, and translation of all Japanese Army Water Transport messages.

c. Army Administrative Subsection, SPSIB-1RM. Code recovery, scanning, and translation of all Japanese Army Administrative messages.

TAB I

d. Air Subsection, SPSIB-1RA. Code recovery, scanning, and translation of all Japanese Army Air messages.

e. Research Subsection, SPSIB-1RR. Translation of code instruction messages, weather messages, and cryptographic documents. This subsection also has routine administrative supervision over translators attached to the various Military Cryptanalytic Branch isolog and stereotype units.

f. Liaison. Teletypes important messages to G-2 and answers queries on translations.

g. Training and Development. The personnel in this group give short courses in Japanese for non-linguistic personnel throughout the Intelligence Division, arrange orientation programs for new translaters, translate plain text, and give linguistic assistance to members of Traffic Analysis and Control Branch.

3. The Japanese Army Translation Section works in close liaison with the following sections:

a. Japanese Army Ground Section, SPSIB-2F.

b. Japanese Water Transport Section, SPSIB-2E.

c. Japanese Army Air Section, SPSIB-2G.

d. Research and Liaison Section, SPSIB-2B

e. Bulletin Section, SPSIR-8,

f. Address Section, SPSIB-2D,

g. G-2 Pacific Order of Battle (Ground),

h. G-2 Economic Branch,

i. G-2 Pacific Order of Battle (Air),

j. G-2 Immediate Reports.

4. The volume of work in the Japanese Army Translation Section is illustrated on Inclosure 2.

5. Personnel.

a. The following is a list of the personnel in the Japanese Army Translation Section:

Male Officers	- 53
WAC Officers	- 0
Enlisted Men	- 129
Enlisted WAC	- 1
Military Personnel	- 183
Civilians	- 101
Total Personnel	- 284

b. The foregoing personnel work on all three shifts, as follows:

Day	- 224
Swing	- 56
Graveyard	- 4
Total	284

c. The personnel assigned to this section is not adequate to translate all the material completely. All decodes are scanned currently, 40%-60% being discarded as deadheads. Messages scanned and designated as O and OP messages - which are the highest priority messages - are translated within 24 hours. Other messages, designated as P and ✓ which are low priority messages, are added to the backlog.

d. Additional personnel has not been requisitioned because 34 enlisted men are in the Japanese Language School at the present time, and 22 enlisted men are to enter shortly.

e. Complaint was voiced regarding the low grades of the enlisted personnel of the Japanese Army Translation Section. The Control Office prepared a memorandum on this subject and it was submitted to the Commanding Officer. As a result of the recommendations contained therein, a Board of Officers has been appointed to investigate the grades of the enlisted men at the Signal Security Agency, in relation to the jobs they are performing.

6. Space.

a. The Japanese Army Translation Section is located in Wing 1, second floor, Operations "B". A floor plan of this section is attached as Inclosure 3.

b. The space allotted to this section is adequate, and the location is fairly convenient for contact with other sections. However, a secure telephone between the Air Subsection, Japanese Army Translation Section, Language Branch, and the scanners located in the Japanese Air Section, Military Cryptanalytic Branch, is needed to effectively accomplish the mission of these sections. The Post Signal Officer has been contacted with regard to this matter, but telephone equipment is not presently available.

7. The lighting in this section is not adequate. Additional fluorescent lamps have been requisitioned from the Supply Branch, but none were obtained, as they are not available in this branch. As soon as a supply of these lamps are obtained, a sufficient quantity will be sent to the Language Branch.

8. Files.

a. The following files are maintained in the Japanese Army Translation Section:

(1) Worksheets.

(a) Messages to be translated. Divided into Water Transport, Administrative, and Air Section. (Maintained until translation is completed.)

(b) "J" file and "C" file. Consist of traffic, decode and translation stapled together. Arranged by Bulletin series. (After 6 months these files are transferred to permanent storage under the cafeteria.)

(c) File of bulletins. Used for quick reference for translators only. (Destroyed after 1 year.)

(d) Copies of messages teletyped to G-2. (Destroyed within 1 week.)

(c) Locator cards. For matching parts. (Permanent.)

(2) Bookbreakers' Files.

(a) Code history. One card file for each code, showing history of every group. (Permanent.)

(b) Ship files, giving ship names, numbers, types, new ship name assignments. (Permanent.)

(3) Translators' Aids.

(a) Nana Place Name File. File on loan from SPSIB-1SP, pending publication. (Permanent.)

(b) Air Technical Terms. (Permanent.)

(c) Order of Battle Units by place. (Permanent.)

(d) Air Order of Battle Units. (Permanent.)

(e) Outgoing G-2 cables. (Permanent.)

(f) Incoming G-2 cables. (Permanent.)

(g) G-2 Far Eastern Magic Summary. (Permanent.)

(h) G-2 Shipping and Economic Notes. (Permanent.)

(i) G-2 Weekly Summary. (Permanent.)

(j) MIS Order of Battle Bulletin. (Permanent.)

(k) Military Cryptanalytic Branch Information Bulletin. (Permanent.)

9. Reports.

a. The following reports are prepared in the Japanese Army Translation Sections:

(1) Technical circulars issued by various bookbreaking teams and specialists are distributed by the Language Branch Service Unit to all translators, G-2, Military Cryptanalytic Branch, and overseas agencies.

(2) Daily translation figures telephoned to Chief, Intelligence Division and sent to Military Cryptanalytic Branch for their Information Bulletin.

(3) Weekly summary of intelligence and new developments in Japanese Army Translation Section sent to Military Cryptanalytic Branch for inclusion in "The Week in Review."

(4) Semi-monthly report on code reconstruction and intelligence contained in messages submitted to Branch Chief for forwarding to the Commanding Officer.

10. The possible desirability of reorganizing the Language Branch and the Military Cryptanalytic Branch so that the division was based on code books, rather than on functions, was investigated. The arguments furnished by the Language Branch against such a reorganization, are attached as Inclosure 4.

11. The following steps are being taken to improve the Japanese Army Translation Section operations:

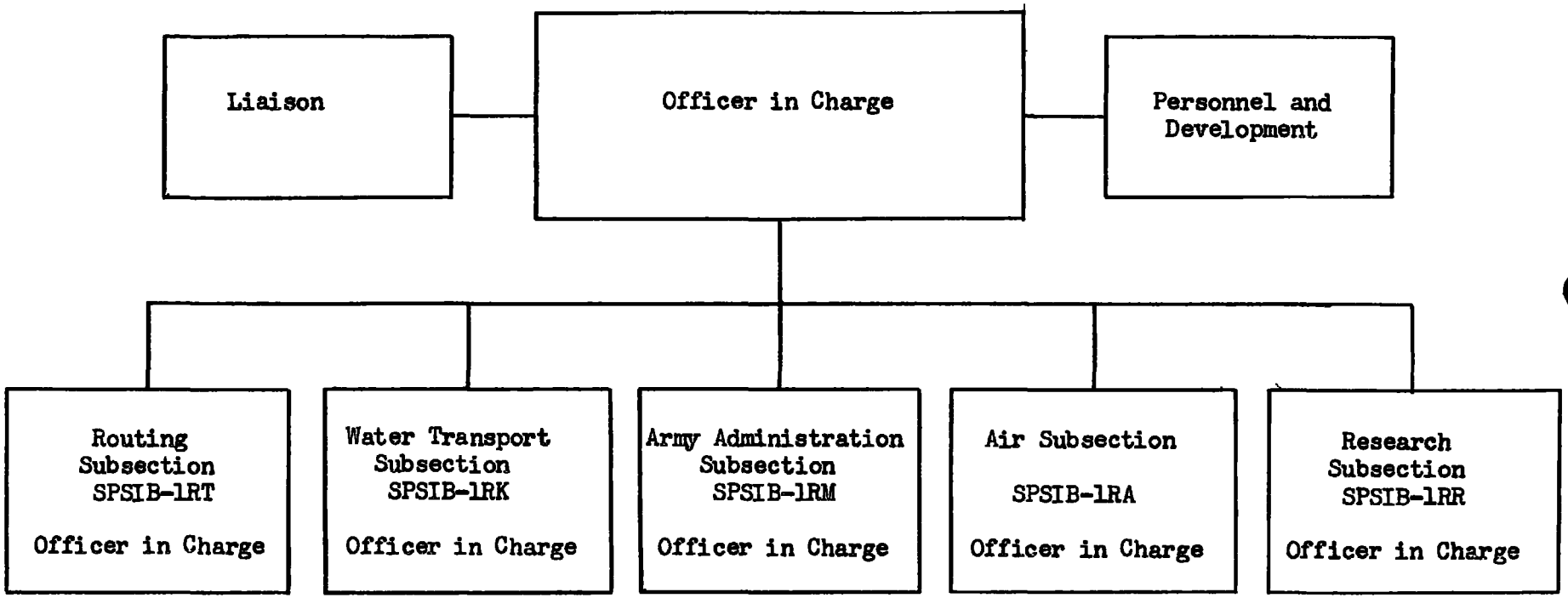
a. A reviewing unit is being created to standardize English translations for Japanese originators.

b. Chief, Order of Battle Section, Information and Liaison Branch, is taking steps to publish a new edition of the Order of Battle Dictionary, which is in constant use in the Japanese Army Translation Section.

c. Efforts have been made to have the Military Cryptanalytic Branch attach traffic to a greater portion of machine decodes sent to the Language Branch. This would greatly facilitate degarbling. At present, about 30% of the decodes coming into the Japanese Army Translation Section have no traffic attached.

4 Incls
1. Org chart - SPSIB-1R
2. Work load rep - SPSIB-1R
3. Floor plan - SPSIB-1R
4. Language Br Org

JAPANESE ARMY TRANSLATION SECTION, SPSIB-1R



JAPANESE ARMY TRANSLATION SECTION

Allocation of Translator Personnel and Work Load
(as of 23 May 1945)

SUBSECTION	SCANNERS	MESSAGES** SCANNED DAILY	BOOK-BREAKERS	FINAL CHECKERS	CHECKERS & TRAINING OFFICERS	TRANSLATORS	DAILY TRANS-LATIONS	BACKLOG
Air, SPSIB-1RA	13	300	4	3	2	11	65	300
Water Transport, SPSIB-1RK	6	250	6	4	9	22	108	2,050
Army Administrative, SPSIB-1RM	22	2,800	6	9	5	38	280	13,200
Research, SPSIB-1RR*	1	262	0	2	0	4	21	0

* Includes only the CI Unit. Twenty additional translators are engaged in isolog and stereotype work.

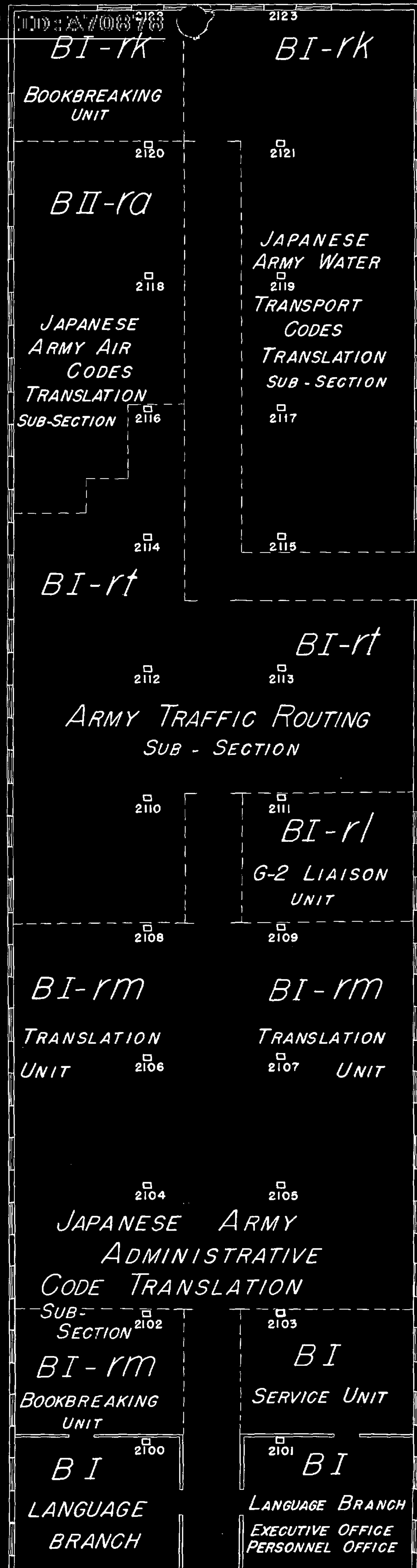
** Messages number refer to groups of 40 groups each.

JAPANESE TRANSLATION SECTION

SPSIB-IR

OPERATIONS "B"

WING I
2ND FLOOR



LANGUAGE BRANCH ORGANIZATION

1. Although the organization of the Intelligence Division was thoroughly investigated and its present form established when the general reorganization of the Signal Security Agency was initiated in September 1944, the question is raised from time to time as to whether its division into the functional branches now in effect is not an artificial one. It has been suggested that a more logical arrangement would be to organize the Japanese Army Problem by codes so that all work relating to each particular code system would be accomplished within a single administrative unit. Instead of the Japanese Army Problem being shared by the Language Branch, the General Cryptanalytic Branch and the Traffic Analysis and Control Branch, a Ground System unit, a Water Transport System unit, an Air unit, and an Address Unit would be organized, each unit handling all aspects of the work relating to those systems.

2. From a cursory point of view, this suggestion might appear to be logical, especially in view of the fact that, at least in part, this is the method followed in the General Cryptanalytic Branch in those sections dealing with other than Japanese traffic. It is also true that in certain research sections of the Military Cryptanalytic Branch translators work at adjoining desks to the cryptanalysts. Further, it is claimed that space could be saved and that the personnel, 37 in all, forming the Traffic Section of the Japanese Army Translation Section of the Language Branch, whose duty it is to log and match parts of decoded messages, could be merged with the Traffic Section of the Military Cryptanalytic Branch.

3. However, a more thorough examination into the picture reveals the following:

a. Translators now attached to the Military Cryptanalytic Branch are not engaged in actual translation. Their mission is to assist the cryptanalysts, through linguistic advice, to recovery keys and to isolate isologs and stereotypes for the purpose of furthering the cryptanalytic effort.

b. Where so many systems are involved and the volume fluctuates, translation requires an organizational flexibility impossible to attain should groups of translators be assigned to separate cryptanalytic problems. Furthermore, if translators were divided up under separate administrative control they would be divorced from the mutual association and consultation so necessary in effectively handling the Japanese language.

e. Separation of military translators from the translators dealing with Diplomatic, Military Attache, and Commercial traffic would have the same derogatory effect. Further, such separation of translators into small groups would divorce all of them from the Special Projects Section which is doing vital research work for all the translators, and from the Training Section (Japanese Language School), leaving the latter two sections at loose ends.

d. It is also doubtful whether either personnel or space could be saved in the logging and routing processes. All decodes flowing from the Military Cryptanalytic Branch into the Language Branch must pass through the Address Section of the Military Cryptanalytic Branch where the ATE is entered. This routing would have to be accomplished in any event and it is obvious that the flow of traffic can be much more effectively handled when it all goes to one receiving point, than it would be if it had to be sorted and directed to several receiving points.

e. The utilization of cross system duplicate messages would be greatly handicapped under the suggested organization. That physical separation makes consultation between two groups of translators difficult, and coordination less satisfactory, has already been demonstrated by the fact that duplicate messages between the Military Attache system and the Army systems, although known to occur, have been very difficult to find.

f. There is the further point that the function of the Language Branch, in serving as the funnel between the MIS and the Intelligence Division for the transaction of most business, would be severely handicapped. A Liaison Unit within the Language Branch now effectively handles all priority problems and questions from the MIS. A special handling unit working on the entire Japanese Army problem ascertains that urgent messages are expedited to the MIS by teletype regardless of code system.

g. The filing systems in the Language Branch and the Military Cryptanalytic Branch are completely different and in no way related; thus, there is no essential duplication of files. At present, all the logs of the Japanese Army Section of the Language Branch are handled in one unit. Were the translators to be separated into several units, the logging would also have to be divided, with consequent increase rather than decrease in personnel needs.

h. A final point to be considered is that on the average, 60% of the decodes received by the Language Branch are machine decoded, and therefore, are not handled in the Military Cryptanalytic Branch, except for the attachment of the raw traffic and the entering of the ATE.

In other words, the Military Cryptanalytic Branch does not actually decode the majority of traffic scanned and translated by the Language Branch. It might, therefore, be said that there is just as much reason for merging the Language Branch or some part of the Language Branch with the Machine Branch as there is to merging it with either of the Cryptanalytic Branches.

4. The whole matter, in its final analysis, basically turns on the difficulty and uniqueness of the Japanese language. Merely because a set-up of cryptanalysis, deciphering, or translation in one language has worked, certainly is by no means, from a practical standpoint, an argument that it will work as well with the Japanese traffic. It is believed, therefore, that the suggestion of decentralizing the Language Branch, so as to merge part of it with the Military Cryptanalytic Branch and part of it with the General Cryptanalytic Branch is unsound, and would not curtail personnel, but as a matter of fact, would require a very much larger increase in personnel with attendant facilities, such as files, logging books, etc.

ORDER OF BATTLE SECTION, SPSIB-3
INFORMATION AND LIAISON BRANCH, SPSIB

1. The mission of the Order of Battle Section is the compilation and distribution of Japanese Order of Battle information, and the establishment of a Central File Index.

2. The Order of Battle Section maintains close liaison with all units and sections of the Signal Security Agency related to the Japanese Army Problem.

3. The volume of work handled by this section is presently decreasing.

4. Personnel.

a. The following is the personnel employed in the Order of Battle Section:

Male Officer	- 1
Civilians	-21
Total Personnel	-22

b. Of the above number, 20 people work on the day shift, one on the swing shift, and one on the graveyard shift.

T.B J

5. The Order of Battle Section is presently located in Wing 3, second floor, Operations "B". The space allotted to this section at the present time is adequate. However, because the various sections of Information and Liaison Branch are in the process of shifting, a floor plan of the section is not included at this time. Due to the decentralisation of files of the Order of Battle Section, it is believed that some of the space in this section could be released to other sections. The newly established Central File Index Unit (Inclosure 1) is not related to other files of the Order of Battle Section, and the files in this unit could be placed in the headhouse if space were available. This would release approximately one and one-half bays.

6. The lighting in the Order of Battle Section is adequate.

7. Files.

a. The following files are maintained in the Order of Battle Section:

(1) Central Index of Signal Security Agency files.

(2) Order of Battle terms.

(3) Air Units (both operational and training)

(4) Ground Units (both operational and training)

(5) Named Unit file (i.e. by Commanding Officer last name)

(6) Permanent military installations

(7) Originator file (translated messages filed by sender)

(8) Officer Name File (files by last name and unit to which attached)

b. A continuous process of decentralizing the files, as far as practical, is now in process. This is covered by a letter from the Officer in Charge, Order of Battle Section, to the Chief, Information and Liaison Branch, which has been approved by the Chief, Intelligence Division. (Inclosure 1)

c. The material in the files is kept indefinitely.

8. The reference material utilized in this section consists of all ultra or captured material relating to Order of Battle. After processing this material, it is released for further distribution, except for one copy of each translated message, which is filed in the Originator File.

9. In regard to the functions which have been discontinued in the last six months, the Order of Battle Section previously had the responsibility of compiling and publishing Order of Battle Runs. However, this responsibility was recently assumed by the Military Intelligence Service, and 8 civilians, belonging to the Order of Battle Section, were sent to the Military Intelligence Service for this work. The result of this move has been to delay publication, but in the future it is believed that this situation will be corrected.

1 Incl
cpy of ltr dtd 30 May 45,
Subject: "Decentralization
of O/B Files", to Chief I & L
Br from OIC O/B Section

ARMY SERVICE FORCES
SIGNAL SECURITY AGENCY
Washington 25, D. C.

SPSIR-3 30 May 1945

SUBJECT: Decentralization of O/B Files

TO: Chief, Information & Liaison Branch

1. Following the transfer of responsibility of publishing the O/B runs from this section to MIS PAC O/B, certain Order of Battle files in this section are not being used sufficiently to justify upkeep. In order that these files may be of greatest use to SSA I recommend decentralization of the following:

a. Air Unit Files (both operational and home code)

b. Ground Unit File (both operational and home code)

c. Operational Code File.

2. Section B-II-g (Air Section) has requested the Air Files. Section B-II-f (Ground Section) has requested the O/B Ground and Operational Code Files. After a thorough check into the functions and needs of the above sections I feel they would serve a much more useful purpose than at present if they were placed within these sections.

3. As a further suggestion, I recommend that sufficient personnel be sent with the files to keep them current and also act as O/B consultants. These people would not be transferred.

4. If the above suggestions are approved it would in no way deprive any other branch or section of the use of these files, but merely attaching them to the section which has the greatest and most urgent need for such information.

H. W. MARTIN
Captain, Signal Corps

COPY

BULLETIN SECTION, SPSIR-8
INFORMATION AND LIAISON BRANCH, SPSIR

1. The mission of the Bulletin Section is to edit, check, type, proofread, and distribute Signal Security Agency translations.

2. This section works in close liaison with the Language Branch, General Cryptanalytic Branch, and MIS.

3. The volume of work in the Bulletin Section averages 1,100 messages per day, and is increasing slightly at the present time.

4. The Bulletin Section is composed of five subsections, as illustrated on the organizational chart, attached as Inclosure 1.

5. Personnel.

a. The following is a list of the personnel employed in the Bulletin Section:

Male Officers	- 5
WAC Officers	- 0
Enlisted Men	- 0
Enlisted WAC	-17
Military Personnel	- 22
Civilians	- 70
Total Personnel	- 92

b. The above personnel work on the day, swing, and graveyard shifts, as follows:

Day	- 50
Swing	- 28
Graveyard	- 14
Total	92

c. At the present time, the personnel assigned is adequate for exercising the mission of the Bulletin Section.

d. There has been general dissatisfaction among the civilian personnel, because of the low ratings, but because of the proposed Civil Service Bill now in Congress, this dissatisfaction has been quieted temporarily.

e. The Officer in Charge of the Bulletin Section believes that the WAC Table of Organization for this section is far too low for the calibre of work required.

6. The Bulletin Section is located in Wing 5, first floor, Operations "B". A floor plan of this section is not included at this time because the sections of Information and Liaison Branch are in the process of moving. Although the space assigned to the Bulletin Section is adequate, its location with respect to the General Cryptanalytic Branch translators, located in Operations "A", is not convenient.

7. The lighting in this section is not adequate. Supply Branch has been contacted and will furnish the necessary fluorescent desk lamps when they are available.

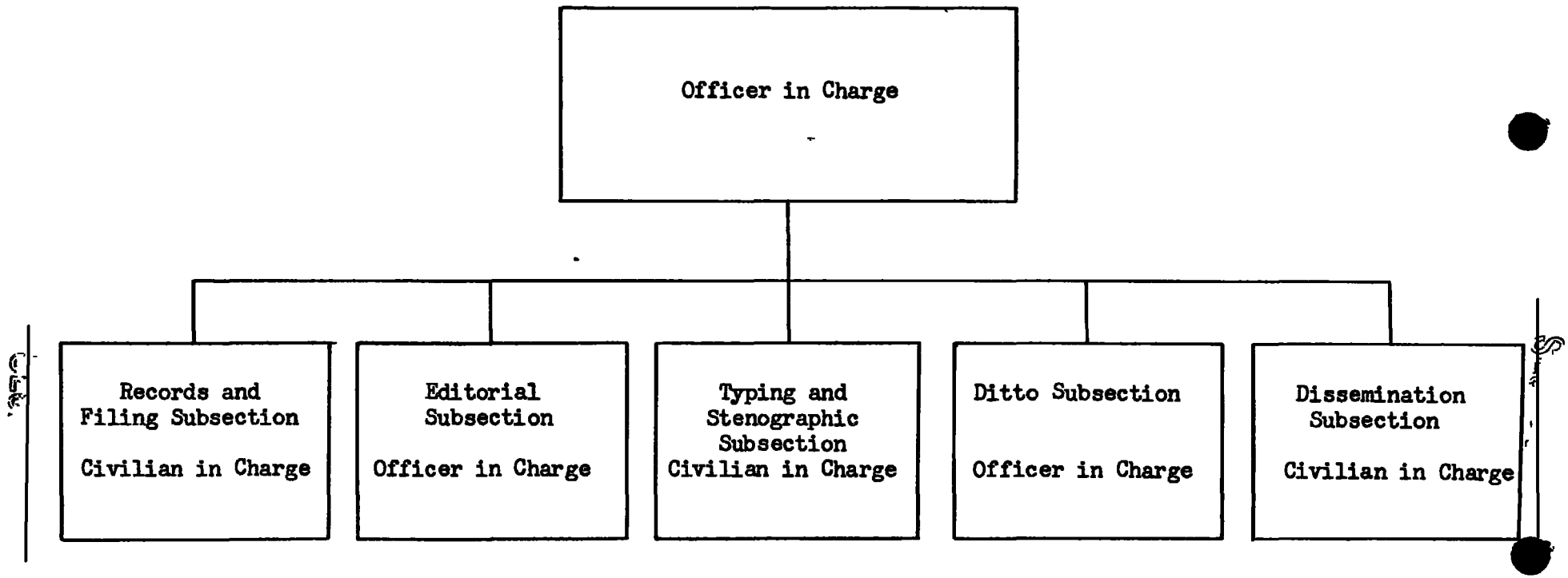
8. Files. Permanent files of all bulletin messages issued by the Signal Security Agency are maintained in this section. Although some of this material can be stored, none of it can be eliminated.

9. Reports. Daily reports of production records by each individual in the section, and by the section as a whole, are published in the Bulletin Section.

10. Reference material consists of the bulletins themselves, dictionaries, semi-cryptographic information relative to the issuing of messages.

1 Incl
Org Chart - SPSIR-8

BULLETIN SECTION, SPSIR-8



SHIPPING SECTION, SPSIR-5
INFORMATION AND LIAISON BRANCH, SPSIR

1. The mission of the Shipping Section is to correlate, file, and furnish information on shipping which may be of use to operations units of Signal Security Agency.

2. This section maintains close liaison with the translators, scanners, and bookbreakers of the Japanese Army Translation Section, Language Branch, the Research and Liaison Section of Military Cryptanalytic Branch, and the Traffic Analysis and Control Branch.

3. Personnel.

a. The personnel in this section consists of 27 civilians.

b. The assigned personnel is not adequate to completely fulfill the mission assigned. Five additional persons are required and have been requisitioned.

c. Except for two persons who coordinate with the Situation Room and the Order of Battle Section on a security shift - either swing or graveyard - the personnel in this section work on the day shift.

4. The Shipping Section is presently located in Wing 3, second floor, Operations "B". Because of the fact that the sections of Information and Liaison Branch are in the process of moving, a floor plan is not submitted at this time.

5. The lighting is adequate.

TAB
L

6. Files.

a. The following is a list of the files maintained in the Shipping Section:

(1) Ship files with cross reference

(2) Sinking file by date.

(3) Area file by date.

(4) DENDAI file: Water Transport, Army Administrative; Diplomatic by HATSU, Navy daily shipping reports by HATSU.

(5) J bulletins by J number.

(6) Route file.

(7) File of unrecovered ship names and place names.

b. The material is maintained in the file until it is obsolete or ceases to be used. At that time it is eliminated.

c. The following files have been discontinued within the past six months:

(1) Internal cross reference file.

(2) Sinking by ship name and number.

(3) Area or name file.

7. Reports.

a. Periodic reports on location of shipping units are distributed to the following:

(1) Language Branch (24 copies)

(2) Military Cryptanalytic Branch (111 copies)

(3) Traffic Analysis and Control Branch (10 copies)

(4) G-2 (2 copies)

(5) Order of Battle Section (7 copies)

(6) Situation Room (1 copy)

(7) Overseas (11 copies)

b. The weekly report on convoy activities has been discontinued except for distribution to the Research and Liaison Section of Military Cryptanalytic Branch.

c. The following material is used as reference material by the Shipping Section:

(1) Reference books such as Lloyds and Talbot Boothe

(2) IBM runs on ship activity.

(3) Order of Battle runs on location of Army units.

(4) Special studies.

SITUATION ROOM, SPSIR-4
INFORMATION AND LIAISON BRANCH, SPSIR

1. The mission of the Situation Room is to study, on panels, all current military operations; to report weekly on all diplomatic and economic developments; to provide collateral material of value to translators and other operating personnel.

2. The Situation Room works in close liaison with the Language Branch translating units, the Liaison and Information Sections of the Information and Liaison Branch.

3. In the period from 1 to 27 May 1945, there have been 1,103 admissions into the Situation Room. 107 questions have been asked of the personnel in this section, and 96 answers have been given.

4. The personnel of the Situation Room consist of one enlisted man, Non-commissioned Officer in Charge of the Section, and 11 civilians. Generally, the personnel in this section work on the day shift, although occasionally one person works swing or graveyard on a security shift.

5. The Situation Room is located in Wing 3, second floor, Operations "B". Because the sections of Information and Liaison Branch are being shifted at the present time, a floor plan of the Situation Room is not included. The space in this section is adequate, although for security reasons, similarly located space in the headhouse with locking doors would prove more satisfactory. The location of this section is convenient for contact with other sections, although because of the close liaison maintained between this section and the Geographical Unit of the Information Section, it would seem advisable to combine both units. TAB K

6. The lighting in the Situation Room is adequate.

7. Files.

a. The following files are maintained in the Situation Room:

(1) Files of allied and enemy Order of Battle to assist in work on panels.

(2) Files of basic G-2 documents.

(3) Files of current diplomatic material for preparation of reports.

(4) Current Situation Room Report log of military events.

b. Material of a military interest is kept on file as long as its operational value lasts. Diplomatic material is maintained in the files for approximately 3 months.

c. The following functions and records have been discontinued within the last six months:

(1) European Theatre studies (Military).

(2) Far Eastern ship-sinking panel.

(3) Naval operations panel.

8. The Current Situation Room Report is the only report prepared by the Situation Room Section. Eight copies of this report are published, and the following is the distribution of these copies:

a. Commanding Officer (Mr. Friedman inclusive)

b. Chief, Intelligence Division

c. Chief, Language Branch (2 copies)

d. Chiefs, Military Cryptanalytic and Traffic Analysis and Control Branches (one copy forwarded)

e. Chief, General Cryptanalytic Branch

f. Chief, Information and Liaison Branch

g. Situation Room

9. It is believed that the Situation Room and the Geographic Unit, Information and Liaison Branch, should be located in close proximity so that the missions of both units can be exercised with a maximum of efficiency. A survey of space allocation is now under way, which will make possible the move of the Situation Room to space within close proximity of the Geographical Unit.

10. A use of great value of the Current Situation Room Reports is that in compiling the Monthly Production Trends Report in the Trends Research Unit, it is essential to illustrate the effect of the current situation in each country on the variations in traffic volume, as otherwise, fluctuations in traffic might be accredited to other causes, such as insufficient coverage. Carefully planned liaison has been effected between the Trends Research Unit and the Situation Room so that this information is given monthly for each system affected. At present the distribution of the report is very limited, but as selection of traffic is made on very low echelon levels, it is believed that consideration should be given to a much wider distribution of the report either in its present form or in a more condensed form; as it would appear essential that personnel selecting traffic for further processing should have as current a knowledge as possible of the situation in the countries affected.

CURRENT JAPANESE ARMY TRAFFIC AND ROUTING

UNIT	NATURE OF PROCESS
INTERCEPT STATIONS	TRAFFIC IS INTERCEPTED.
COMMUNICATIONS BRANCH, SPSIS TELEGRAPH UNIT, SPSIS-2A	TRAFFIC TABULATED BY INTERCEPT STATION - COUNTED AND RECORDED BY TIME LAG.
TRAFFIC ANALYSIS AND CONTROL BRANCH, SPSIS-4, TRAFFIC ROUTING SECTION, SPSIS-4B	TRAFFIC D.D. AND CIRCUIT EDITED; REVIEWED FOR MATERIAL CHARACTERISTICS TO ESTABLISH PRIORITIES; ROUTED.
MILITARY CRYPTANALYTIC BRANCH, SPSIS-2 RECEIVING AND IDENTIFICATION UNIT OF SPSIS-2A1	TRAFFIC PROCESSED FOR MACHINE-PART IDENTIFICATION; DUPLICATES ATTACHED, TRAFFIC CLASSIFIED AND LOGGED; IDENTIFIED FOR VERTICAL DUPLICATES, SELECTED FOR MACHINE PROCESSING.
TRAFFIC ANALYSIS AND CONTROL BRANCH, SPSIS-4 (TABLE LOCATED IN OPERATIONS UNIT)	COPIES STRIPPED (SEPARATED.) & COPIES DISTRIBUTED AS ILLUSTRATED BELOW.
MACHINE BRANCH, SPSIS CURRENT INTELLIGENCE PRODUCTION UNIT	CLASSIFIED TRAFFIC COMPLETELY MESSAGE PUNCHED. ALL CRITICAL JAPANESE ARMY INTERCEPTS ARE PREPARED IN CARDFORM. COPIES FOR FUTURE OPERATIONS, AND COPIES OF CERTAIN MESSAGES FOR ONE ROUTINE ARE PRODUCED.
MILITARY CRYPTANALYTIC BRANCH, SPSIS-2 KEY LIA DOC UNIT, SPSIS-2A4	CODES DISTRIBUTED TO SPSIS-1 SCANNING UNITS LOCATED IN GROUND, AIR, WATER SERVICES OF SPSIS-2. CODE INFORMATION CARDING FURNISHED TO SPECIAL SPSIS-2A3 UNIT, WITH ASSIGNED SPSIS-1 TRANSLATORS, FOR EXPLOITATION.
MILITARY CRYPTANALYTIC BRANCH, SPSIS-2 AIR, GROUND WATER SECTIONS, SPSIS-2B, F, G,	MESSAGES SCANNED BY SPSIS-1 SCANNING UNITS, PRIORITIES ASSIGNED. MESSAGES OF EMINENT INTELLIGENCE HAND-CARRIED TO SPSIS-1, ARE TRANSLATED, AND TELETYPED IMMEDIATELY TO G-2 , THEN RETURNED TO SPECIAL ROUTING. G-2 ADVISORS ARE WITH EACH SCANNING GROUP.
MILITARY CRYPTANALYTIC BRANCH, SPSIS-2 ARCHIVES SECTION, SPSIS-2D	FILE IS PLACED ON MESSAGES SELECTED FOR TRANSLATION. MESSAGES FURNISHED TO JAPANESE ARMY TRANSLATION SECTION, LACKMAN BRANCH.
LACKMAN BRANCH, SPSIS-1 ROUTING SUBSECTION, SPSIS-1B1	ALL JAPANESE ARMY MESSAGES ARE LOGGED AND ROUTED.
LACKMAN BRANCH, SPSIS-1, ARMY ADMINISTRATIVE, WATER TRANSPORT, AIR SUBSECTIONS, SPSIS-1B2, E, A	CODES CLASSIFIED BY BOOKMARKERS FOR RECOVERED VALUES; TRANSLATED; CHECKED; FINAL CHECKED; INDEXED AND FORWARDED. A SMALL UNIT FIRST SPSIS-2 PROCESS MESSAGES THAT AMOUNT OF PHASE. G-2 ADVISORS WITH TRANSLATORS.
TRAFFIC ANALYSIS AND CONTROL BRANCH, SPSIS-4 SMALL UNIT ATTACHED TO LACKMAN BRANCH	MESSAGES RECEIVE FINAL D.D. EDITING.
LACKMAN BRANCH SPSIS-1 ROUTING SECTION, SPSIS-1B1	MESSAGES ASSIGNED A J NUMBER, ESSENTIALLY CHECKED AND LOGGED OUT.
INFORMATION AND LIAISON BRANCH, SPSIS BULLETIN SECTION SPSIS-6	MESSAGES LOGGED IN; TYPED ON BULLETIN; PROOFREAD BY EDITORS. CURRENCY IS RECORDED TO ROUTING SECTION OF SPSIS-1 FOR FILE. BULLETIN CARBON IS REPRODUCED IN BULLETIN BOOK OF BULLETIN SECTION; BULLETIN DISTRIBUTED.
MACHINE BRANCH, SPSIS TRAFFIC ANALYSIS KEY PUNCH UNIT	MID BASIC CARDS ARE PUNCHED INITIALLY, CONTAIN ALL PERTINENT ROUTING INFORMATION AND CERTAIN MATERIAL GROUPS. TRAILER CARDS PREPARED FOR LOCO ACT'S AND D.D'S. PURPOSE OF UNIT IS TO PRODUCE A DECK OF INFORMATION ON ALL TRAFFIC SO THAT CARDS MAY BE PREPARED FOR CRYPTANALYTIC AND TRAFFIC ANALYSIS STUDIES.
MILITARY CRYPTANALYTIC BRANCH, SPSIS-2 INDEXES SUBSECTION, SPSIS-2C4	ALL TRAFFIC IS FILED BY NAMES.
TRAFFIC ANALYSIS AND CONTROL BRANCH, SPSIS-4 AREA SPECIALISTS SUBSECTION, SPSIS-4C2	TRAFFIC IS PROCESSED FOR STUDIES OF THE WORK OF THE AREA SPECIALISTS SUBSECTION. MESSAGES ARE SENT TO THE CORRESPONDING SUBSECTIONS IN THE AIR, GROUND, AND WATER SECTIONS, SPSIS-2.
TRAFFIC ANALYSIS AND CONTROL BRANCH, SPSIS-4 TRAFFIC PROBLEMS UNIT OF SPSIS-4C2	ALL CURRENTLY AVAILABLE MATERIAL, ROUTING INDICES, AS TYPE HANDLED BY UNIT REVISIONS EXTERNAL CHARACTERISTICS. ADVISES SPSIS-4B OF PRIORITIES.

Extra Copy Destroyed