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Signal Corps Technical Intelligence, a brief history

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SIGNAL CORPS TRAINING CENTER
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STC-TD

12 Aug 1949

SUBJECT: Monograph Signal Corps Technical Intelligence History

TO: Chief, Intelligence and Security Branch
Plans and Operations Division
Office, Chief Signal Officer
Washington, D. C.

1. Inclosed is a copy of subject Monograph Captain Chester A. Hall, Jr., Signal Corps, asked me to forward to your office.

2. I believe it to be a very valuable History of the Technical Intelligence functions of the Office, Chief Signal Officer and his Field Agencies during the period covered, and cannot concur too heartily in the recommendations Captain Hall has made.

HAROLD F. OSBORNE
Lt Col, Sig C
Chief, Training Division

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MONOGRAPH

SIGNAL CORPS TECHNICAL INTELLIGENCE
A BRIEF HISTORY,
1940 - 1948,

22 July 1949

Prepared by:

CHESTER A. HALL, Jr.
Captain, Signal Corps

ACKNOWLEDGEMENT

The cooperation and assistance that has been extended the author in the preparation of this monograph has made its presentation possible. In addition to the studies and monographs that have been prepared on some of the specific phases of Signal Corps Technical Intelligence, the personal experiences and knowledge of many of the officers who have served in this field have been invaluable.

The courtesy, kindness, and suggestions of the following named officers are worthy of especial note, and to them, I offer my sincere appreciation for their contributions:

Colonel Glen H. Palmer - Chief, Intelligence and Security Branch, OCSigO

Lt Colonel Harold F. Osborne - Former Chief, Intelligence and Security Branch, OCSigO

Lt Colonel J. R. Kimmell, Jr. - Staff and Faculty, The Signal School
Assistant Faculty Advisor

Major W. C. Cupples - Staff and Faculty, The Signal School
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Captain R. W. Strunk - Formerly with Intelligence and Security Branch, OCSigO

Mr. Noel J. Granger - Intelligence Specialist, OCSigO

Mr. Lionel L. Hood - Intelligence Specialist, OCSigO

Mrs. A. V. Rose - Intelligence Specialist, OCSigO

add Rio Files

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INTRODUCTION

Since time immemorial, knowledge of an enemy's war potential, his specific resources and materiel, and his battle plans have been the object of much interest to an antagonist. At times, the knowledge of some, or all of these details has spelled success or failure; and in full realization of this fact, nations have exerted a great amount of time and effort to ascertaining pertinent facts about their enemies in time of war, and about their potential enemies in time of peace. The United States of America has been no exception to this policy, although, as in any other republic of democratic peoples, our love for the fair and "above board" method of transacting business has led us to refrain from adopting the wholesale covert methods of collecting information that have been successful for other nations during the past centuries. Be this as it may, the struggle for survival has led us to adopt this and other methods of obtaining information about our enemies. No better, or more recent, example of this is the Office of Strategic Services during World War II.

As the world has advanced scientifically and technologically, it has become apparent that many and more complex methods of obtaining information about the enemy, other than overt methods, must be devised and pursued to insure the preparedness of this nation against possible aggressors. This fact was brought home to the armed forces just before and during the outbreak of World War II; and prodigious effort was exerted to meet the challenge. It is not the intent or purpose of the author to delve at any great length into many of the intelligence agencies, or their modus operandi, but rather, to set forth as clearly, and as simply

as possible, the beginning and growth of technical intelligence in the Signal Corps; its activities during the war in the various theaters of operations; its post war activities and its future in the Signal Corps as it appears at the time of writing. In order to present this material clearly, Chapter I has been devoted to background material that, it is believed, every officer in the Army should know in order to stay abreast of the current intelligence picture. No attempt has been made to deal with the various forms of intelligence that are discussed in Chapter I in any other manner than a brief, cursory examination of their major features. In fact, the broadest general statements have been made concerning them, because as with many other fields of interest, set definitions of terms are subject to change, but if a fundamental knowledge of the subject is obtained, it will remain valuable to the reader even though exact definition and terminology undergo change.

In the succeeding pages, the author hopes to present, in chronological order, the inception and growth of technical intelligence in the Signal Corps. Those pages dealing with the war time operation of technical intelligence are extremely broad and merely present the overall picture; as detailed theses on these operations, in the field, as well as in staff actions, have been written by various authors. (See bibliography). The history then dwells on the transition period at the end of World War II, and progresses to the actions and implementations of the past four years operation. In addition to the information contained in the documents listed in the bibliography, the author has based his work on personal experience. This experience includes training with one of the first three Enemy Equipment Intelligence Teams, service with this unit in the European

Theater, and some thirty-eight months staff duty with the Intelligence and Security Branch, OCSigO. Although the bibliography is quite lengthy, it is offered as an index to all known written documents on the field of Signal Corps Technical Intelligence. If information is available as to additions to this list, notification should be made to:

Intelligence & Security Branch (SIGIS)
Signal Plans and Operations Division
Office of the Chief Signal Officer
Washington 25, D. C.

Chapter I

GENERAL

In order to appreciate properly the history of Signal Corps Technical Intelligence, one must have a broad purview of intelligence, its definitions, its many ramifications, and its presently accepted definitions of scope with respect to fields of interest and delimitations of responsibility.

INTELLIGENCE

Intelligence, per se, is information that has been carefully scrutinized and collated with other information on a subject and when presented as intelligence for its users, represents as nearly as possible the most correct data about a given subject or field.

Many misconceptions exist about the field of intelligence. Some confuse such terms as Intelligence, Strategic Intelligence, Tactical Intelligence, Counterintelligence, Signal Intelligence, Technical Intelligence, etc., whereas a logical perusal of the facts and accepted definitions will clarify this matter. To this end, then, let us examine the field of intelligence and see where and how the various facets apply to the picture as a whole. Let us accept the fact that the broad term, intelligence, encompasses all of the minor fields with their different types of fields of interest and examine each in turn.

STRATEGIC INTELLIGENCE

Strategic intelligence has to do with items that have application in the over all strategic planning of operations or in the promulgation

of strategic estimates of foreign countries. Such items as economical conditions, political factors, geography, topography, transportation, communications, race of the people concerned, their national h bits and customs, health, climate, etc., are all of vital importance to the field of strategic intelligence.

Thus, we can say, very generally, that strategic intelligence concerns itself with items that are general in nature and very seldom delve into minute detail. There are, naturally, exceptions to this, in that many occasions call for the most particular examination of minute detail in order to present a broad strategic picture, but the point in question to be resolved is an appreciation of the meaning of the term.

TACTICAL INTELLIGENCE

Tactical or Operational Intelligence, by the same line of reasoning can be considered to be intelligence that has its most important and immediate application to the tactical operation. It is most frequently detailed in nature and attempts to place in the hands of the user the information that will assist him in the immediate prosecution of the tactical endeavor.

COUNTERINTELLIGENCE

Counterintelligence, the one term, incidentally, that is most often confused with intelligence, has to do with the methods and procedures adopted to nullify or render ineffective the efforts of a foreign country to obtain items of intelligence about our own nation. Questions of security of classified documents and their compromise, the examination of persons employed by the military, the physical security of military

installations against sabotage, etc., are but a few of the many items dealt with under the heading of counterintelligence.

DOMESTIC INFORMATION

After a general discussion of these broad divisions of intelligence, it is advisable to consider that information of our own nation is also of interest to intelligence agencies. When information of this nature is evaluated and correlated, it becomes known as domestic information (not intelligence) and endeavors to present the facts concerning our own country that are needed by the military for planning purposes. This may seem rather startling at first examination, but it is true that the proper collection and collation of information about our own country is of as much concern at the time of writing as is intelligence about any other foreign nation.

SIGNAL INTELLIGENCE

To turn now to the subjects that, to signal officers, will be of more immediate concern. Signal intelligence, as defined, is intelligence derived through the media of communications. Radio intercept, solution of enemy codes and ciphers, communications security, preparation of codes and ciphers for our own use, traffic analysis and direction finding, to name but a few, convey the mission and responsibilities, in part, of signal intelligence. The field of responsibility having to do with countermeasures taken against an enemy attempting to obtain signal intelligence from our own communications is another question and does not fall, at the present time, within the accepted definition of responsibilities of signal intelligence. Signal intelligence is, in brief, intelligence obtained from, and by means of, communication media, and the measures taken to prevent loss of information through this media by enforcing proper communications security precautions.

TECHNICAL INTELLIGENCE

Technical intelligence is exactly what the name implies - intelligence concerning technical information about foreign equipments. This definition is, of course, very broad, and at present writing, has been defined to include (for signal technical intelligence) production, storage, issue, maintenance, supply, raw materials, use, technical characteristics and organization of using agencies of all foreign armies, to include tactical operation, capabilities and limitations. All technical and administrative data about foreign commercial communications is also within its purview.

If we, then, consider strategic and tactical intelligence as the two broad end products that are most generally used, it can be seen that technical intelligence, signal intelligence, photographic intelligence and other defined fields of intelligence can, either separately or combined, furnish either tactical or strategic intelligence, depending to a large extent on the amount of detail incorporated, or the desired use. The same general conclusions can be drawn about domestic information as have been drawn about intelligence. Counterintelligence, of course, has the responsibility for preventing compromise of either intelligence about foreign countries or domestic information about the United States.

In brief summary, it is possible to see that, through the proper collection, evaluation and dissemination of information about all foreign countries, and the necessary collection, compilation and dissemination of domestic information, the agency having national responsibility for intelligence can provide the vitally needed conclusions as to the state of a foreign country's potential for war, as well as the ability of the United States to wage war.

Chapter II

PRE-WAR SIGNAL CORPS TECHNICAL INTELLIGENCE

Prior to July 1940, no written evidence exists as to activity in this field in the Signal Corps. On 22 July 1940, however, the tenuous thread of intelligence responsibility made its first appearance in the form of FM 30-15, "Military Intelligence", Section V, paragraphs 29 and 30.

In this publication, due cognizance was given to the fact that new or improved weapons, types of ammunition, or other materiel utilized by the enemy would have an influence upon tactics and the course of development or improvement of our own means of defense or attack. Therefore, provision was made for the collection, assembly and test of new equipment or materiel encountered in the course of operations. The delineation of responsibility to implement these actions, however, was very broad, and although placing the responsibility uniquely, no guidance was offered in the methods to be employed. In brief, it was decided that the collection and study of captured equipment and materiel was an intelligence function of the supply arms and services. Appropriate specialists of these supply arms and services in the various echelons of command were to examine captured materiel for new or improved types, and were to send selected samples of these equipments or materiel to the communications zone or the Zone of the Interior for further study and test.

Although this information would seem to have placed certain responsibilities on the Chief Signal Officer, no evidence is available

in written form, nor is there any verbal information from officers and key civilians on duty at this time with the Office of the Chief Signal Officer, indicating that any action was taken by the Signal Corps until March of 1942.

On 17 March 1942, the recently expanded and reorganized Army Service Forces, requested, through its Training Section, that the Chief Signal Officer edit a proposed draft of the Signal Corps manual FM 11-35, "Signal Corps Intelligence". This proposed draft that was submitted for editing evidently took cognizance of the responsibilities outlined in FM 30-15, for it proposed that the Theater Chief Signal Officers be relieved of the responsibilities outlined in FM 30-15, and that personnel attached to Corps should be provided to perform these functions.

At approximately this same period (15 April 1942), the Adjutant General requested all of the technical services to submit a Field Manual in which special emphasis would be given to charging a specific agency within the technical service with the responsibility of acquiring the necessary knowledge, parts and other equipment for restoring captured unserviceable material to service.

The two parallel requests, supra, were the subject of extensive staff implementation by the OCSigO, and resulted in the publishing of FM 11-35 (2 September 1942) containing a section concerning policy, use, methods of operation, and general information about an "Enemy Equipment Identification Service" (EEIS).

Before continuing on the Enemy Equipment Identification Service,

it would be well to point out that during the months of May and June 1942, action was completed on the establishment of an Enemy Equipment Identification Service Staff Section in the Office of the Chief Signal Officer. The service was placed under the Statistics and Reference Branch of Communication Coordination Division, and consisted of a recommended allotment of five (5) officers and twenty-six (26) civilians, although, according to the sources available, this allotment was never realized during the pre-war or operational phase of the service.

Thus we find the initial phase of the birth of technical intelligence in the Signal Corps fairly well completed by September 1942, with at least a staff section organized in the OCSigO, and a broad general policy delineated in FM 11-35, "Signal Corps Intelligence". This manual, incidentally, not only contained a chapter on the Enemy Equipment Identification Service (Chapter 4), but dealt fully with Signal Intelligence, the responsibility of the then known Signal Intelligence Service of the Signal Corps; later to become the Army Security Agency of the Director of Intelligence, GSUSA, Department of the Army.

Slightly overlapping this period and extending until approximately August 1943, many actions occurred, staff studies completed, conferences held, etc., all with the ultimate purpose of providing the necessary personnel, properly trained, with staff support adequate to discharge the Chief Signal Officer's responsibilities in this field. To go into these actions alone, would require some twenty-five pages of accounts of action and counter-action, therefore, it has been decided to select the milestones of this period to point up its development, and let those who

desire, peruse the detailed documents on this period at their leisure. (See bibliography - Pre-operational Phase)

Although the EEIS had been allocated five officers and twenty-six civilians, by the end of November 1942, it had only one officer and one civilian, although repeated requests had been made to rectify this situation. With respect to personnel for the field teams, a request was made in May 1942 for the assignment of sufficient personnel to form the field teams required by FM 11-35. It was not until eight months later that four officers were assigned to the Military Intelligence Training Center, Camp Ritchie, Maryland, to take the Enemy Equipment Identification Course. This situation was finally corrected in June 1943, when fifteen officers and eighteen enlisted men were assigned to this course to ultimately provide three EEIS teams for the various theaters. It should be noted that it required from July 1940 until August 1943 to provide EEIS teams, three in number, who were trained and qualified to take the field and engage in the collection and analysis of captured enemy signal equipment.

During this period, many letters and directives were received by the Signal Corps relative to the methods of collection, evacuation, preliminary and detailed analysis of equipments, production of manuals on the equipment, production and dissemination of reports, etc. Examples of efficient technical intelligence operations that were referred to in 1942 were the methods of operation of the German Technical Intelligence organization that had been operating since 1939; and an example of the type intelligence handbook on equipments needed by our forces was offered in the form of "V Pamoschi Komandiri Svazisti", (An Aid to Signal Corps Commanders), third edition, State Publishing House of the USSR, 1942, Manual on Radio Stations of the German Army. This, in 1942.

This period also saw the promulgation of War Department Training Circular 81, which stated the objectives to be achieved by the analysis of captured equipment. These objectives were elaborated upon and later appeared in the 7 December 1943 edition of FM 30-15, "Military Intelligence, Examination of Enemy Personnel, Repatriots, Documents, and Materiel". Various letters referring to the classification of equipments, methods of operation, modifications of existing directives and amplifying directives were published.

Although it is impossible to draw a line of demarkation between the pre-operational phase and the operational phase, it has been decided to close the account of the pre-operational phase in August 1943, and proceed to the war time operational phase which was destined to last until September 1945.

As a brief transitional summary, the status quo of signal technical intelligence in August of 1943 was as follows:

a. The Enemy Equipment Identification Service staff section had been established, and although faced with many problems, had effected various implementations that were to eventually make possible the successful operations of the Signal Corps Technical Intelligence agencies during the war.

b. Fifteen officers and eighteen enlisted men had completed the Technical Intelligence Course of Class 9, Military Intelligence Training Center, Camp Ritchie, Maryland, and were undergoing unit training at Camp Charles Wood, Fort Monmouth, New Jersey.

Chapter III

SIGNAL CORPS TECHNICAL INTELLIGENCE DURING WORLD WAR II

As has been briefly mentioned in the introduction, detailed papers have been prepared upon the various activities of technical intelligence during World War II, both in the field in the various theaters and in the OCSigO. Namely, Lt Colonel E. E. Sullo wrote on "Operations of the Intelligence Branch, OCSigO, During World War II"; Major F. M. Davis wrote on "Scientific Research in Enemy Territory" with emphasis on operations in the Pacific area, and Captain Robert W. Strunk prepared "The Signal Corps Enemy Equipment Intelligence Service" with especial emphasis on the European Theater of Operation. However, to achieve the purpose of this paper, i.e. to provide a history of technical intelligence in the Signal Corps, it is believed necessary that the major points of interest be again covered, both for the sake of continuity and for the purpose of providing, in one paper, a history on this field. This is not to be construed as an apology for the presentation, but rather, to emphasize the fact that, should any one particular phase of this period be of interest, material is available that traces these operations in great detail.

The three teams that were undergoing unit training at Camp Charles Wood were rounding out such phases of their work as Enemy Identification and Operations, Enemy Radio Direction Finding, Wire Surveillance, Enemy intercept, Jamming and anti-jamming and detailed examination of samples of enemy equipment, to name but a few. After completion of this training the three teams were ordered to the European, the Pacific and the Asiatic theaters, respectively.

After several changes of unit designation, these first three teams were finally established as Teams 2 (Europe), 3 (Pacific), and 4 (Asiatic).

Before continuing with the operations in these theaters, it is necessary to point out that in November of 1943, the 849th Signal Intelligence Service was organized in the North African Theater of Operations and later served in the Mediterranean Theater of Operations. A portion of this organization was known as the Communications Intelligence Section and subsequently was reorganized under the same table of organization as Teams 2, 3 and 4, and was designated Team 1.

Thus, by December of 1943, four MEIS Teams were in the field, actively engaged in either preparatory work for the invasion of Europe, or in combat operations in the other three theaters of operation. Due to the different operations to be discussed and the wide geographical separation, it has been decided to examine these operations separately, according to theater, and within each theater, in chronological order. In addition, the activities of the Intelligence Branch, OCSigO, will be considered.

Staff Activities of the Intelligence Branch, OCSigO

The Intelligence Branch had the responsibility for coordination of intelligence matters with other government agencies; collection, evaluation and dissemination of technical and military intelligence of concern to the Signal Corps; preparation of telecommunications surveys of foreign countries; preparation and dissemination of analyses, based upon research, of all information concerning military signal equipment of all foreign

armies; staff supervision over security, including internal security, intelligence and counterintelligence activities in the OCSigO and in Signal Corps field installations; supervision of direct exchange of technical information with foreign nationals; and the arranging of clearances for foreign nationals to visit Signal Corps establishments and private plants; reviewing material prepared for public release for conformance with security regulations; supervision of declassification of documents in the OCSigO, and coordination of the declassification of documents originating outside the OCSigO; exercising staff supervision over captured signal equipment returned to the United States for intelligence purposes, staff supervision over the organization, training, and assignment of Enemy Equipment Intelligence Teams, and technical supervision through the Theater Commander of the technical operation of these teams.

The Intelligence Branch, in a word, was the responsible staff agency for all intelligence responsibilities of the Chief Signal Officer with the one exception of the Signal Intelligence Service, that operated directly under the Chief Signal Officer.

A close analysis of the above functions will show that they can be simplified into two groups, i.e. Counterintelligence (including security) and Technical Intelligence. The exchange of information, security matters, arrangements for foreign visitors, reviewing material intended for publication and declassification of documents can all be grouped under counterintelligence.

The supervision of the field EEIS Teams, their organization training and assignment, the receipt and disposition of captured signal equipment, the preparations of studies and evaluations of these equipments, the further collection of all types of communications information and the

promulgation of intelligence therefrom, are technical intelligence and follows the pattern peculiar to any intelligence effort - that of collection, evaluation, collation, interpretation and the dissemination of the finished intelligence.

The Intelligence Branch discharged these responsibilities to the best of its ability, always keeping in mind the lack of understanding about intelligence that was prevalent at this time, and the inevitable shortage of funds and personnel. When all factors have been considered, and the results evaluated, it can be said that the operation of the staff portion of the signal technical intelligence effort was successful. The Intelligence Branch trained, organized and assigned ten EEIS Teams during the war, and supported their field operation from the staff viewpoint.

The original intention of the Chief Signal Officer was to place these teams in the theaters on a temporary duty status, retain direct control of their activities, and possibly rotate the teams to the Zone of the Interior periodically. Although some technical supervision was actually obtained, the teams were, in fact, assigned to the theaters as casuals, and, according to the theater of operation where the team was engaged, progressed satisfactorily or were broken up and used for other tasks. These points are brought out in the discussion of the theaters below. Monthly information letters were disseminated to all the teams in the field, and many excellent reports and resulting intelligence were promulgated. For specific examples of the results and achievements obtained, see Appendix 1.

The Intelligence Branch underwent many organizational changes during the period August 1943 to September 1945, but essentially, the

functional organization was similar to that contained in Appendix 2.

The receipt and disposition of captured signal equipment was originally discharged by personnel of the Intelligence and Security Branch, but by December of 1944, the amounts of equipment and labor involved necessitated the establishment of the Captured Equipment Section of the Holabird Signal Depot. This section received, catalogued, and analyzed the returned signal equipment and expedited the flow of this equipment to the laboratories for further analysis.

The promulgation of studies about foreign communication facilities possibly suffered more than the other functions herein discussed, but due to the lack of personnel and funds, very few studies were actually completed during this period. Handbooks on foreign military signal equipments were, however, produced in acceptable quantities, and tips and training aids for the EEIS Teams in the field were successfully distributed. By VJ Day, September 1945, the Intelligence Branch was concerned with the transitional period from war to peace time operation, and was destined to become the leading intelligence agency in the Signal Corps during the post war period.

PACIFIC AREA OPERATIONS

As in any military organization, operations will differ with different organizations of the same type, and will also differ in operating procedure when operating under different commanders. In this respect, EEIS Teams in the field were no exception. The Teams in the Pacific were not well received by the commanders concerned, their mission was not understood nor was their mission given wide publicity, and at times, their operations were hampered as a result of these facts. The trend in this area was

to consolidate the various technical intelligence teams into one unit and utilize them through a G-2 staff coordinator. This method has been held to be excellent for relatively small, isolated operations such as those in the Pacific, but, by the same adjudicator has been held to be totally unsuited for a large land mass operation. Specifically, in the Southwest Pacific Area, all technical intelligence personnel were placed on detached service with the 5250th Technical Intelligence Composite Company Separate (Provisional) for convenience of administrative control. All of the technical services were represented in this Company, and the organization was placed under general supervision of the Assistant Chief of Staff G-2, Hq, U. S. Army Services of Supply (USASOS), with each service under the technical supervision of the Chief of Service concerned. Further, the G-2 of Sixth Army was designated as Technical Intelligence Coordinator at Army level for those teams that were placed on TDy with Sixth Army for various operations. From the Army level, the teams were placed on further temporary duty with Task Forces as deemed necessary. At the conclusion of the operation, the team would return to Hq, USASOS, to complete reports and prepare for the next operation. The duties of the team in this area coincided with those of the European Area, and included such matters as advising the Chief of the Technical Service re enemy signal matters, intelligence training, issuance of reports, shipment of captured items, and the continuous collection, evaluation, analysis, and recovery of enemy equipment. (Appendix 3).

An Intelligence Service Technical Intelligence Depot was established as a receiving depot for captured equipment at Base F, and was operated under the S-2 of Base F. The Services had their rear echelon

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examination and analysis depots here, but were under technical control of the Chief of the Service concerned. (Appendix 3).

As an indication of the effort expended and accomplishments of the teams in this area, the teams participated in operations on Leyte, Iwo Jima, Okinawa, Saipan and Guam (subsequent to the combat operation). Very little information is available as to the minor changes that this area underwent, but it is known that in September 1945, the teams left the area and were returned to the United States where some of the members were interrogated by the OCSigO, and the other members were either demobilized or given other assignments.

CHINA-INDIA-BURMA AREA OPERATION

Information concerning the operations in the China-Burma-India area are very meager and consist, in the main, of two folders of team reports, in rather incomplete form (see bibliography). It is, however, known that MIS was in operation and covered most of the geographical area concerned in efforts to obtain samples of Japanese equipments for intelligence purposes. One officer and two enlisted men were sent from Headquarters, India Burma Theater, APO 885, to temporary duty in the China Theater, where they served in this area from January 1945 until September 1945. The results, in terms of intelligence material, were quite satisfactory, although limited in number and quantity.

EUROPEAN THEATER OPERATION

The European Theater was a typical example of a large land mass operation beginning with an amphibious assault and continuing through most of the phases of land warfare. The MIS Teams operating in this

theater were more numerous in number and, as a result of their operations against the Germans, can provide many lessons from the field as a working basis for future operations in this type of warfare.

The first MEIS Team (Team 2) arrived in the European Theater on 21 November 1943, and was subsequently established in the Signal Section, Headquarters, First U. S. Army Group, located at this time in Bryanston Square, London. As the first team in the theater, and with no precedent available, it fell to the lot of Team 2 to establish the necessary liaison, prepare the necessary command directives, compile and correlate the existing intelligence available from M. I. 8d, War Office; and, based upon these matters, consolidate a Standing Operating Procedure to utilize for its own operations, as well as to serve as a guide to the teams that were to follow in the Theater.

The Team was actively engaged in these matters until May 1944, when the Team, less the Commanding Officer, who stayed at FUSAG for liaison purposes, was attached to Headquarters, First Army, and further attached to the 165 Signal Photographic Company for administration and rations. This attachment remained in effect until the arrival of First Army on the beachhead. Team 2 participated in the assault landings in Normandy and operated with First Army until relieved by Team 10 in August 1944. Meanwhile Team 8 had arrived on the continent and had become operational coincident with Third Army's activation. Thus, during the initial pre-invasion planning, the MEIS was placed as indicated in Appendix 4. After D Day, their assignment and operation can be seen in Appendix 5. In August 1944, Team 8 was at Third Army, Team

10 was with First Army, and Team 2 had been assigned to 12th Army Group. Team 2's forward operating elements were attached to the Brest Task Force, and 12th Army Group "T" Force. (Appendix 6)

A short time later, Team 9 arrived in the Theater and was attached to Ninth Army Headquarters on the American left flank. After the Southern France invasion and the arrival of the Fifth and Seventh Armies from the Mediterranean, the formation of Sixth Army Group, and the assignment of the First French Army to Sixth Army Group, we find Team 11 assigned to Fifth Army and Team 2, split into several operating echelons, at 12th Army Group, 6th Army Group, 12th and 6th Army Group "T" Forces, and and 7th Army. (See Appendix 7) It was in this general manner that the EEIS operated until VE Day. The overall technical efforts of the teams were controlled by the Technical Liaison Division, Office of the Theater Chief Signal Officer.

It must be reiterated that this phase of the paper is intended to merely provide a reference to the major points of interest and to provide a reference source for those who are interested in the minute details of the EEIS operation during World War II. Thus, an examination of Appendices 4 through 7 will give in graphic form the location and, in general, the modus operandi of the EEIS Teams in Europe.

Chapter IV

POST WAR TRANSITION

The MIS Teams in the Pacific Area were either disbanded or returned to the Zone of the Interior for further interrogation. The 525Oth Technical Intelligence Composite Company (Separate) remained in operation, however, dealing with the post war intelligence problems that arose after the capitulation of Japan. Additional details of these operations and their extent have been omitted because of the security provisions that, at the time of writing, still exist.

The operations in the China-Burma-India Area also drew to a close at this time and the teams were either reassigned in the area, or were returned to the United States. No information is available as to any intelligence organization that was active in this area in the transitional period.

After VE Day in the European Theater, the MIS Teams on duty there (2, 8, 9, 10, 11) were busily engaged, each in its respective area (see Appendix 7), completing the exploitation of intelligence targets, expediting the evacuation of signal materials that were to be utilized by the occupation forces, and location and evacuation of scientific personnel to centers of interrogation. These personnel were to eventually become the ones evacuated to the Zone of the Interior under the PAPERCLIP project.

As this work was nearing completion, the teams were returned to the United States, some to be disbanded, and one or two to be further

trained and assigned to the Japanese theater for further operations against the Japanese. Fortunately, the timely arrival of VJ Day precluded this project. The Technical Liaison Division, Office of the Chief Signal Officer, continued to function, and was engaged in interrogation, evaluation and analysis of equipments that were still available, and cooperation with an organization that was formed to handle the post war phase of just such activities. This organization was known as Field Information Agency Technical (FIAT), and in addition to the above mentioned responsibilities, was engaged in the exploitation of German scientific resources for the benefit of American Industry as a whole. Again, the details of the operations of this organization are classified rather highly, and to delve into them too deeply is beyond the scope of this paper. Should its organization, mission, and functions be of further interest, they can be obtained from the Office of the Chief Signal Officer, Washington, D. C. by properly cleared personnel.

The specific field agencies of the Signal Corps that had been engaged in the collection, evaluation and analysis of captured signal equipment, then, by September 1945 had, on the whole, been dissolved and the personnel assigned to other duties.

During this period, the Intelligence and Security Branch, Office of the Chief Signal Officer, had undergone the same personnel changes that were common to other staff agencies, and was determinedly trying to withstand the onslaught of personnel reductions that were being ordered almost daily. Realizing full well that the peacetime responsibility of the Signal Corps in intelligence would be increased instead of decreased, every effort was made to stabilize a staff, but to little avail. As we

shall see in the following pages, it was not until 1947 that any success was met on this particular phase.

Thus, in September 1945, we find the field teams either completely disbanded or in the process of deactivation; the Staff section in the Office of the Chief Signal Officer and the Captured Equipment Section at Holabird as the only two active organizations in the Signal Corps concerned with technical intelligence.

Chapter V

POST WAR SIGNAL CORPS TECHNICAL INTELLIGENCE

The early part of 1946 was comparatively static in intelligence matters, the only activities being to complete the intelligence actions that were still pending from the operational phase. The organization of the Intelligence Branch was practically unchanged, although severe cuts in personnel had been experienced. (Appendix 8).

The Reference Section and EEIS Sections are the only two sections pertinent to the topic at hand, and it will be noticed that the section having staff supervision over EEIS Teams was a separate section from that engaged in collecting, evaluating, analyzing and disseminating technical intelligence, i.e., the Reference Section.

In April 1946, the quantity of signal equipment arriving at Holabird had diminished, and by July 1946, had dropped to the extent that the staff was discontinued, and the key personnel were transferred to the Office of the Chief Signal Officer, although the space (with the remaining equipment) was retained, and necessary examinations were made by personnel from the Intelligence Branch. At approximately this time, a minor organizational change took place, and the Communications Coordination Branch was combined with the Intelligence Branch to form the Intelligence and Communications Coordination Branch, again reflecting the diminishing size of the functional organization of the Office of the Chief Signal Officer. At this time, the technical intelligence responsibilities of the Chief Signal Officer were being implemented by the Reference Sub-section and JANIS Sub-section of the newly formed Intelligence Section of the Branch. The word JANIS requires a few words of explanation. In early 1946, the Joint

Chiefs of Staff (JCS), themselves undoubtedly feeling the economy pinch, had directed the Army and Navy to prepare pertinent portions of the Joint Army-Navy Intelligence Studies (JANIS). (Appendix 9). Until this time, the majority of these studies were prepared by the JISPB, with only a small portion being prepared by outside agencies. The JANIS Sub-section, composed of one civilian intelligence specialist, one research analyst, and one clerk, was organized to discharge the responsibility of preparing the pertinent signal portions of the various JANIS. Although unusually successful in meeting established deadlines, it is easy to see that three people were unable to do this monumental assignment. Seemingly rather unimportant, this situation marked the first attempt by any governmental agency to assume overall direction of the production of the vitally needed intelligence on foreign countries. The organization of the Branch at this time was as contained in Appendix 10.

On 31 December 1946, a directive was received from the Director of Intelligence, WDGS, directing the Chief Signal Officer to assume the responsibility for research and analysis of all information on foreign military signal communication equipments, while the ultimate responsibility for the collection of this information, as well as the general dissemination of finished intelligence, was to remain with the Intelligence Division, WDGS. This responsibility for the collection and dissemination, during war, was to be, of course, implemented by the various field agencies of subordinate headquarters. This, then, left the Signal Corps with two main guiding policies in the field of technical intelligence. One, a directive from the Joint Chiefs of Staff, directing the production of JANIS,

and now, a very broad directive to do research and analysis on all foreign military signal equipments.

The Director of Intelligence further stated in this directive that he would specify from time to time the form in which these analyses would appear. At this particular time, the main responsibility was to prepare the signal portions of the Strategic Intelligence Digests, published by the Department of the Army, and, as called upon, to produce short summaries of telecommunications in foreign countries in the form of Strategic Intelligence Estimates.

Before a summary of the status of responsibilities can be made for this period, one other major responsibility must be discussed. On 23 January 1947, as modified on 17 February 1947, the Adjutant General issued a directive at the request of the Director of Intelligence to the various technical services to prepare a Strategic Vulnerability Survey of the United States. It had become apparent by this time that very little information was available on the exact status of American telecommunications in a usable form, and what was possibly more important, the vulnerability coefficient of telecommunications was unknown. This, referring to the concepts developed in Chapter I, represents the very heart of domestic information as it pertains to signal communications.

In order to further develop the technical intelligence picture, let us, for a brief moment, summarize the general status as outlined above.

The Signal Corps, essentially with the organization as contained in Appendix 11, was responsible for the preparation of signal portions of the Joint Army-Navy Intelligence Studies; the Strategic Intelligence Digests and Strategic Intelligence Estimates; and the Strategic Vulnerability Survey. The JANIS were to be submitted to the Joint Chiefs of Staff, and the other studies to the Director of Intelligence, WDGS. The

first action was, obviously, to obtain the necessary personnel, properly qualified, and funds to implement the program. Without going into details of the staff actions that resulted suffice it to say, that after carrying the matter to the General Staff and the War Manpower Board, and eventually to the Signal Corps for the funds, an increase in personnel was authorized and the Signal Plans and Operations Division was reorganized. War plans were given to Operations Branch and it became the Operations and Planning Branch; Communications Liaison Branch remained the same; all intelligence functions were consolidated, and the Intelligence and Security Branch was formed with an allotment of five officers and eighteen civilians. (Appendix 12).

The functional plan that was decided on at this time, still remains in effect as far as division of responsibilities is concerned. Briefly, the security and intelligence functions are divided. Within the intelligence section is found a draftsman's section and a reference library serving the whole section; and operational personnel divided into geographical areas, each area having specialists in the different fields.

It has now become necessary to examine certain events that were occurring at the National Security Council level. When it was first conceived, an agency known as the National Intelligence Agency (NIA) was formed to guide the national intelligence policy. It utilized a group of operational personnel that was known as the Central Intelligence Group (CIG). When the National Security Act was passed, the above organization was abolished and a new one initiated. This agency, the Central Intelligence Agency (CIA) was formed and assumed all of the functions of the CIG and NIA.

This agency (CIA) has the responsibility for advising the National Security Council on intelligence matters and formulating policies with respect to intelligence for all government agencies. One of the first steps taken by the new organization was the abolition of JANIS, and the substitution of the National Intelligence Surveys (NIS). The NIS are designed to serve the purposes of all government agencies and all government agencies are contributing in one form or another to their promulgation. After due deliberation by special committees formed by representatives of Army, Navy, Air, and State Departments, the Signal Corps was selected to prepare strategic surveys on commercial communications systems and equipments, tactical surveys in much greater detail on these commercial facilities, and military surveys on the military systems and equipments. This fact, in itself, did not overly burden the newly formed Intelligence and Security Branch, but the number of surveys required by CIA by 1952 was absolutely impossible to achieve with the personnel at hand.

In order to keep matters in chronological order, it is sometimes necessary to deviate from one trend of exposition to another, but it is believed that the short summaries carried forward from time to time will enable the reader to follow the development rather closely. With this in mind, it is desired to point up an event made necessary by economy, that has had a far reaching effect on the field of technical intelligence in the Signal Corps. In April 1947, the Reference Section of the Intelligence and Security Branch was forced to move to Camp Evans, Belmar, New Jersey. This move placed the Signal Corps in the position of having its intelligence operations personnel in Washington and its reference intelligence library in New Jersey. Thus, when a study was to be initiated, the necessary

search and location of the required documents would be done by the library personnel and then forwarded to Washington, where the study would be prepared. A highly unsatisfactory research procedure, to say the least, resulted. The library, when it moved to Fort Monmouth, became known as the Signal Corps Intelligence Unit (SCIU) and in addition to the library, assumed the responsibility for translation, dissemination of documents within the Signal Corps, and disposition of captured enemy equipment, to name but a few. This unit is still located at Belmar at the time of writing.

To return to the actions made necessary by the requirements of the Central Intelligence Agency for numbers of studies before 1952, the Intelligence and Security Branch completed a study of these requirements and determined therefrom, the number of additional personnel and funds required to discharge these responsibilities. It was decided that twenty-six additional civilians and three additional officers would be required to accomplish the Signal Corps intelligence mission. This request for personnel, accompanied by the ever present staff study went forward in February 1948 and shortly thereafter, the necessary personnel were given to the Branch. It is one matter to obtain authorization for additional personnel, and quite another to locate and engage the personnel with the necessary qualifications and security clearances. This problem occupied the remainder of the year 1948, but by the end of the year, the majority of the positions had been filled, a tremendous training program was under way, and the actual intelligence studies were being produced.

To summarize these latest developments, then, we find the Intelligence and Security Branch, Office of the Chief Signal Officer, with an allotment

of approximately ten officers and sixty civilians organized to implement the intelligence responsibilities of the Chief Signal Officer, with its reference library (SCIU) in the field with an additional forty individuals. (Appendix 13). It must be realized that only the most important items of interest have been selected to point up the development of Technical Intelligence in the Signal Corps, and that the actions of several hundred people all over the world for a period of eight years would not only be extremely bulky, but tiresome to read, and very difficult to follow. It was the avowed purpose of the author to present a brief history of this new phase in the Signal Corps so that, in the future, it might serve not only as a guide to the major points of interest, but as an index to the written material in this field.

Chapter VI

CONCLUSION

For the first time in several years, the Signal Corps has fallen heir to a new field of endeavor. It is a field that has had no precedent in the history of the Signal Corps, and is one that is not only a science in itself, but is extremely valuable to the implementation of the overall signal mission. This paper is an attempt to present the milestones of the development of this field from its inception through the time when the author last had intimate contact with it, to serve as a fairly succint, convenient reference paper.

The compilation of the paper has required the collection, from many sources, of the written material available on this field, the careful analysis and collation necessary to present the facts in a chronological order, and the integration of the personal experience of the author as well as other officers that have had knowledge of signal technical intelligence.

Technical intelligence first received recognition in the Signal Corps just prior to the outbreak of World War II and suffered the personnel and budgetary complications that were common to all fields of endeavor in the Signal Corps. It grew to a size that enabled it to place intelligence teams in the field in every theater in the world, and, it is believed, successfully discharged its mission, even though that mission was never too clearly defined. During the post war period, the emphasis placed on intelligence by the Department of the Army found a cooperative attitude

in the Signal Corps, and we have seen the splendid growth and development of the agencies within the Signal Corps whose primary duty it is to implement the responsibilities given to the Chief Signal Officer in the fields of intelligence, counterintelligence and security.

What the future holds for the Signal Corps in its role of communications responsibilities cannot be specifically delineated, but whatever it may be, it is an established fact that technical intelligence will be an integral part of that future.

Chapter VII

RECOMMENDATIONS

As a result of the research completed on this paper, as well as some five years intimate contact with technical intelligence, various factors concerning technical intelligence operations have become evident. Some of these factors are well known and have been given cognizance by proper authority, others are not so well known, but are nevertheless most important. With the understanding that any recommendations contained herein constitute the considered conclusions of the author, and do not reflect official policy in any way, it has been decided to present them in the following order, i.e., those concerning interim peace time operations, followed by mobilization problems, and concluding with certain thoughts on operations in the field and staff during war.

During peace time, the collection of information is a jealously guarded prerogative of the Director of Intelligence, GSUSA, and the Signal Corps concerns itself only with the necessary production of intelligence, and the training and policy formulation that will enable it to discharge its staff and operating responsibilities during time of war.

Very little can be said about the production of intelligence by the Signal Corps. Many difficulties have arisen in the past and will arise in the future, but a sound, functional organization, staffed by well qualified personnel, can discharge this mission.

With respect to written doctrine and policies in effect, however, it is believed that proper provision for technical intelligence should, by all

means, be included in the following documents. These are listed individually with a short word of explanation for each.

Department of the Army Basic Plan - to include mention of the technical intelligence responsibilities of the technical services as an essential part of the EEI.

Mobilization Plan P-147 - to provide for the necessary mobilization of an adequate number of teams to implement the operational plans in effect.

FM 30-5 - "Combat Intelligence" - to provide the information concerning the mission and employment of Technical Service Intelligence Teams (TSIT) and the cooperation that will be required from the combat intelligence agencies.

FM 30-15 - "Examination of Enemy Personnel, Repatriates, Civilians, Documents, and Materiel" - to include a broad operating policy for TSIT. This is, at the present time being done, but action should be taken to insure its retention in current form.

FM 30-25 - "Military Intelligence - Counterintelligence" - to include the existence, mission and functions of TSIT.

FM 30-( ) - "Mission and Functions of the Army Security Agency" - to include the differentiation of responsibilities of the two fields of endeavor, and the necessary integration of the two systems in the field, as well as in the higher echelons.

FM 11-30 (Draft) ; "Signal Corps Intelligence" - to provide an overall comprehensive coverage of the field including all intelligence responsibilities, regardless of what particular staff section may be supervising any particular group of responsibilities.

FM 101-10 (Draft) - "Staff Officers Field Manual, Planning Data" - to include TO&E 11-500 cellular allocation for the Signal Corps Technical Intelligence Teams (SCTIT), so that when an operation is being planned, these teams will not be overlooked.

FM 100-11 - "Signal Communications Doctrine" - to include mention of the responsibility in intelligence to further aid in indoctrination of troops.

In addition to the above manuals, it is felt that a publication similar to "Brief Aids to the Collection of Electronic Intelligence", but greatly more detailed, be promulgated and widely disseminated to serve as technical intelligence Essential Elements of Information for the Signal Corps.

Reference to Chief of Staff Directive, 3 March 1947, "Intelligence Functions and Responsibilities" and OCSigO Serial No. 14, 8 May 1947, will reveal that the Signal Corps is responsible for the interim peace-time training of the necessary cadres for SCTIT to be mobilized, and for the necessary indoctrination of all personnel, from the lowest echelon to the highest, with the importance of intelligence.

Surveys conducted of the courses of instruction at the various signal schools indicate that military intelligence, per se, and Army Security Agency's responsibilities in signal intelligence and communications security are adequately covered, but the same surveys show a decided lack of orientation in the field of intelligence that, at the present time, is the only one in which a signal officer can expect to perform duty, i.e. technical intelligence. It is therefore recommended that a plan similar to that contained in Comment 1, 22 January 1948, from Chief, Intelligence and Security Branch to Chief, Personnel and Training Division, Office of the Chief Signal Officer, be adopted and vigorously pursued until the desired results are achieved.

If mobilization responsibilities are to be successfully met in technical intelligence, some training should be given to selected officers during the interim peace time to enable them to form cadres for the teams in question. Action was taken at one time to effect some three months training of reserve officers in this field, but the results are unknown to the author. This training, in any acceptable manner, should be given. In connection with this training, it is recommended that a technical manual be written in great detail showing the prospective teams the lessons learned from World War II, and, in so far as possible, a detailed

plan of operation and how best to discharge its responsibilities. Reference to Captain Robert W. Strunk's monograph, "The Signal Corps Enemy Equipment Intelligence Service", should provide assistance on this proposed manual.

As to operation during war time - if the Signal Corps Technical Intelligence Teams are placed on a unit (11-500) basis, if provision is made during the present period for their mobilization and cadre training, and if a manual has been written to provide them with a basis for operation, the majority of the difficulties that arose during World War II concerning the operations of the teams in that war, would be eliminated. The indoctrination of the army as a whole as to the importance of technical intelligence, or even of its existance, will also greatly aid the teams in the field.

From an examination of the facts presented, and not necessarily the conclusions drawn by the author, it is evident that the Signal Corps now has need for a career field of intelligence in its career management program. At present, this program does include a career field for Army Security Agency responsibilities, but under the present organizational structure, this has no bearing on the ordinary signal officer. As a final recommendation, then, it is recommended that a career field of intelligence be established in the Signal Corps, and that selected officers be allowed to specialize in this field for the period normal to other fields, e.g. communications, research and development, supply, etc.

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3. Directive : AISOS Mission
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5. Charter : Combined Industrial Intelligence Committee

OPERATIONAL PHASE

General

6. Letter : Orientation Issue of Captured Sig Fax Letter
7. File : Captured Sig Fax Letters
8. File : List of Radiograms re Technical Intelligence Teams
9. File : Technical Intelligence Coordination - Engineering and Technical Division, OCSigO
10. Report : Re Captain Whitehead's visit to the European Theater of Operations

India-Burma Area

11. File : India-Burma Theater January - December 1944
12. File : India-Burma Theater January - August 1945

China Area

13. File : China Theater February - September 1945

Mediterranean Area

14. File : EETS Detachment "1, AFHQ-NATO January - December 1944
15. File : EETS Detachment 1 MTO January 1945

European Area

16. File : EETS Detachment 2 ETO
17. File : EETS Detachment 8 ETO

UNCLASSIFIED

European Area (cont'd)

18. File : EEIS Detachment 9 ETO

19. File : EEIS Detachment 10 ETO

20. File : EEIS Detachment 11 ETO

21. File : EEIS ETO HQ April 1944 - January 1945

Southwest Pacific Area

22. File : 5250 Technical Intelligence Composite Company (Sep)

23. File : SWPA 1 Folder January 1944 - April 1945

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35. Files : Operational Report Files of the Signal Corps Intelligence Unit, Camp Evans, Belmar, New Jersey

APPENDIX 1

VALUES DERIVED FROM TECHNICAL INTELLIGENCE

The value of exploiting captured enemy equipment is rarely contested today, the samples reported and returned for further study (intelligence purposes), and the equipment and materiel employed for our use and/or cannibalization or salvage, have greatly benefitted the US Army and US Industry; certainly to an extent far beyond the expenditure of time, personnel, and money that went into the technical intelligence program in which EEIS played a major role. The value of advice rendered; plus effort, lives, and research saved; cannot be measured.

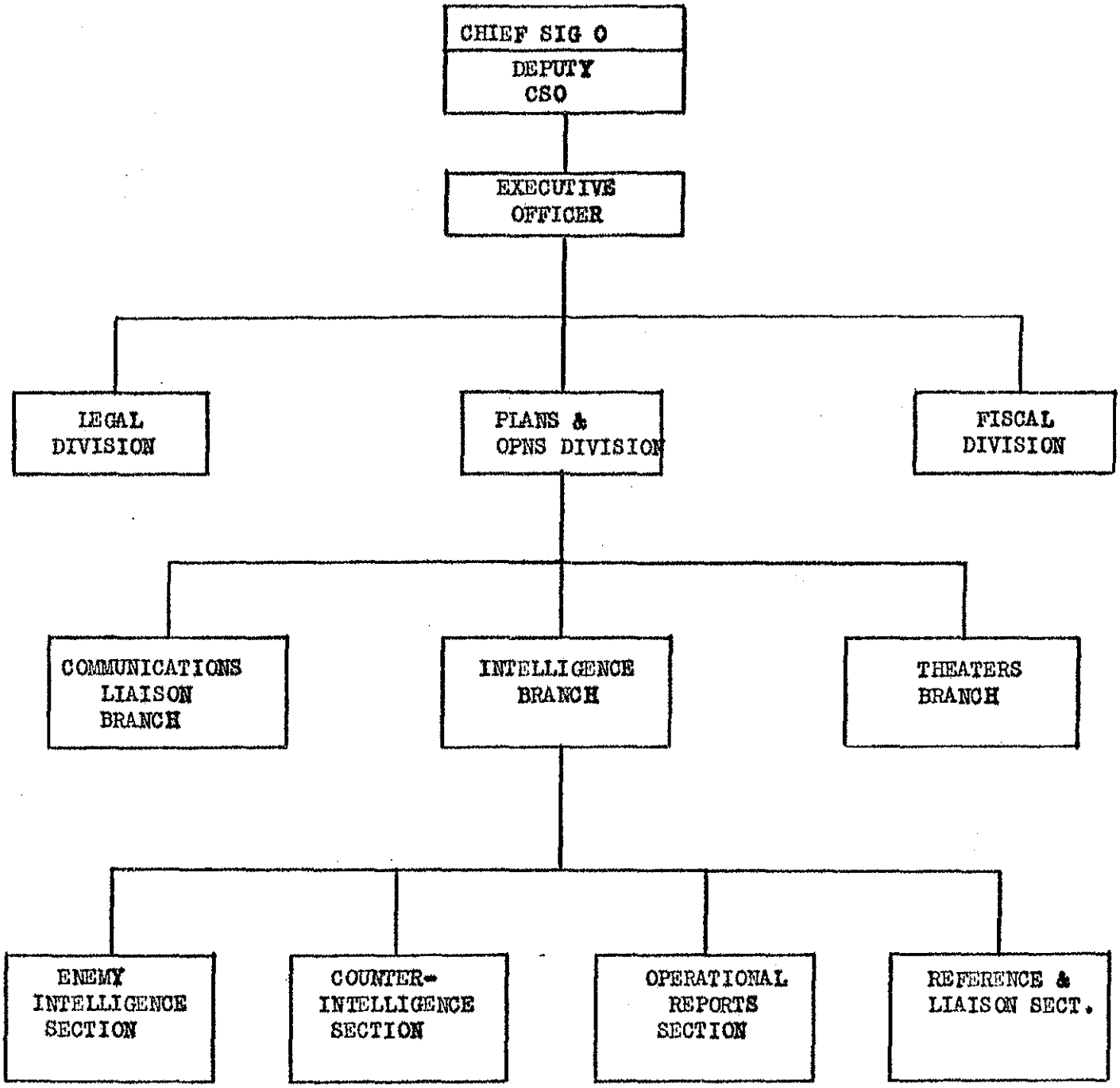
General George S. Patton saw fit to mention the US 90th Division's use of the German 120 mm mortar, and referred to it as an excellent weapon. The OCSigO, ETOUSA, recognizing the superiority of the German EP2a direction finder receiver over the SCR 503 arranged for production of these sets with which to equip US troops (See Appendix N). EEIS team personnel were continually advising US troops on the employment or non-employment of common equipments in general use by our forces; for example, on one occasion the author pointed out to a Division Signal Officer that the ground listening device (LE 35) of the Germans had a reported range of 3 kilometers, thus preventing the use of German single conductor wire which it was proposed to employ due to the short supply of US 2-conductor wire (W 110-B) at the time. EEIS Team 11 provided the French with instructions for use of a German mine-detector that had been captured in sufficient quantity to permit employment by

the French forces- - for which the French were duly grateful and rewarded the Team accordingly. Team 11 also received a commendation from Lt General A. M. Patch for work with Seventh Army (See Appendix O); this commendation, incidentally, also covered the tour of duty of Team 2 with Seventh Army after return from Sixth Army Group "T" Force. A list of topics pertaining to valuable items, compiled in the OCSigO, Department of the Army, April 1947, includes comments on telescoping antenna masts, steel tape antennas, infrared equipments, batteries, capacitors, rectifiers, magnetic tape recorders, inductances, power generators, etc., and indicates some of the values derived from captured equipments by laboratories and industry (See Appendix P, Tab 1). Additional points are supplied in "Scientific Research in Enemy Territory" - - two very interesting comments from this source note that German radio-relay equipment was being used by the Germans in Africa while our equivalent equipment was still in development - - also the extensive use made of German wire by armored divisions exerted influence over current armored division doctrine - - etc. (See Appendix P, Tab 2). Still other valuable outgrowths of technical intelligence work are pointed out in "Operation of the Intelligence Branch, OCSigO, During World War II." Extract comments on use of foreign facilities are included as Appendix Q.

EXTRACTED FROM: Monograph by Captain ROBERT W. SHUNK
"THE SIGNAL CORPS ENEMY EQUIPMENT INTELLIGENCE SERVICE"

APPENDIX 2

ORGANIZATION OF THE OCSigO



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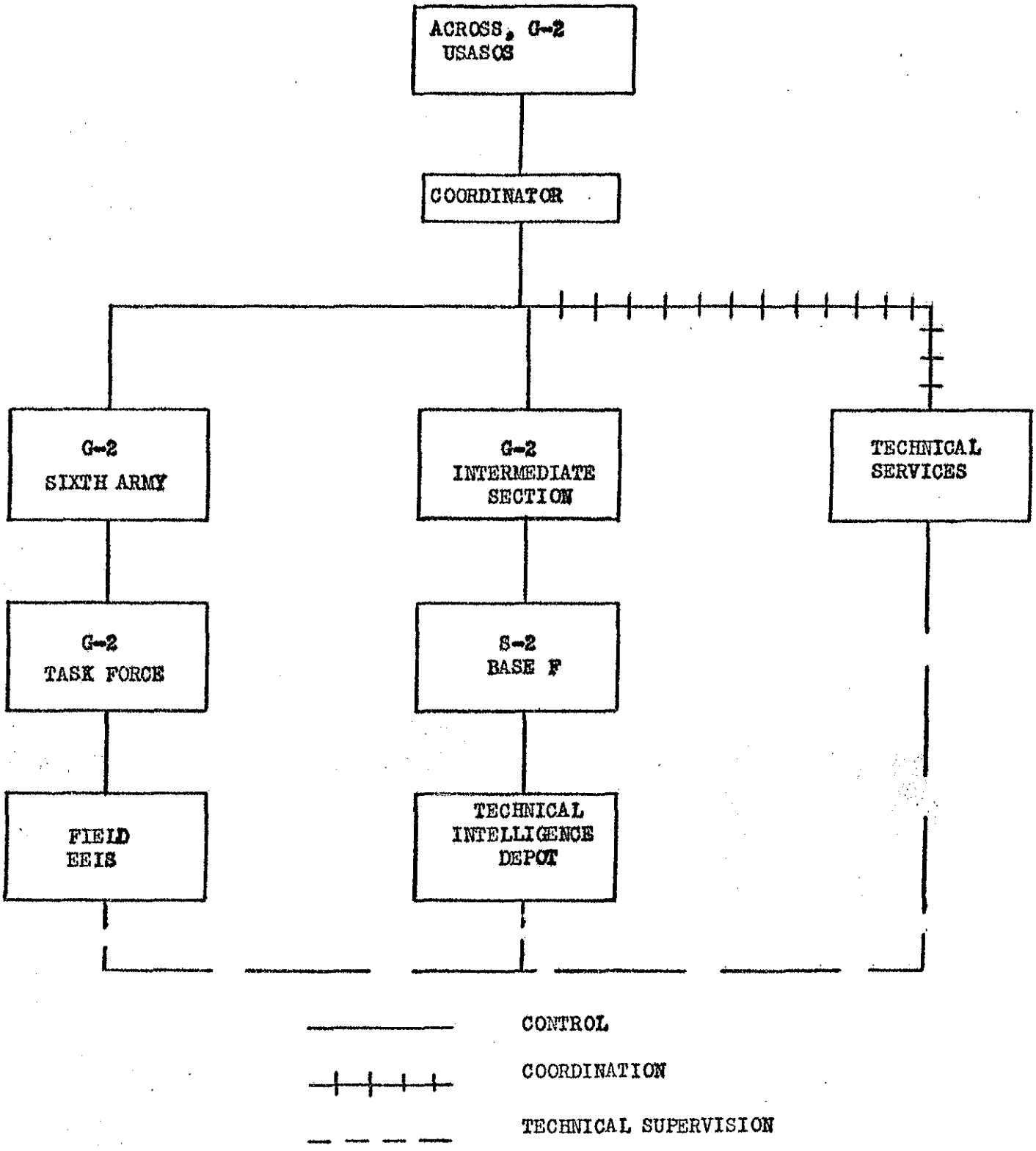
INTELLIGENCE ORGANIZATION - POA



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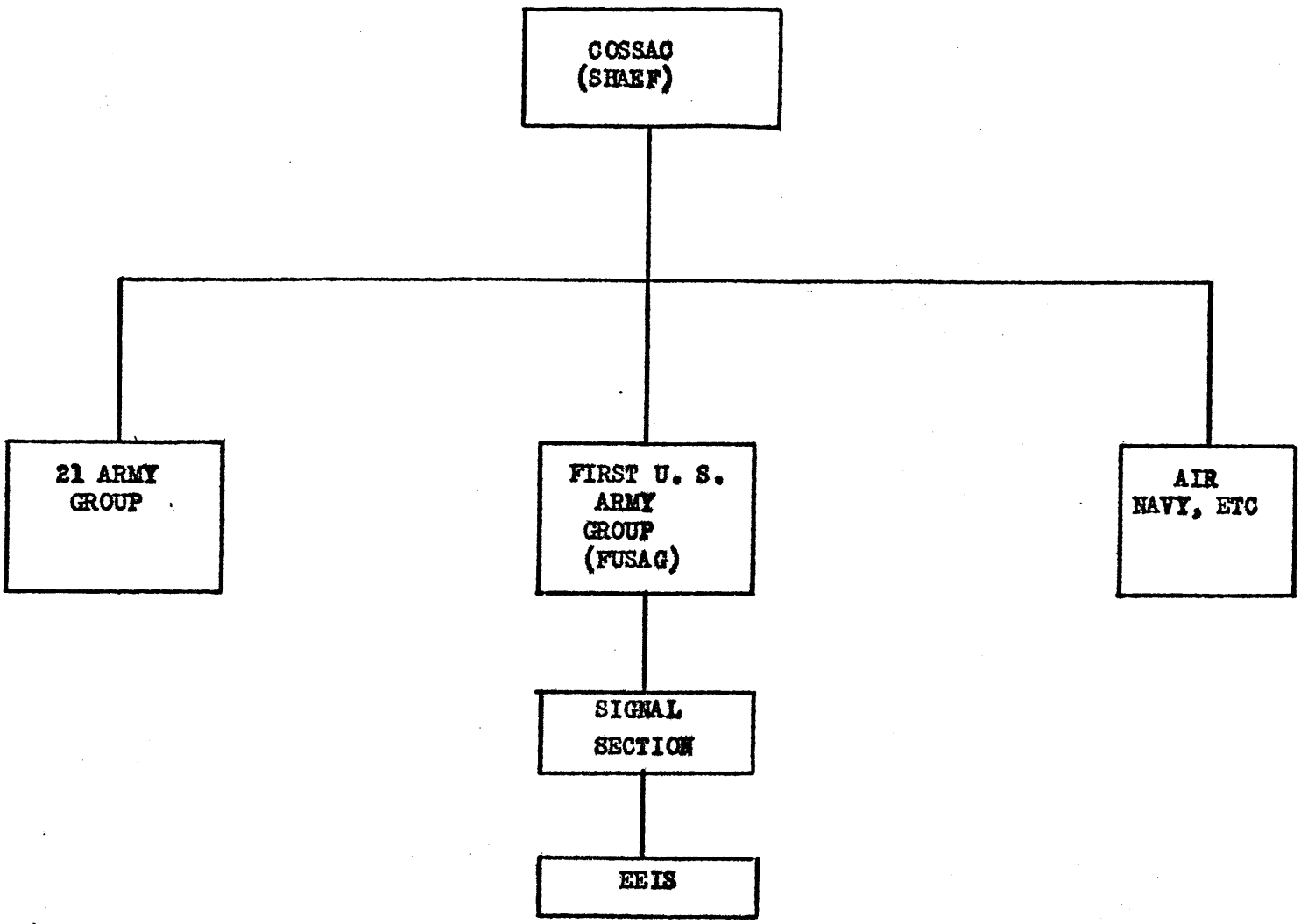
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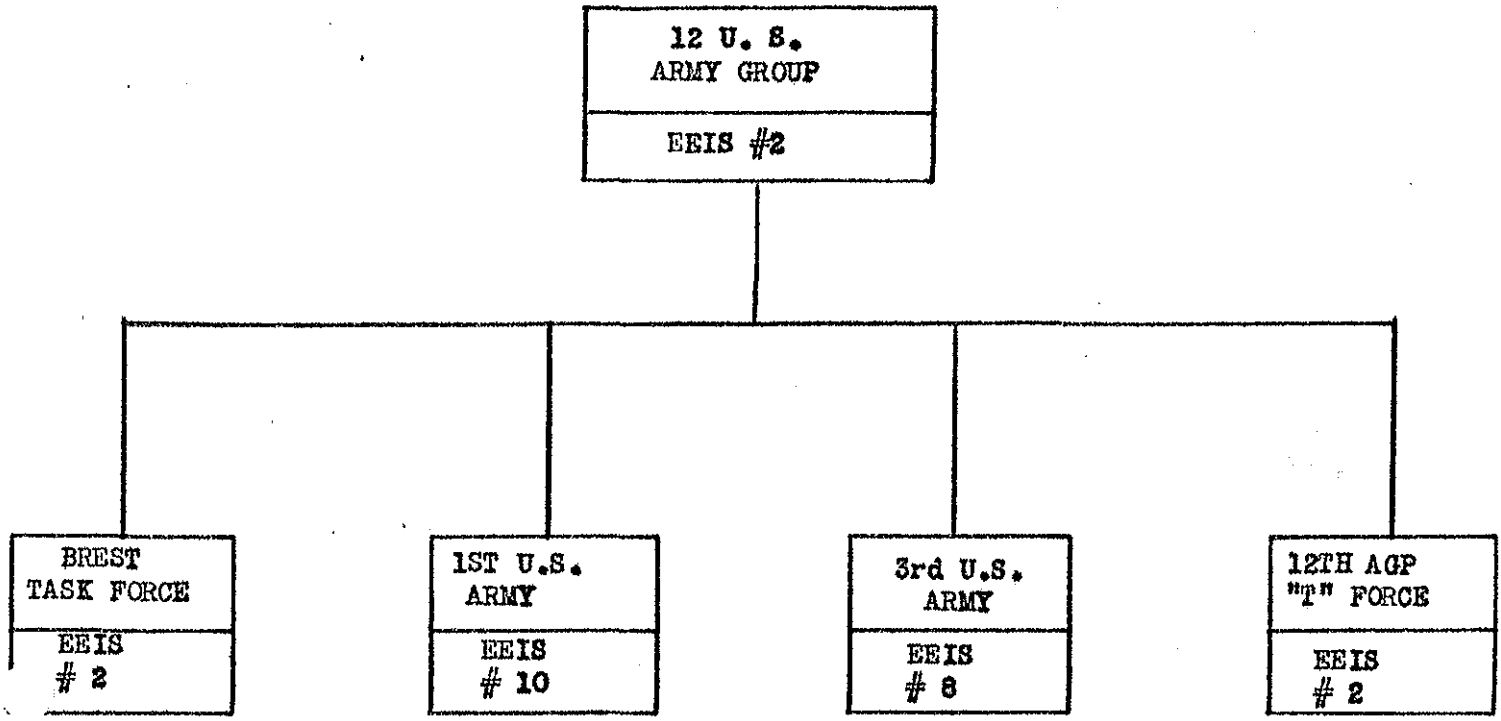
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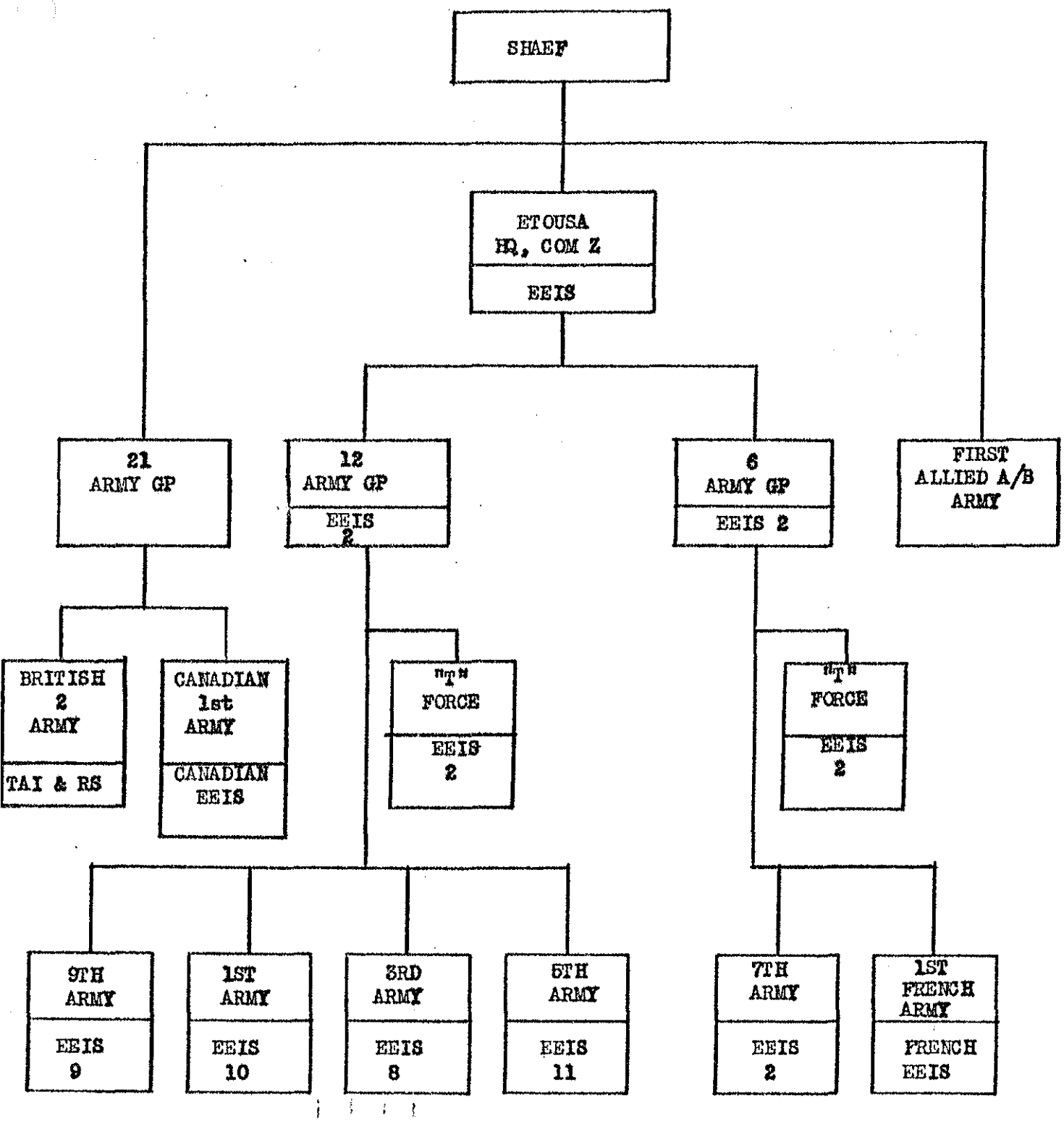
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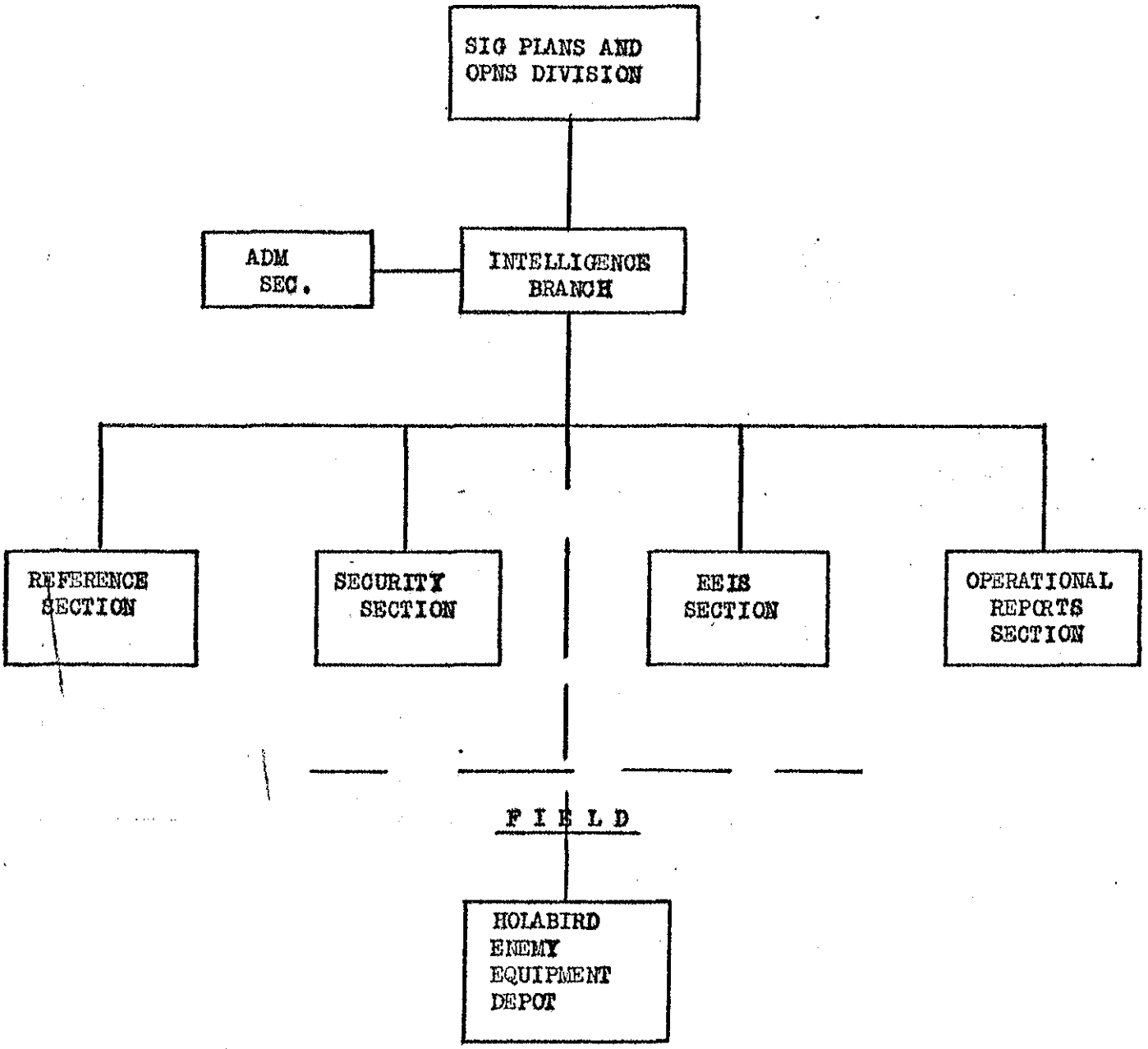
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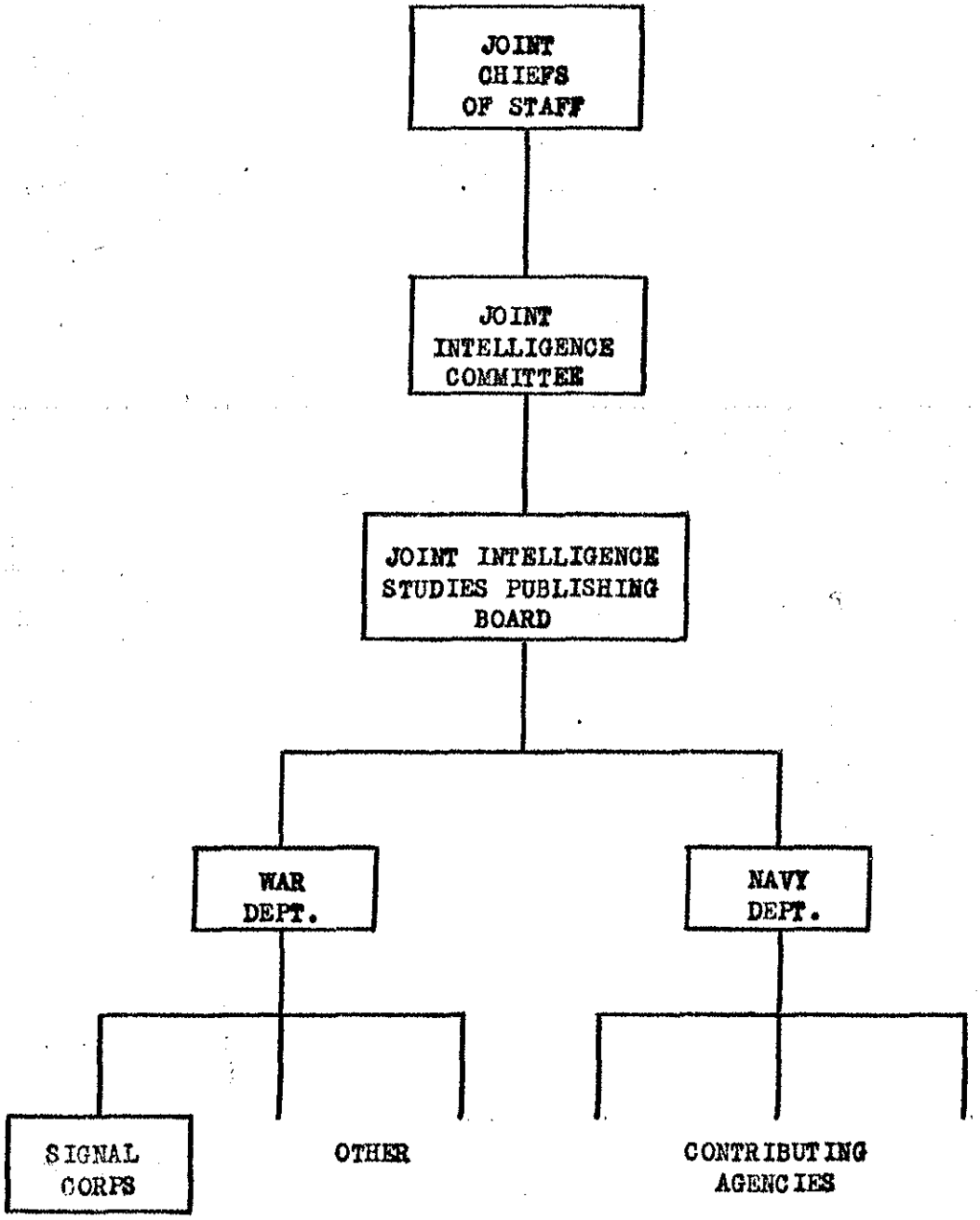
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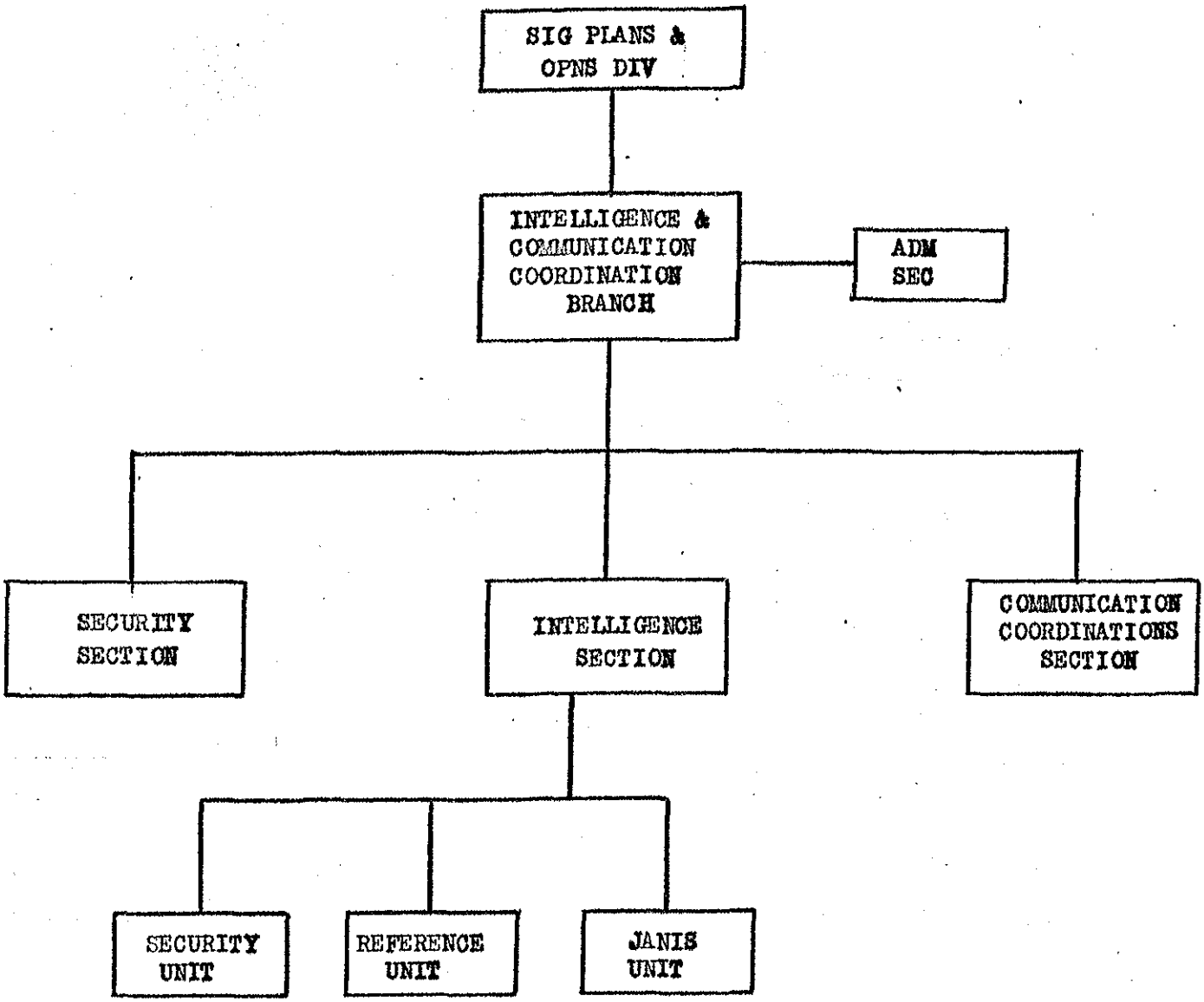
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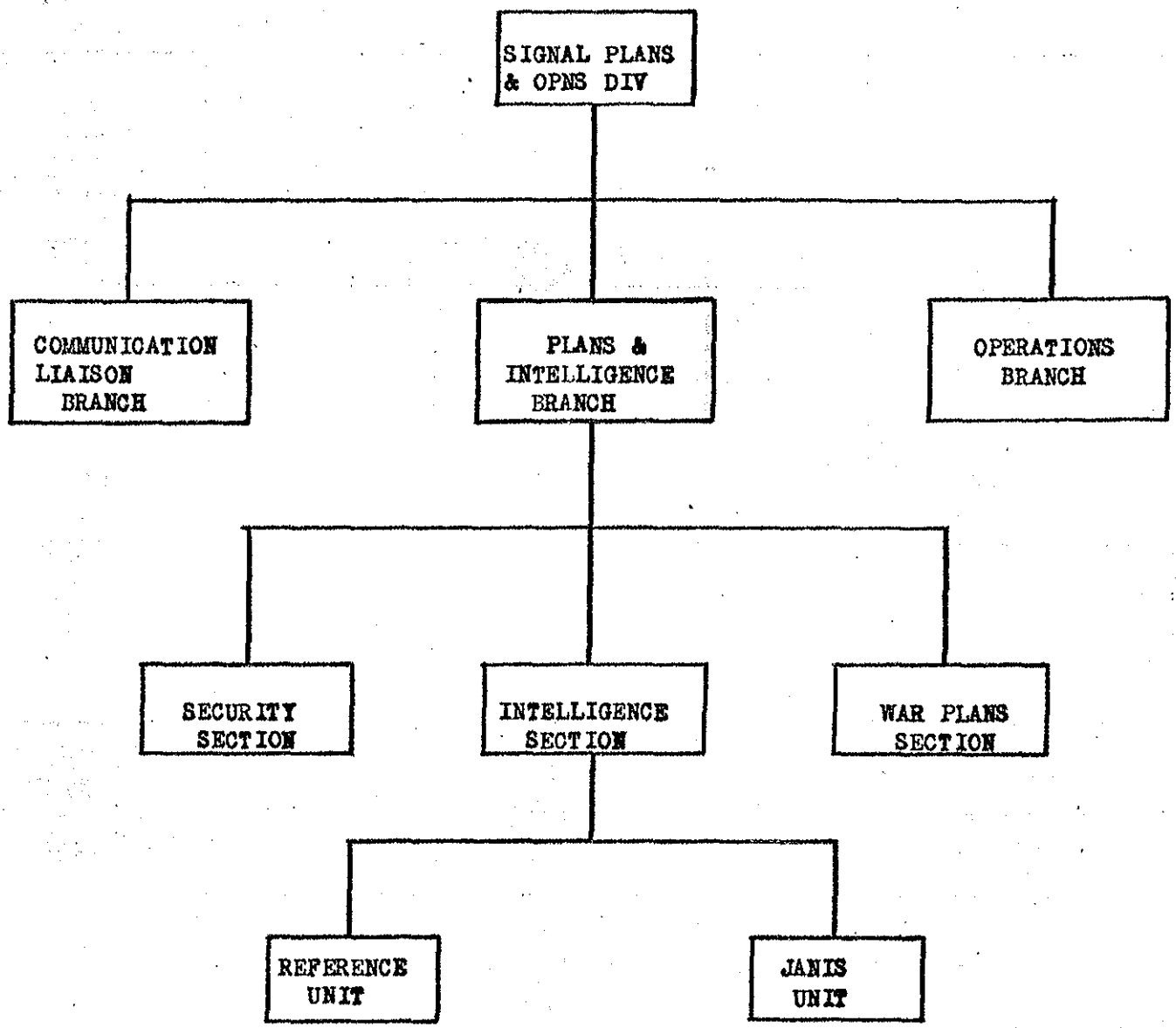
APPENDIX 11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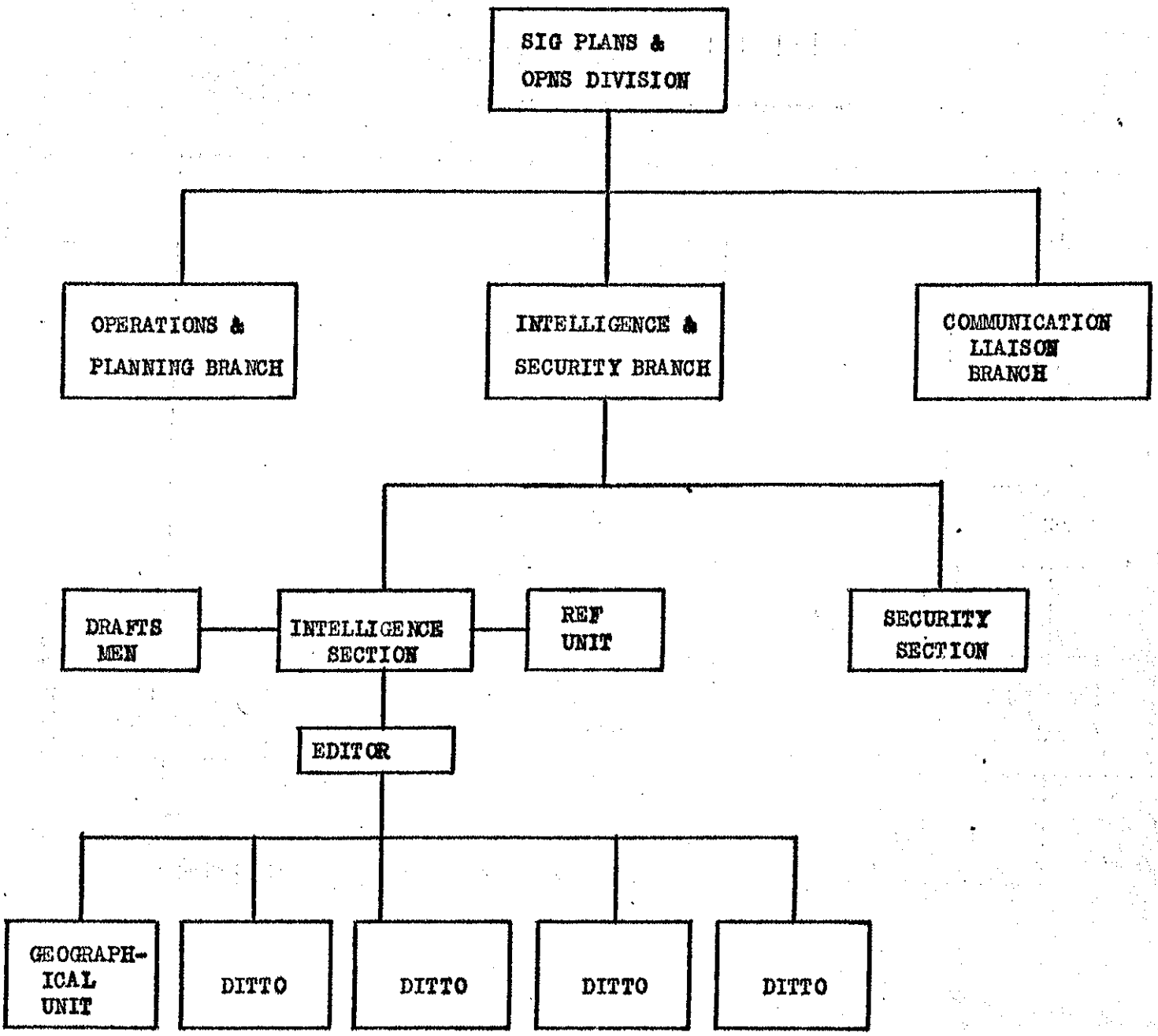
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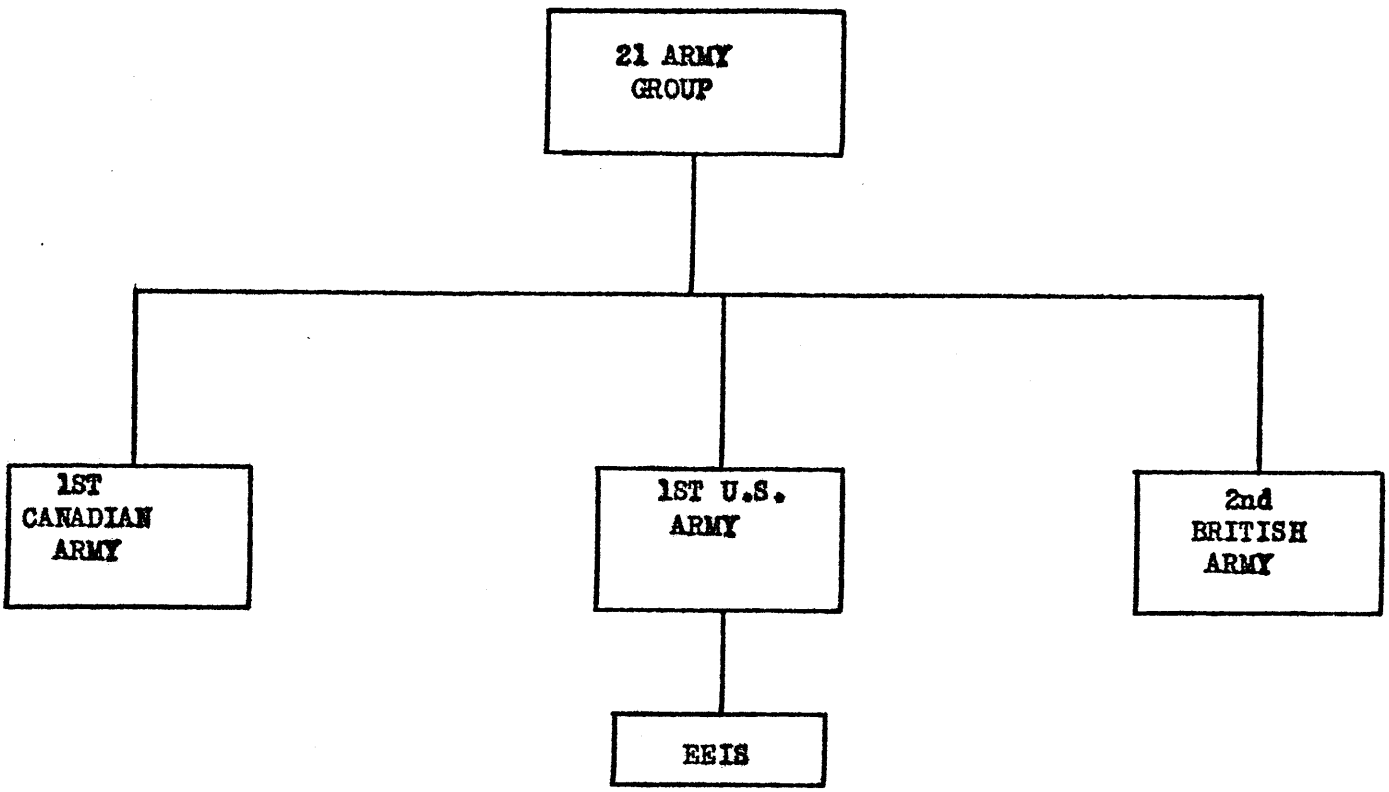
APPENDIX 5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