

SRH-277

A LECTURE ON COMMUNICATIONS INTELLIGENCE

BY RADM E. E. STONE, DIRAFSA

5 JUNE 1951

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LECTURE

ON

"COMMUNICATION INTELLIGENCE"

DELIVERED BY

REAR ADMIRAL EARL E. STONE, U.S. NAVY
DIRECTOR, ARMED FORCES SECURITY AGENCY

AT 0845, TUESDAY, 5 JUNE 1951

BEFORE THE

NATIONAL WAR COLLEGE FACULTY AND STUDENT BODY

AT

FORT LESLEY J. McNAIR

WASHINGTON, D.C.

Do NOT destroy. Return to the
Director, AFSA, 1111
11th St., NW, Wash., D.C. 20541
E. E. Stone
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General Weickert,
--General Bull, [^]Gentlemen --

--It is a great pleasure to be with you today to tell you something
about communication intelligence.

This is a TOP SECRET Presentation for U.S. Personnel.

--The problem of imparting highly classified information always
requires a fine balance to be drawn.

There is much truth in the saying that a secret known by more than
one person is no longer a secret.

However, anything which is of such high secrecy that it cannot be
given to those who need it, loses completely its practical
value.

--This balance must be drawn with particular care in the case of
communication intelligence operations, for no form of military
activity is more vulnerable to crippling damage either from
careless or intentional disclosures.

Because of the tremendous scope of modern military operations and
the great mobility of military forces, military codes and
ciphers must be used over wide areas.

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Compromises of such codes and ciphers, therefore, seldom have merely a local effect.

Knowledge that secret messages are being read by the enemy leads to swift and sweeping changes which may nullify months of effort spent on breaking the cryptographic systems.

--For these reasons, strict limitations have been imposed by administrative action upon dissemination of information pertaining to communication intelligence, even among those who are directly involved in its production.

Additionally, the President of the United States approved, on 13 May 1950, Public Law 513.

This law provides stiff penalties for those who disclose to unauthorized persons any classified information about the communication intelligence activities of the United States, or any foreign government, or information obtained by communication intelligence processes from foreign governmental communications.

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--Within the security limitations that have been imposed, it is my hope to give you first, some insight into the part that communication intelligence has played in modern war, and, secondly, some general idea of the means by which this intelligence is obtained.

For this purpose, I shall touch upon certain examples of successful communication intelligence operations.

NATURE OF COMMUNICATION INTELLIGENCE

--Before proceeding, it is important that we have a common understanding of the nature of communication intelligence and the meaning of certain terms used in connection therewith.

--Communication intelligence (commonly called COMINT) is the name given to information derived from the study or analysis of radio transmissions and other communications whose meanings are normally concealed from unauthorized recipients.

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This concealment is usually accomplished by codes, ciphers, or other secret means of writing, to which the general term cryptography is applied.

Communication intelligence (or COMINT) may be said, therefore, to result from an attack on cryptography.

This involves many processes and techniques.

Most important of these are cryptanalysis and traffic analysis.

--Cryptanalysis has to do with the solution of codes, ciphers, and other secret means of communication.

Its primary objective is to make readable the text or substance of secret communications.

Much information is also obtainable, however, from communications without reference to the text or substance.

The process of obtaining information in this manner is called traffic analysis.

It involves deductions from studies of traffic volume and routing, call-sign identification, direction finding, transmitter identification, and similar procedures.

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In actual practice, as we shall later see, cryptanalysis and traffic analysis are complementary processes and are frequently interdependent.

Perhaps the simplest way to describe the nature of communication intelligence operations is to say that essentially they constitute a communications service.

They include all of the functions normally associated with the handling of messages by electrical means, i.e., receiving, transmitting, routing, decoding, encoding, and delivering traffic.

Generally speaking, the only respects in which the work of a communication intelligence organization differs from that of a conventional communication organization are that:

- (1) Initial reception (or interception) of messages must be done on a catch-as-catch-can basis, i.e., no control can be exercised over the original means of transmission, nor can the intercept operator ask for a repeat if he misses anything;

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(2) Much greater effort, skill, and facilities are required for decoding messages because the sender does not provide the means for decoding, and;

(3) The messages received are not delivered to the intended addressees but to intelligence consumers instead.

--With some idea of the general nature of communication intelligence, we may now consider its significance.

--The steadily increasing importance of telecommunications as a means of conveying military, diplomatic and economic information has become apparent with the growing tempo of modern life.

The global nature of military operations and the far reach of national and international affairs have created communication requirements that only radio and other electrical communication systems can satisfy.

Over these rapid communication channels of the world the vital plans, ideas, and thoughts of nations are flowing.

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These channels are thus, potentially at least, the most important sources of intelligence to tap.

--They have proved to be especially valuable sources because they frequently carry authoritative and accurate information regarding plans and intentions.

Thus they often supply vital information not obtainable from other sources, such as reconnaissance, which normally supply intelligence only on enemy capabilities.

--These facts explain the tremendous importance which communication intelligence has assumed in modern war.

The uncovering of an enemy's secret plans through radio interception and cryptanalysis has permitted immeasurable savings in men and money, and has on many occasions meant the difference between victory and defeat.

COMMUNICATION INTELLIGENCE WORLD WAR I

--There are numerous instances in history of code solution to obtain information by clandestine means, but not until

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World War I was there any organized and sustained effort to procure military intelligence from enemy communications, for it was then that radio first came into general use for warfare.

The story of communication intelligence in World War I has gradually unfolded in the years that have followed, and there is now no question as to its immensely important role in that conflict.

Referring to the work of British Admiralty cipher experts, in connection with such important military and political events as the battle of JUTLAND and Germany's attempt to obtain Mexico's support, the Earl of Halifax said:

"To room 40, the country owes an immense debt of gratitude - a debt which at the time, at least, could never be repaid.

Secrecy was of the very essence of the work, and never was secrecy more successfully observed."

--The French also repeatedly broke the German ciphers in World War I and obtained invaluable intelligence.

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Meanwhile, the Germans and Austrians worked on the Russian ciphers with great success which undoubtedly resulted in bringing the war on the Eastern Front to an earlier close.

COMMUNICATION INTELLIGENCE BETWEEN WARS

--The interesting revelations of World War I had a profound effect upon developments in the field of cryptography.

Nations began to grow security minded, and, in consequence, the difficulties confronting cipher experts multiplied by leaps and bounds.

Most notable of the disclosures were those in a book called "THE BLACK CHAMBER" by an American cryptanalyst named Yardley, who had been employed by our State Department.

Mr. Stimson, then Secretary of State, abolished the Department's cryptanalytic activity, and Yardley, in protest published an account of American activities.

Mr. Stimson later explained his action by saying that "Gentlemen do not read one another's mail."

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--The misfortune of Yardley's book was that, in addition to facts about the war, it revealed our success with Japanese codes during the Washington Armament conference in 1921.

The book was widely circulated in Japan and created a sensation. The Japanese, feeling that they had been tricked, were extremely resentful.

At home the immediate effect was to require the exercise of the greatest caution and secrecy in carrying on cryptanalytic work.

In consequence, it was never possible to present properly the needs of the communication intelligence organization and to obtain for it the requisite support.

--Despite these handicaps, the Army and Navy had succeeded in breaking the diplomatic ciphers of the Japanese that enabled us to follow in detail their secret diplomatic and political maneuvers leading up to the second World War.

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COMMUNICATION INTELLIGENCE IN WORLD WAR II

--While communication intelligence made contributions of the greatest value in World War I, it attained a position of decisive importance in the conduct of operations during world War II.

This conclusion is probably best supported by the following statement which appears in the report of the Pearl Harbor Investigating Committee of Congress:

"All witnesses familiar with communication intelligence material throughout the war have testified that it contributed enormously to the defeat of the enemy, greatly shortened the war, and saved many thousands of lives."

--This contribution is all the more extraordinary in the light of the meagre U.S. communication intelligence effort at the outbreak of war.

Although both the U.S. Army and the U.S. Navy had small organizations in operation much earlier, and plans for moderate

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wartime expansion existed, there was actually little appreciation beyond those organizations of the potentialities of this type of intelligence.

Nor was there any realization of the enormous effort which would be necessary to produce it.

In fact, it was only through the timely advent of British-American collaboration in this field that some of our deficiencies were overcome early in the war.

--When the war started in Europe in the fall of 1939, the total U.S. Army and Navy personnel engaged in communication intelligence was a mere 300, as compared to the 37,000 that were involved at the end of the war in 1945.

--On 7 December 1941 there was no over-all directive assigning responsibility among the various government departments in the communication intelligence field.

Within the Armed Services, by informal agreement, responsibility for the work on foreign encrypted communications had been

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divided as follows:

Military traffic - Army

Naval traffic - Navy

Diplomatic traffic - Divided between Army
and Navy

Clandestine traffic - Coast Guard.

(The Coast Guard had developed considerable skill in the latter through its work against rum runners.)

Other government agencies were also taking an interest in the field, including the FBI, the FCC and the OSS.

As the war progressed, the work was restricted to the military Services, with the FBI making a small contribution toward counter-espionage activities.

The Army and Navy cryptologic organizations expanded far beyond expectation.

In fact, by their combined efforts they produced such a large amount of high-grade wartime intelligence that they were

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unprepared to afford the material the careful handling that it required, and serious security lapses consequently occurred.

--The battle of Midway provides one of the examples of a vitally important cryptanalytic achievement which unfortunately was publicly revealed during the war.

The revelations in the press jeopardized the source and caused political reverberations.

Nevertheless, this battle remains one of the high points of the war from a communication intelligence standpoint.

An official narrative of the Joint Combat Intelligence Center, Pacific Ocean Areas, in commenting on this engagement, contains some interesting remarks on the role of radio intelligence in the Pacific war.

I quote, "The factors that vitally affected the battle of Midway were many and complex, but it is undoubtedly true that

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without radio intelligence it would have been impossible to have achieved the concentration of forces and the tactical surprise that made the victory possible.

In the defensive stages of the war, radio intelligence was not only the most important source of intelligence in the Central Pacific -- it was practically the only source.

There were very few captured documents or prisoners of war.

There were no photographs of enemy-held positions.

In the Central Pacific, excluding the Solomons and New Britain, spies and coast watchers' reports never supplied any important intelligence." Unquote.

--In his recently published memoirs, Winston Churchill tersely appraises the contribution of communication intelligence in these guarded comments on the battle of Midway, which I quote; "It is difficult to exaggerate the importance of this memorable American victory, not only to the United States, but to the whole Allied cause.

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"The American intelligence system was successful in penetrating the enemy's most closely guarded secrets well in advance of events.

"Thus Admiral Nimitz, albeit the weaker, was able to concentrate all the forces he had in sufficient strength at the right time and place.

"When the hour struck this proved decisive.

"The importance of secrecy and the dire consequences of leakage of information in war are here proclaimed." Unquote.

--One of the most dramatic episodes of the war -- the ambush of Admiral Yamamoto -- was distinctly a victory of cryptanalysis. U.S. Navy experts decrypted a message which gave information concerning a projected inspection trip by Yamamoto.

The result may be summarized by an official Japanese Navy Department communication, reading in part as follows:

"The Commander in Chief of the Combined Fleet, Admiral Yamamoto, died an heroic death in April of this year in air combat

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with the enemy while directing operations from a forward position."

Although the facts were widely circulated in the Pacific, the Japanese apparently never found out until the Pearl Harbor investigation that insecure communications killed Yamamoto.

I might say, in passing, that this is an excellent example of highly effective teamwork between the Army and Navy in the war.

In this particular case, the Navy obtained the intelligence and set the trap; the Army Air Force sprang it.

--Time does not permit me to dwell any further on the nature and scope of our cryptanalytic results in the Pacific.

THE ATLANTIC WAR

--Let us now turn to the Atlantic.

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There our problem was of a different nature; there, instead of the deviousness of the Japanese approach to security, we were confronted with technical problems of the highest order. We had to rely upon traffic analysis techniques to determine the location and movement of enemy forces.

Radar and sonar had demonstrated tremendous potentialities as aids in the U-boat hunt, but these aids had to be brought within their effective range before they could be useful.

It was here that communication intelligence supplied the necessary link.



—By means of direction finders the problem of search was vastly simplified, and aircraft and surface vessels were enabled to confine their operations to profitable areas.

Conversely, it was possible to divert the convoys from those areas where the probability of attack was high.

Success against the German submarine was thus in the end primarily the result of the highly efficient coordination of communication intelligence, radar, sonar, aircraft and surface escorts.

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From the time this coordination became effective, the enemy's submarine losses began to mount sharply and our losses in the Atlantic showed a marked and steady decline.

The next three slides (1), (2) and (3) are actual examples of three daily situation plots forty-eight hours apart.

The black dots represent direction finder fixes on U-boat radio transmissions.

As you can see, the dots show clearly the active submarine operating areas.

These situation plots are of particular interest because they show the developments of two wolf-pack attacks.

These are clearly indicated by the concentrations of dots in the latter two plots.

D/F PROBLEMS

--As important as the direction finder proved to be, its practical application presented a number of formidable technical problems.

Fixing a position was more an art than a science.

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The vagaries of wave propagation, and the presence of instrumental and personal errors, made it impossible to rely on merely a few bearings.

For example, here is an actual and typical plot of bearings in the Atlantic (4).

Note the area covered by the intersections as compared to nearby land masses, such as Cuba.

--To overcome such difficulties, a very large and extensive direction finder net was established.

At its peak the Atlantic net contained 51 stations, manned by American, British, and Canadian personnel.

--Special systems of evaluating the bearings from these stations had to be evolved so that the results could be brought within practical limits.

IDENTIFICATION

--By use of direction finders it was possible to determine the enemy's location.

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There still remained, however, the question of his strength.

For example, suppose fixes were obtained on a dozen transmissions on a given day, all of which plotted in a small area.

Were those all from the same submarine, or were they from a wolf-pack preparing to attack?

This was a vitally important question to answer.

--To this problem we applied methods of identifying transmitters, termed, "radio finger printing."

By studying oscilloscope pictures of the wave envelopes of enemy radio emissions, peculiar characteristics become apparent by which it is possible to identify individual radio transmitters.

Many complications, of course, were involved in the actual application of these various procedures.

That our procedures were effective, is brought out in a 1944 German analysis of the causes of their submarine losses, which we captured after the war;

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I quote: "It looks as though the high degree of efficiency of the enemy's aircraft radar, so often surprising, has received remarkable and decisive assistance from directions based on the results of the D/F Service.

"It also looks as though a remarkable collaboration between the whole surface location system described above and the A/S groups using underwater location methods, as well as increased efficiency in the control of these A/S groups, is being achieved." Unquote.

--If I appear to have concentrated on naval activities in what has been said, it is merely because they are more familiar to me.

But I can assure you that the Army also achieved notable successes.

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ORGANIZATION

--You are doubtlessly wondering what sort of organization was re-

quired to produce the results that I have discussed.

Perhaps I can give you some idea by explaining the naval set-up.

I select this example because it was perhaps more clear-cut from

a command point of view.

MISSION

--The Navy's mission entailed the reading of all possible enemy

naval, weather, and clandestine communications.

Since enemy action, by either combat or subversive forces, was

going on all over the world, in neutral as well as enemy

countries, and since radio waves do not respect military

boundaries, the problem completely transcended all theatre

limits.

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A world-wide organization therefore had to be set up so that any message, wherever intercepted, could be immediately forwarded to a processing center for decryption and then quick delivery in readable form to the operating commander who required it.

--To meet these problems, the naval communication intelligence facilities wherever located were placed under a central controlling agency in Washington.

The various operating elements were then welded into a unified whole by means of a special communication system, separate from the regular naval communication service.

DISSEMINATION

--An important factor in success was the system of disseminating operational information from enemy communications.

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No attempt was made at prior evaluation of such information in Washington, except for local operating authorities, or as specifically requested by operating commanders in the various theatres.

The authority for distributing information direct to major commands was delegated to the main processing centers.

A flash radio circuit was established on which were the U.S. and Allied communication intelligence centers and the combat intelligence center of the senior naval commander in each theatre.

Information produced in each communication intelligence processing center was immediately placed on this flash circuit and passed around to all of the main combat intelligence centers.

Each of the latter took from the circuit all information required for its use, then evaluated and disseminated it as intelligence to the operating forces which it served.

--This system presupposed that the best place to determine the operational information required, and to evaluate that

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information and disseminate it to the operating forces, was at the theatre command centers.

They were not only in the position of having the most complete and current information regarding our own forces, but were able to receive enemy information affecting our own operations more directly and quickly from the various other sources in the theatre.

--This slide (5), shows in schematic form the U.S.-U.K. naval communication intelligence system as it finally evolved in the closing months of the war.

As an operating mechanism it functioned very smoothly and, from the reports of the commanders it served, it apparently met their requirements exceptionally well.

POSTWAR ACTIVITIES

--The bulk of the wartime intelligence naturally came from the communications of Germany and Japan, but much useful intelligence

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was obtain^{ED} from other sources,

--During the immediate post-war period, studies were made with regard to the problem of further increasing the efficiency and economy of the total communication intelligence effort.

These studies eventually led to the creation of a single consolidated agency, in order to place under one authority the conduct of all communication intelligence and communication security activities within the Department of Defense, except certain field activities to be conducted individually by the Army, Navy and Air Force.

The establishment, in May 1949, of the Armed Forces Security Agency, or AFSA as it is known, was the result.

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AFSA's primary function is to serve the Armed Forces.

However, it has been also assigned the responsibility of producing communication intelligence for the State Department, Central Intelligence Agency, and the FBI.

AFSA now produces essentially all of the COMINT for the Federal Government.

Coordination between the various communication intelligence activities of the Department of Defense and those of State, CIA, and FBI is effected by the United States Communications Intelligence Board, under the National Security Council.

General Bedell Smith, the Director of Central Intelligence, is currently Chairman of this Board.

The Director, AFSA, is the Executive Agent and Coordinator for the Board, USCIB.

ORGANIZATION AND FUNCTIONS OF THE ARMED FORCES SECURITY AGENCY

--The basic directive from the Secretary of Defense states that AFSA shall consist of such facilities, units and military and civilian personnel of the Armed Forces as are used for,

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or engaged in, communication intelligence or communication security activities, plus such other facilities, units and personnel as the Joint Chiefs of Staff may determine as necessary.

A Flag or General officer of the Army, Navy or Air Force, appointed by the Joint Chiefs of Staff, subject to the approval of the Secretary of Defense, serves as the Director of the Armed Forces Security Agency.

The tour of duty is two years and the Directorship is to rotate among the three Services.

I am at present the Director, but expect to be succeeded next month by Major General R.J. Canine of the Army.

--To assist the Joint Chiefs of Staff in discharging their responsibilities for the control of AFSA, the Armed Forces Security Agency Council (AFSAC) has been established as an Agency of the J.C.S.

The membership of this Council at present includes the Director of AFSA as Chairman, the three chiefs of intelligence

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of the three Services, and the three chiefs of communications.

The Council has advisory functions, and also has been delegated certain authority to act for the Joint Chiefs of Staff when there is unanimity in the action proposed by the Council.

--Briefly, AFSAC has the responsibility of recommending to the J.C.S., policies, operating plans, and doctrines which will ensure the effective operation of AFSA. In effect, the Council functions somewhat like a Board of Directors.

--The status of AFSA and AFSAC are shown on the next slide. (Here show slide no. 6 and go into detail on the place of AFSA in the big picture.)

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--This next chart shows the immediate relationships of AFSA and AFSAC. (Here show slide no. 7.)

--The Director, Armed Forces Security Agency, is required to formulate, and after approval, to implement plans, policies

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and doctrines relating to communication intelligence. He must also perform such other functions as the Joint Chiefs of Staff may direct.

Among his most important duties are:

- (1) Conduct of communication intelligence operations;
- (2) Preparation and prosecution of programs for research and development of cryptologic equipment under the cognizance of AFSA;
- (3) Preparation of technical training programs and establishment of training standards for AFSA personnel; provision of certain specialized training for personnel of the Services;
- (4) Provision of technical support to the Army, Navy and Air Force in their conduct of COMINT activities.

--The Director, AFSA, is also charged with certain duties relating to our own communication security including the design and production of the codes and ciphers for the three Services.

I shall not discuss them because they concern another subject.

(Here show slide no. 8.) Shows a simplified diagram of AFSA organization.

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--The three Services have been directed by the Secretary of Defense to take necessary action to facilitate the efficient and economical operation of AFSA -- including the assignment of personnel, the furnishing of facilities, equipment, and fiscal and logistic support.

The Services are required to provide certain radio intercept installations as authorized by the Joint Chiefs of Staff.

Such installations are manned and administered by the Services providing them, but are operationally directed by AFSA.

The Services may, in addition, operate mobile COMINT units which they require individually for combat purposes.

These, upon request, perform special missions for AFSA.

--With regard to research and development, which are among the most important functions of AFSA, the mission is to support to the maximum possible degree our intelligence activities.

The tremendous technical advances being made in all fields affecting our work require the expenditure of a large portion of our effort on this function.

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--In this lecture it has been necessary to confine myself essentially to an historical treatment of communication intelligence.

Such a treatment is useful, but we are all naturally more concerned about the present and future.

In World War II, great things were accomplished.

This was due primarily to the skill and energy of our communication intelligence personnel.

--The problems of intercepting and reading foreign communications have been vastly complicated by technical advances, even since the end of World War II.

The publicity concerning our successes has also had its effect.

Other nations are taking increased measures for security, and our difficulties have multiplied accordingly; therefore, we cannot be confident of repeating the achievements of the last war.

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However, communication intelligence operations offer virtually the only hope of penetrating certain areas, and it is essential, therefore, to make the most of them.

EXPLOITATION

--As future operating commanders, your primary concern with communication intelligence is naturally its exploitation.

In this, you will share the important responsibility for protecting the source.

A few suggestions may be helpful to you at some later date.

--All knowledge and experience of war point to the necessity of exploiting every possible advantage.

The temptation is naturally very great in the heat of battle to use communication intelligence whenever it is available.

This may lead to carelessness which will jeopardize the source.

--In time of war the full value of communication intelligence cannot be realized unless operational use is made of it.

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However, when action is contemplated, as a result of this vital intelligence, the possibility of compromising the source must always be borne in mind and this danger weighed against the military advantage to be gained.

A minor advantage is never alone sufficient ground for risking the loss of a communication intelligence source.

--The point of this principle is that most codes and ciphers are necessarily used over wide areas.

A change by the enemy as a result of suspected compromise may therefore have far-reaching consequences.

A commander in seeking a minor advantage in one locality may deprive another commander elsewhere of a much greater advantage or deny the use of communication intelligence in a subsequent major operation.

--As a corollary to this basic principle of exploitation, cover measures should always be taken in the use of communication intelligence.

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When the decision is made to take action based on it, studied effort must be made to ensure that such action cannot be attributed to communication intelligence alone.

When possible, such action must always be preceded by suitable reconnaissance or deceptive measures.

BRIEFING

--Special care must also be used in briefing aviators or other personnel engaged in missions or duties which might readily subject them to capture by the enemy.

Extreme pressure can be brought to bear upon such personnel if they fall into enemy hands, and it is both dangerous and unfair to burden them with secrets which they do not absolutely require.

Usually a little ingenuity will indicate how to use COMINT to accomplish an operational task without jeopardizing the source -- without killing the goose that lays the golden eggs.

INTEGRATION OF COMBAT AND INTELLIGENCE OPERATIONS

--A curious situation arose during the war which pointed to the necessity for close integration of combat and intelligence operations.

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As we captured enemy-held positions and sank enemy ships, the number of communicating stations decreased correspondingly.

Since our ability to obtain communication intelligence was directly dependent upon the volume of enemy transmissions that could be intercepted, we were confronted with the paradox of having our intelligence efforts threatened with defeat by our own combat successes.

--In the face of this difficulty, the aviators began to develop a great enthusiasm for knocking out radio stations, thereby aggravating the situation.

We were quick, therefore, in our appeals to restrain them and, fortunately, succeeded in having their attention directed to other targets before too much damage was done.

--Normally the disruption of enemy land-line and cable facilities is much more effective than the destruction of radio stations.

The former will have three beneficial effects.

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First, more enemy traffic will be driven to the air where it can be intercepted; second, this traffic will then have to be encoded, thus creating additional difficulties; and third, the additional load on the radio channels will probably tax their capacity, thereby seriously delaying, if not actually preventing, the delivery of many messages.

EVALUATION

--A few words on the evaluation and interpretation of communication intelligence are important.

Its reliability is great but not perfect.

The possibility of deception is always present.

That is another reason why reconnaissance prior to action on communication intelligence is always wise where practicable.

There is another aspect of communication intelligence that makes careful evaluation and interpretation essential.

Much of the information is fragmentary, and not a little is indirect.

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The pieces come "from the horse's mouth," but the picture they make often depends on the judgment of the intelligence analyst.

CONCLUSION

--In the discussion we have just had, I have tried to remove from communication intelligence the aura of mystery and romance which popular writers are in the habit of attaching to this subject.

My aim has been to present it to you as a serious problem.

It is such a complex and comprehensive one that, in the time allotted, I could give you only a glimpse of the over-all picture.

But, I trust that you have seen how radio is truly a two-edged sword.

Without it, command cannot function, but its improper use may bring disaster, as it did to our enemies, or at least prevent the achievement of surprise, as it occasionally did for us.

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As someone has aptly said, "If you use radio you are very likely to attract a lot of undesirable company."

--Above all, I hope you have gained some appreciation of the importance of communication intelligence to the future defense of our nation.

With the advent of long range air fleets and guided missiles which strike overwhelmingly and without warning, it has become obvious that peacetime intelligence is no longer merely a strategic protection, but a tactical one as well.

The devastation of the first atomic bomb crystallized this thought as nothing else could have done.

It is now apparent, with a special clarity and urgency, that completely effective intelligence is imperative for the safety of our country.

--If our nation is to be protected in the future, anticipation of attack alone is not enough, because attack may be too overwhelming to combat.

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In these times of total war, every field of national enterprise must be scrutinized for the slightest signs that may warn of hostilities.

Troubles must be detected before they can gain the momentum that leads to war.

This is the mission of intelligence, and especially of communication intelligence.

The weaker our military establishment, the stronger must be our intelligence safeguards.

--We are not alone in appreciating the significance of communication intelligence.

As evidence of this fact, let me read for you an extract from a Soviet document that was captured from the Germans at the end of World War II:

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"Study the enemy, improve intelligence -- the eyes and ears of
the Army.

"Remember that, without this, it is certainly impossible to
defeat the enemy!"

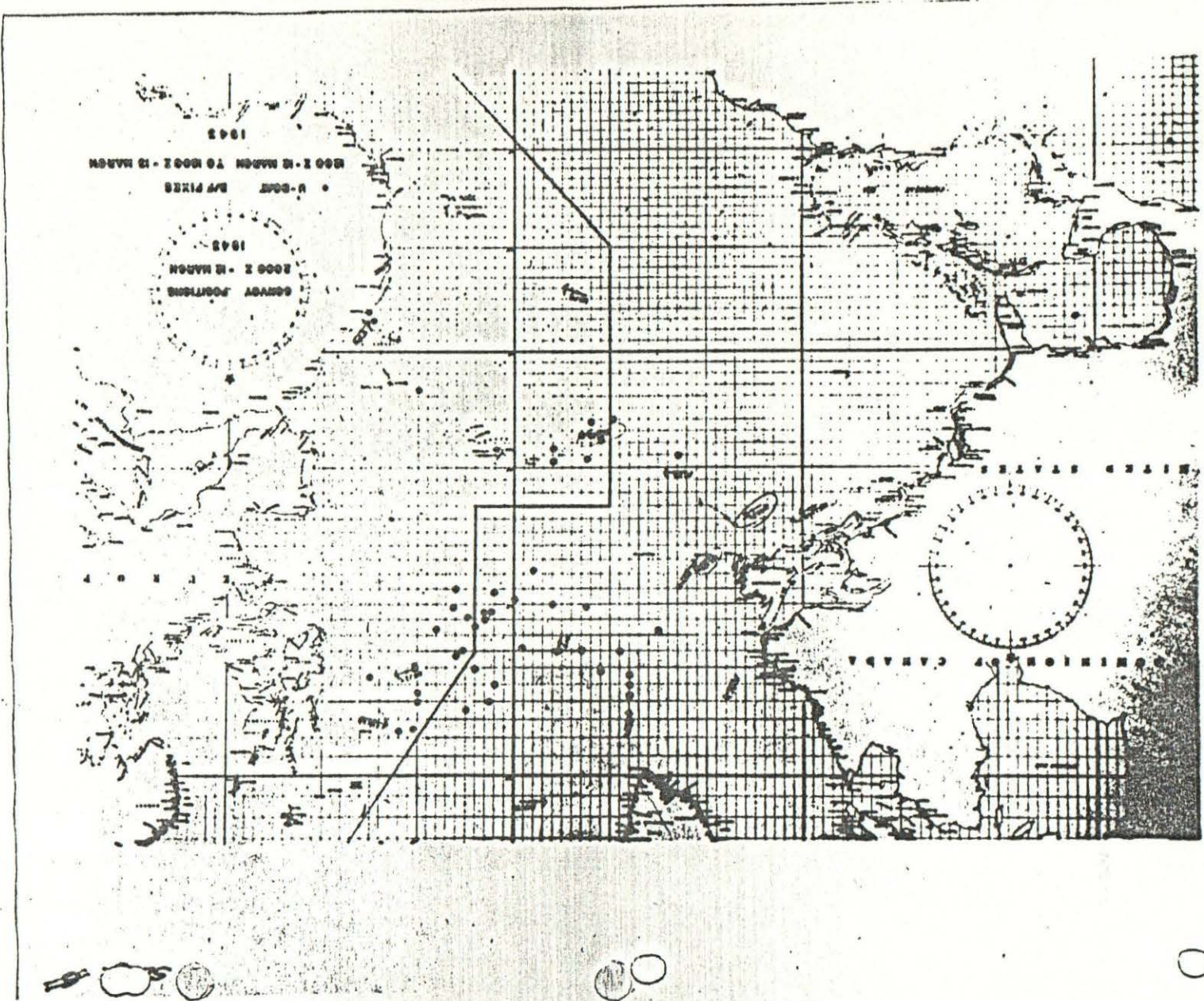
--In closing, may I emphasize again the importance of avoiding
unnecessary discussion of what has been revealed to you
today.

I wish to thank you for your very kind attention.

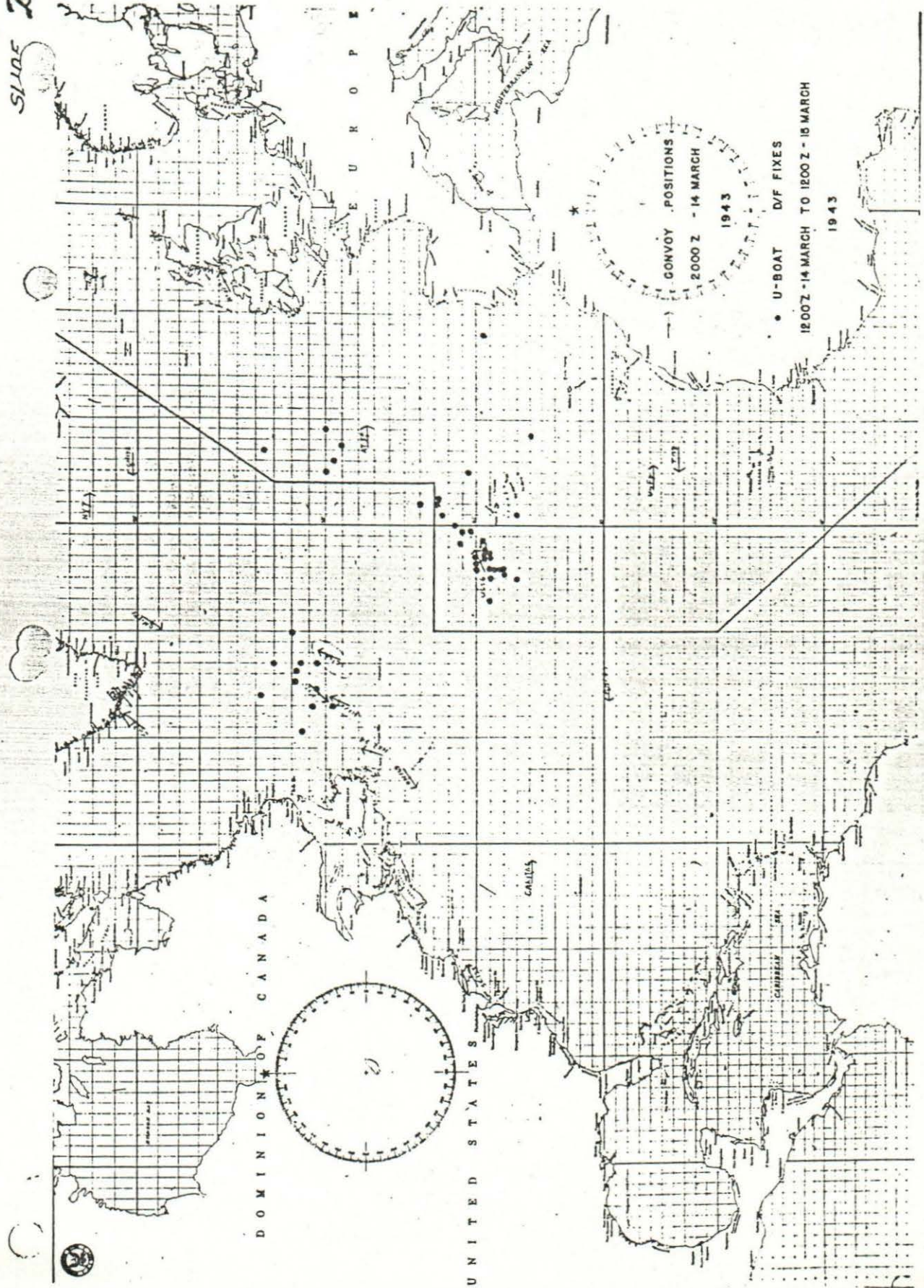
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~~TOP SECRET~~

SLN. No. 1



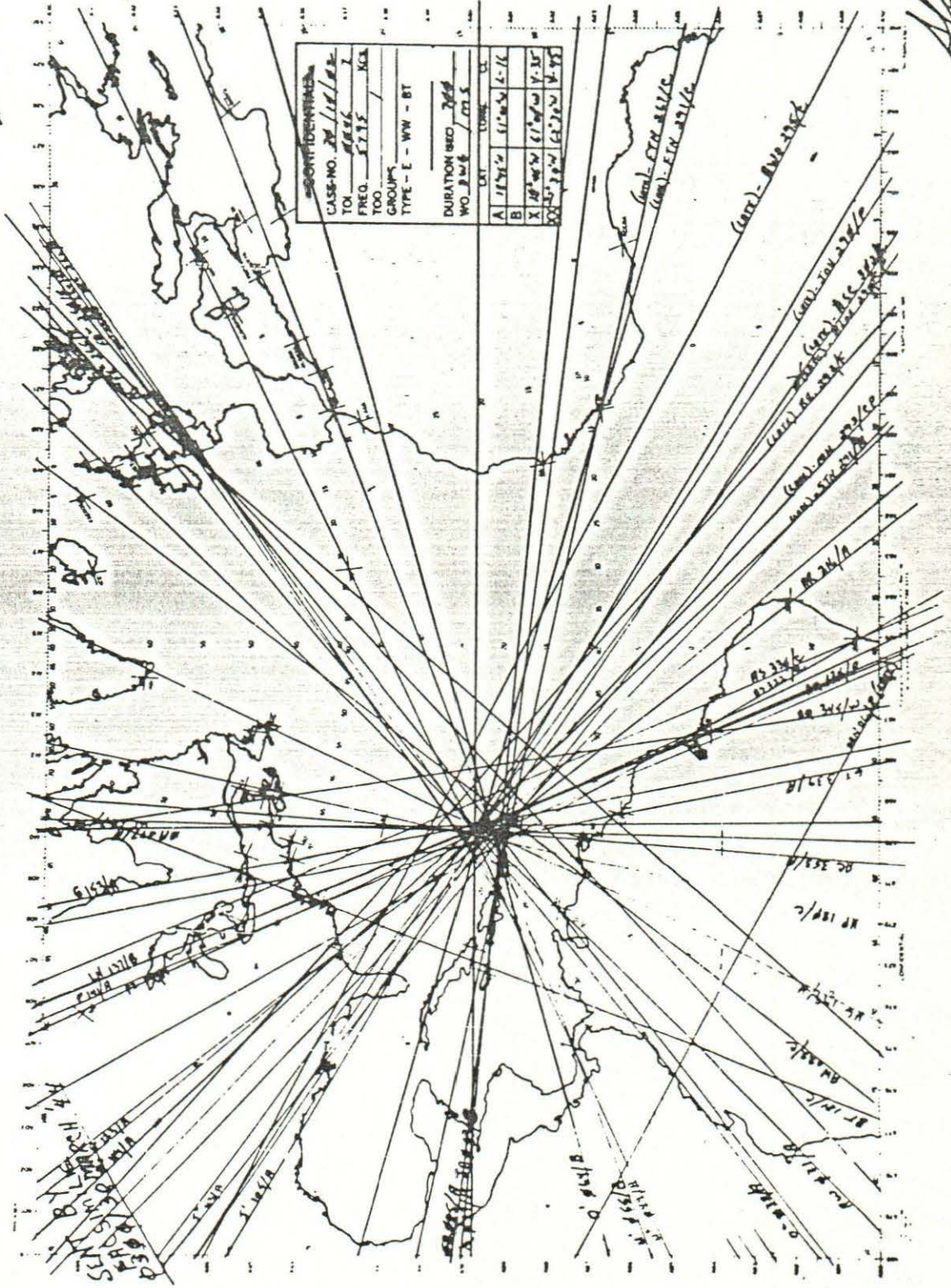
SLIDE 2



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SLIDE # 4

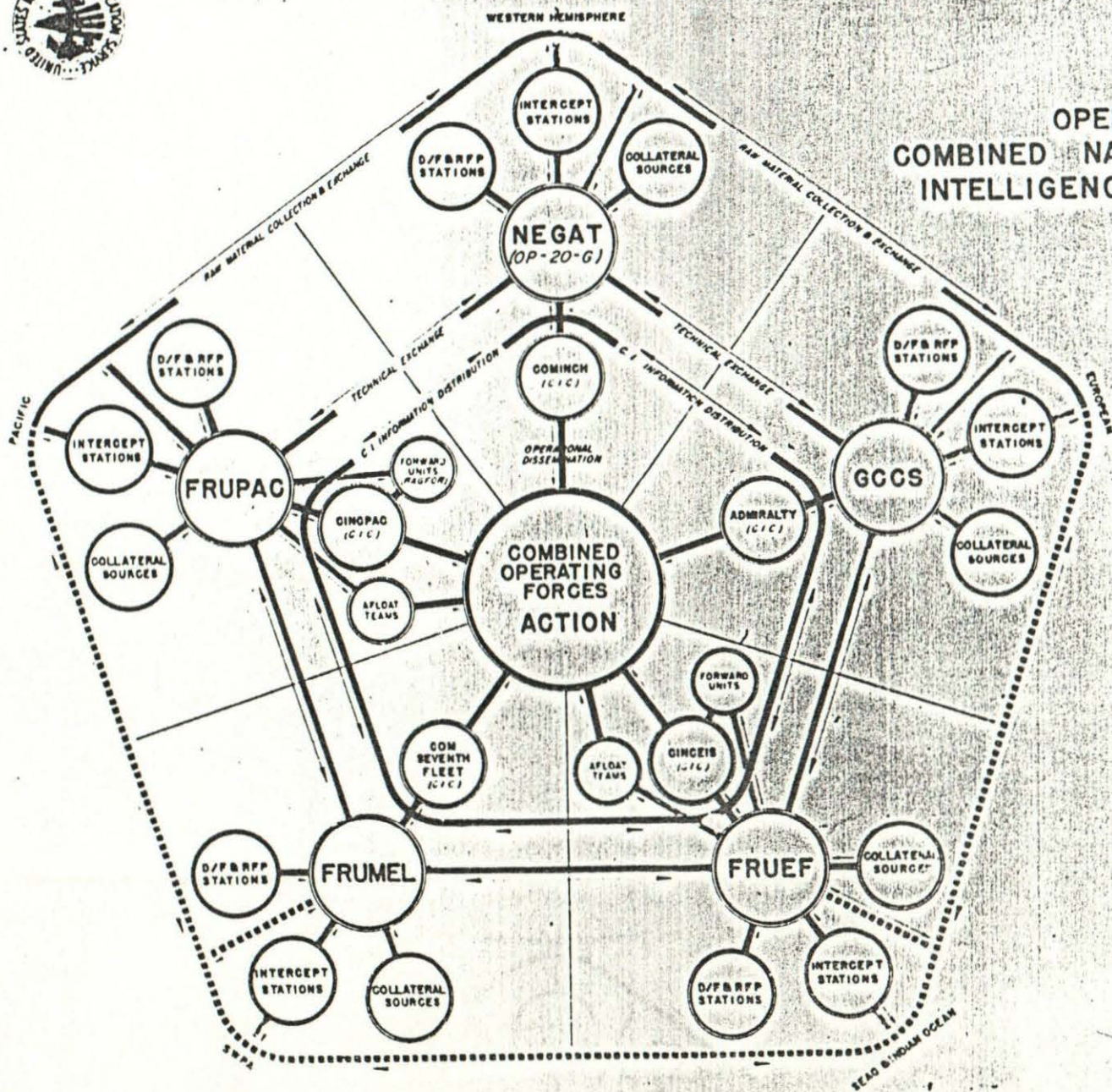
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SLIDE 17
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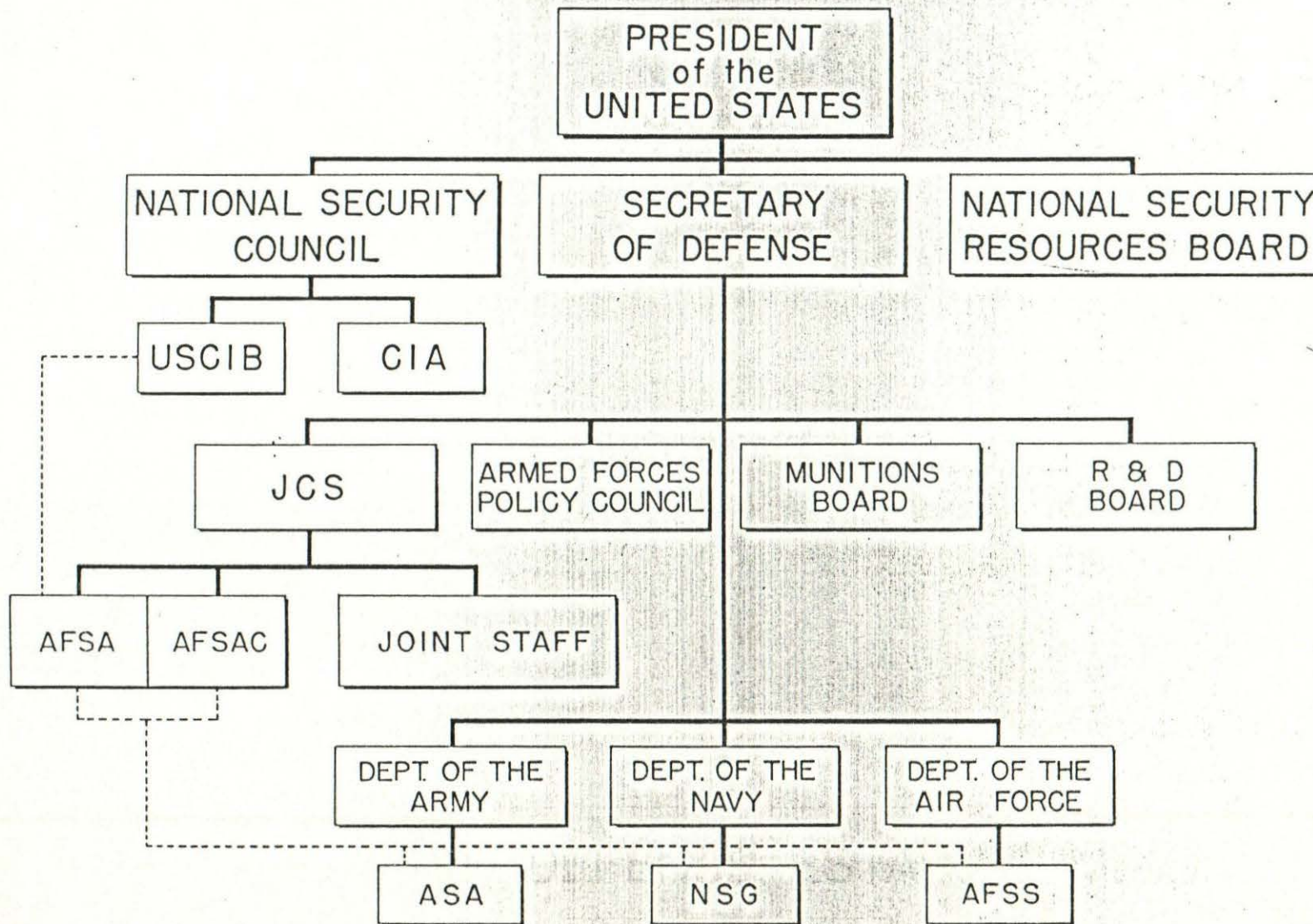
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Slide No. 6

ARMED FORCES SECURITY AGENCY - HEADQUARTERS ORGANIZATION

