

SRH-020

NARRATIVE
COMBAT INTELLIGENCE CENTER
JOINT INTELLIGENCE CENTER
PACIFIC OCEAN AREA



000753

UNITED STATES PACIFIC FLEET
AND PACIFIC OCEAN AREAS
HEADQUARTERS OF THE COMMANDER IN CHIEF

8 DEC 1945

~~TOP SECRET~~
~~ULTRA~~

From: Commander in Chief, U. S. Pacific Fleet.
To: Chief of Naval Operations.

Subject: Narrative of the Combat Intelligence Center,
Joint Intelligence Center, Pacific Ocean
Areas.

Enclosure: (A) Subject Narrative.

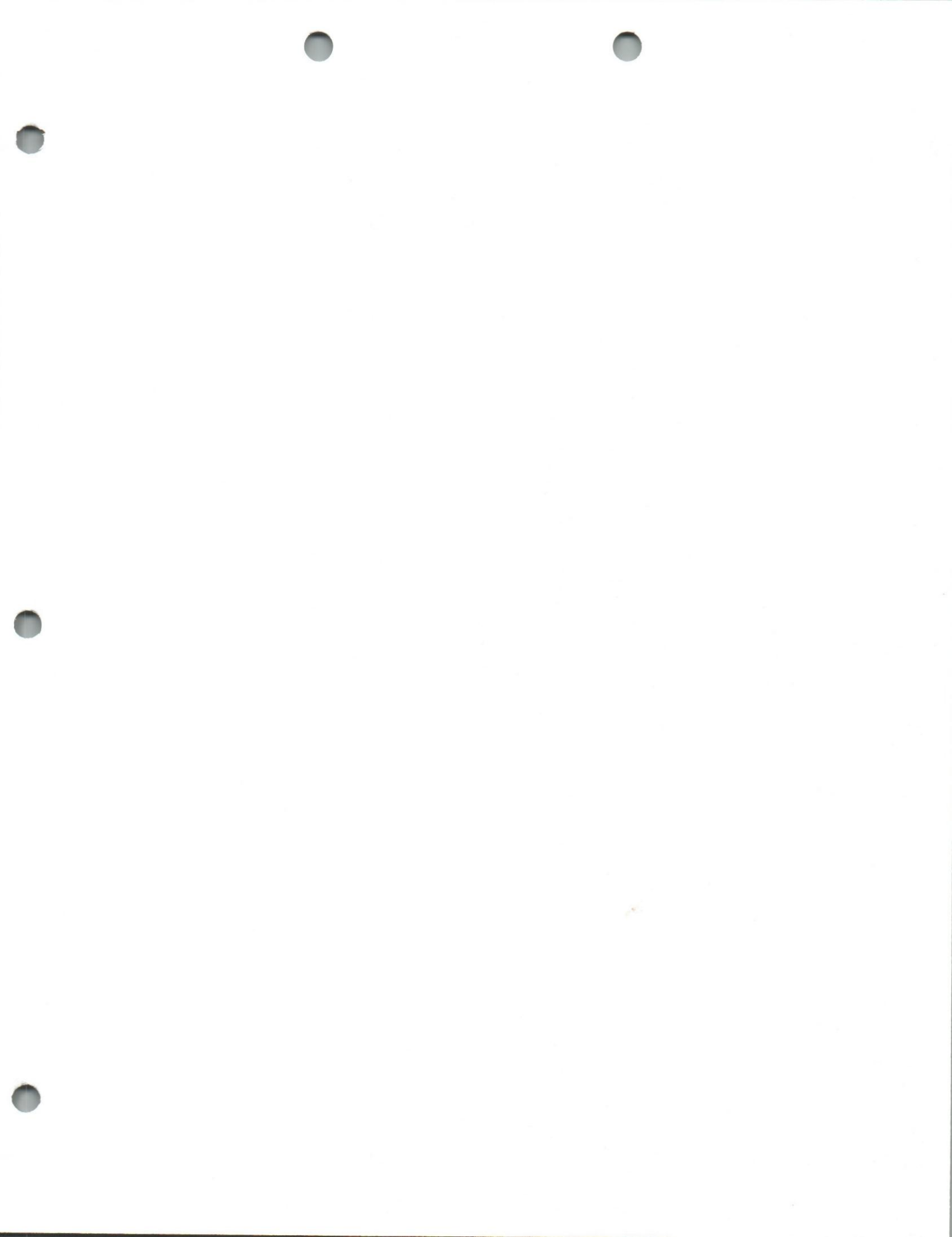
1. Enclosure (A), which was prepared by Captain
W. J. Halnes, U.S. Navy (Ret.), Deputy Officer in Charge of
JICPOA, is forwarded for information.

2. Captain Halnes had an unequalled opportunity
to observe and take part in the development throughout the
war of Intelligence for high command. He played an able
part in this development and his recorded observations and
opinions are therefore of unusual value.

C. H. McMorris
Chief of Staff

DECLASSIFIED per Sec. 3, E. O. 12068
by Director, NSA/Chief, OSS

Date: 7/31/78



~~TOP SECRET ULTRA~~

NARRATIVE

COMBAT INTELLIGENCE CENTER

JOINT INTELLIGENCE CENTER

PACIFIC OCEAN AREA

8 NOVEMBER 1945



The Combat Intelligence Center of the Joint Intelligence Center Pacific Ocean Area had its genesis in the creation of a Combat Intelligence section for the 14th Naval District. The term "combat intelligence" was then, and remained throughout the war, a term with so many diverse meanings that it was practically meaningless. It was intended, however, that Combat Intelligence Section would obtain information on and maintain a plot of all vessels at sea in the Pacific, Allied as well as German and Japanese.

The Combat Intelligence officer reported to the Operations Officer of the 14th Naval District on 11 June 1941. Until a secure place could be provided to maintain the plot, little could be done except to organize the many diverse sources of information needed for a peace time plot. In August 1941, Combat Intelligence moved with Radio Intelligence into the basement of the new wing of the 14th Naval District office building. The Combat Intelligence officer thereafter reported directly to Commander J.J. Rochefort, Officer-in-charge of 14th Naval District Radio Intelligence. For security reasons all of Radio Intelligence became known as Combat Intelligence, but the small combat intelligence section of one Lieutenant - USN Retired, and one yeoman maintained its identity within the radio intelligence organization.

A secure place was thus provided to maintain a plot. By degrees Combat Intelligence became a plotting center serving 14th Naval District activities and Cincpac. An overlay system of maintaining a daily plot on tracing paper was devised, and a copy of this forwarded Cincpac Operations each day. After war commenced the Patrol Wing conducting oversea searches was furnished with a plot of ships likely to be encountered in the area. Also a tactical plot of ships' movement in and around the Hawaiian Area was maintained to support identification of radar and sight contacts. From December 7th, 1941, a continuous watch was maintained, first on a watch and watch basis, and later, as more personnel was acquired, standing regular watch in three.

On the morning of December 7th, Combat Intelligence became the clearing house for all sorts of reports of enemy activity. One of the most difficult of the problems of training intelligence officers in peace times will be the impossibility of simulating flow of detailed, well authenticated and important misinformation. During the first forty-eight hours after the air attack on Pearl Harbor many well intentioned people must have made considerable effort to report what they thought they saw, but most certainly did not. The Japanese were reported landing near Barber's Point. Parachute troops had made landings on Ewa Plain and were in pitched battle with the marines. The uniform of these entirely mythical paratroopers was described in detail. Enemy submarines were reported in Pearl Harbor and to illustrate the difficulty of evaluation, some of the improbable submarine reports were true. Strange vessels were reported arriving in Lahaine Roads. A large enemy fleet was reported south of Kauai. A Marine

officer was reported to have seen a dirigible over Honolulu, two degrees to the right of the moon and three degrees below it. The RDF net obtained one bearing on the enemy fleet, but this was ambiguous, and tended to support other reports that the enemy was southwest of Oahu, a conclusion now known to be false. The experience of a few hours was enough to firmly implant a healthy mistrust of eye witness accounts. As the war progressed it was realized that this mistrust must be extended not only to excited civilians but to seasoned military and naval personnel of all countries - allied as well as enemy. The intelligence organization that cannot accept the heavy responsibility of selecting the elements of truth from the much that is false is practically useless.

In the last days of the peace and the early days of the war, Combat Intelligence performed a valuable service of a plotting center. This function had little to do with the services later performed by Combat. As was clearly foreseen, the comparative inaccessibility of the plot limited its value for war time purposes. Cincpac developed an operational plot of its own. The Hawaiian Sea Frontier assumed responsibility for maintenance of the tactical plot. The Port Director found it necessary to maintain a plot which he could show his convoy commanders. By April, 1942, it was possible to relieve Combat Intelligence of its duty of maintaining a plot of allied vessels at sea.

During the intervening time, Combat was developing along other lines. In peace time it had been possible to maintain track charts of Japanese tankers from data derived by decryption of weather reports. It had also been possible to obtain some indication of the intensity of Japanese naval effort by areas and this information was shown on the daily plot. After the war commenced, Japanese submarines were active in the Hawaiian and West Coast Areas. They could be tracked to some extent by radio direction finder fixes and partial solution of their call sign cipher. In addition, maintenance of charts and sailing directions made Combat the natural source of information of place names and later, in the identification of places by partially recovered names, frequently obscure and usually spelled in Kana. Thus Combat Intelligence underwent a slow metamorphosis.

After the transfer of the plot, the old Combat Intelligence section became a general information section for radio intelligence. The breadth and scope of the general information required for cryptanalysis is difficult to imagine without having been experienced. The demand for obscure place names and identification of names of places from which syllables were missing has been mentioned. The location and composition of our own forces at contacts that gave rise to enemy radio reports was another detail of information frequently demanded and, in times of radio silence, often difficult to obtain. Sometimes information of the most vital importance would appear to be within easy reach but would elude practically all attempts to get it. The planned bearing of Japanese carriers from Midway at the time of launching for attack remained for a long time obscured behind an unrecovered code group. This code group had been used in a Japanese radio intelligence

message reporting on U.S. broadcasts. The newspapers were the most potential source of reports of radio programs but the time and place of the broadcast were unknown. A file of local and some coast newspapers was hurriedly acquired for research but any thing like complete reporting of the broadcast was impossible to obtain. The vital bearing was meanwhile recovered from other data.

These were the days preceding the Battle of the Coral Seas and leading up to the Battle of Midway. Recovery of the Japanese cipher and code was snow-balling. The weight of manpower and organization was being brought to bear in Washington. The old Corregidor Unit was now operating at Melbourne. Contributions to the solution of the problem were being made on a world wide basis, but notably at Pearl Harbor. To this great triumph of radio intelligence the Combat Intelligence Section was then able to contribute little but the enthusiastic running of many errands. They were required, however, to read all incoming and outgoing radio intelligence despatches in order that the information contained therein might be made available. Thus they occupied a ring side seat for the drama of Midway that was rapidly being unfolded.

The factors that vitally affected the Battle of Midway were many and complex, but it is undoubtedly true that without radio intelligence it would have been impossible to have achieved the concentration of force and the tactical surprise that made the victory possible. Midway is one of the world's great decisive battles. If Midway had fallen, Hawaii might have become untenable as a great base. The Japanese lost the Battle of Midway and from there on in the Japanese Navy knew that it was doomed to ultimate defeat. Though the struggle was bitter, the inevitable tide of increased power and ~~the~~ increasing confidence of victory rose behind the Allied navies. As Japanese sea power was forced back and eventually crushed, the Japanese Empire, held together by lines of sea communication, was dismembered and conquered until their main citadel lay powerless before impending assault.

The number of people engaged in radio intelligence was rapidly increasing, but in these early days the "old timers" were still the important producers of results. The fate of the nation quite literally depended upon about a dozen men who had devoted their lives and their careers, in peace and in war, to radio intelligence. Eight** of these men worked in the basement of the Administration building.

Seven were naval officers and one was a marine officer. Of the seven navy officers, four had been passed over for selection. The other three received their promotion to Lieut. Commander a few months prior to the war. The officer-in-charge was Commander J.J. Rochefort, who had been first passed over in selection for Commander. Without his inspiring leadership, technical competence, unselfish devotion to duty and his personal example of untiring effort, it is doubtful that the full result could have been achieved.

** J.J. Rochefort, T.H. Dyer, J. Finnegan, A.B. Laswell, T.A. Huckins, W.A. Wright, J.A. William, J.S. Holtwick.

The career of _____ furnishes an object lesson. This officer had the personal misfortune to early exhibit genius in cryptography. This led to repeated assignment to that duty until his career became entangled in the rigidities of the promotion system. He was passed over for selection to Lt. Commander and was finally saved to the Navy by the somewhat dubious and arbitrary action of the Secretary of the Navy in designating him for Engineering duty only. By this means he achieved the rank of Lt. Commander a year after his contemporaries. What this may have cost in personal pride and remuneration can only be guessed. It is known that his choice of career was made knowingly, willingly and with open eyed evaluation of its ultimate effect. It is devoutly to be wished that the nation will never be so poor but that men will be found to make similar sacrifices. But the reliance on such sources of personnel is too nebulous to furnish a firm foundation upon which to build an intelligence organization. One of the first tasks of peace time intelligence organization will be to devise some means of insuring to intelligence specialists equal opportunity of promotion and recognition.

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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, spy and coast watchers' reports never supplied any important intelligence.

Just before the Battle of Midway there was a major Japanese code change. The period of darkness, when the major Jap code was not being read, extended well past the initial stages of the Guadalcanal campaign. After being accustomed to reading the enemy's mail, the denial of this information was acutely felt. During the whole war the enemy's traffic was consistently read in detail and in great volume. After the Battle of the Coral Seas, most of his major moves were disclosed through this source alone. Whenever the main code was not being read, a feeling of frustration and exasperation permeated the radio intelligence organization and spurred them on to each new success. Even during these periods the darkness was not complete. Much information was learned from traffic analysis short of decryption. Minor ciphers were usually being read. Frequently the information gained from the minor ciphers rivaled in importance that gained from the main naval code. Rather consistent success in breaking the weather code resulted in more and more reliance on an excellent Japanese weather observation system.

After the Battle of Midway it was disclosed in the press that information gained from "Breaking the Jap Code" had been of vital importance. Widespread discussions of the success of radio intelligence followed. An analysis of the Battle of Midway speculating on the part played by radio intelligence was published by a civilian naval expert in a magazine of national circulation.

It is difficult to believe that information of these discussions could have failed to have reached the Japanese

The code changes had preceded these disclosures, ^{but} after Midway Japanese communications were marked by increased security provisions. This was particularly marked in call sign ciphers and they became more and more difficult to follow even though captured lists were shortly to become available. As the two main branches of radio intelligence are mutually interdependent, difficulties with traffic analysis were reflected in increased difficulty with cryptoanalysis.

It is most fortunate that the Japanese remained convinced that the complexity of their naval codes and the inherent intricacies of the Japanese language defied successful cryptanalytic attack. Nevertheless, the disclosure of success dramatized the vulnerability of radio intelligence. Of all forms of intelligence, radio intelligence is most open to rapid and effective counter measures once the enemy is aware that their communication systems are insecure. All forms of intelligence, however, suffer from indiscrete disclosures of success attained and methods used. Press discussion of captured documents possibly led the enemy to the use of partially effective counter measures, and public disclosures of the importance and methods of photo interpretation probably induced the enemy to use more effective camouflage.

The press of the United States has always been an important source of information to the enemy. It has been so throughout our history. In war and in peace it can be expected that some newspaper will publish anything that makes a good story regardless of the ultimate cost of that story in blood and treasure. A high ethical standard on the part of the great majority will not prevent the story from being broken. In war, censorship may be partially successful but experience has proved that it is not completely reliable. In peace any attempt at control of the press is a cure worse than the disease for military as well as political incompetency flourishes under the cloak of secrecy. Intelligence must learn to accept these facts as part of the difficulties of the profession.

Something can be done by careful control of dissemination. The Army Special Branch System of primary distribution of radio intelligence material is a model for the Navy to follow. This system could be combined with Radio Intelligence Units Afloat. A radio intelligence officer should be assigned to the staff of each command regularly receiving ultra material. He would be supplied with intercept facilities as needed in each case. He should be a well trained intelligence officer to whom all ultra material, dispatch and officer messenger, is addressed. It would be his duty to assist in the collection and evaluation of this material, and to guard its dissemination within the command in accordance with rigid security provisions. As a necessary, though dangerous part of his duties he should be required to report to Washington any laxity in security in handling this material.

Although such a system may solve the problem of security within the staff of higher commands regularly receiving ultra, it leaves unsolved the frequent naval problem of passing on information

of great operational value to operating units not regularly so served. Frequently it is apparent that such information could come only from radio intelligence and there is no disguising this fact without robbing the material of value.

The Yamamoto story is illustrative of the danger in operational use of radio intelligence. When the message which led to the successful interception of Admiral Yamamoto was broken [by Lt. Col. Lasswell, USMC,] he instantly recognized the dangers involved in its use. Every fully indoctrinated officer who handled the material was likewise aware of the potential danger. The Fleet Intelligence officer was able to safeguard the information within the limits of his jurisdiction. That, however, was not the case in Guadalcanal. To be used in interception over the distances involved the information relayed to the actual interception forces had to in such detail that its origin could be easily guessed. The method of handling at Guadalcanal is unknown but after the successful interception of Yamamoto it apparently became common knowledge that success had depended upon radio intelligence. From Guadalcanal the story spread throughout the Pacific.

It is believed that if it could have been possible to have arranged for proper briefing of the personnel involved, the spread of rumor could have been prevented. It is significant that during the war, several thousands of men and women were working in the production of radio intelligence yet no leaks can be traced to any of them. Under the conditions then existing briefing by a qualified person probably could not have been arranged. However, if a number of "Radio Intelligence Officers", directly charged with the security of ultra material, had been on duty with high commands throughout the Pacific, it might have been possible to have flown one to Guadalcanal in time to have been some good.

There is another point brought out by this incident. Press censorship was apparently successful in keeping the Yamamoto story out of the newspapers during the war. The story was so widespread, however, that it could be foreseen that it would break as soon as censorship was relaxed. Under the circumstances an aggressive publicity policy might have been successful in minimizing the damage. If a story which explained the incident and covered the main known facts could have been well written and daringly told prior to the relaxation of censorship, it might have been possible to have minimized the damage. To handle a case of this kind in this fashion is dangerous and calls for exceptional ability and moral courage on the part of the releasing officer. It is suggested that an able public relations officer to handle all intelligence matter would more than pay his way.

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During the period preceding the Battle of Midway an increasing amount of radio intelligence became available. Combat Intelligence Section acquired the responsibility of keeping track of this information in order that it might be readily available.

This information was, of course, of great value in further attacks on Japanese communication. As the volume of decrypted traffic grew it became possible to locate more and more Japanese naval units and to discover many facts about their organization. To make the information available a weekly report of location of Japanese naval units was instigated.

In July the Fleet Intelligence Officer** became very much interested in these location reports. The result was a weekly report to Cincpac, detailing what was known of Japanese fleet organization and locations. These reports gradually increased in reliability and completeness and the system so started developed into the weekly ultra reports of locations. First emphasis was naturally on fleet location but later it became possible to spot Japanese air units and Japanese land force units. From these it became possible to estimate the enemy strength in various positions throughout the Pacific.

The system of reports so started became one of the main functions of Combat Intelligence Section. Weekly reports were made of the organization and location of all Japanese naval units down to and including destroyers and submarines. Estimates were later added of Japanese air strength and troop strength of the Central and South Pacific areas. These were accompanied by a general analysis of pending changes in air and troop strength. A separate weekly report was made of an analysis of the enemy's strength by areas and of his probable intention within each area.

All of this information, being derived ~~mainly~~ from radio intelligence was classified "Top Secret Ultra". The system of dissemination of ultra information lasted throughout the war with surprisingly little change. There was a constant flow of radio intelligence in the "Comb Circuit" between the main intelligence centers. For this traffic separate radio channels were provided. At Pearl, delivery of a copy of all traffic was made daily to the Commander-in-chief, Pacific Fleet. A pre-delivery report of urgent traffic or of information of more than usual interest was made by secure telephone to the Fleet Intelligence Officer**. The Fleet Intelligence Officer** was responsible for delivery of any intelligence to operational units. This was accomplished by his daily "Ultra Summary" dispatch addressed to certain high commands who alone held this channel. In emergency additional dispatches were sent out covering specific items of information.

Weekly location reports and other typed material was delivered by officer messenger. At first these reports were sent only to Cincpac. Later these were distributed to a selected list of high commands. Combat Intelligence section prepared these reports but the selection of the list to whom they were distributed was the responsibility of the Fleet Intelligence Officer**.

**This officer was [Capt. E.T. Layton.] His title was afterwards changed to Combat Intelligence Officer, CincPac-CincPoa, in keeping with his responsibility to Army and Marine as well as Naval Forces. The title of Fleet Intelligence Officer has been used throughout the report in order to prevent confusion.

This system worked well. The Fleet Intelligence Officer had closer contact with the operational personnel and was in a better position to control the distribution list than was the Combat Intelligence Section. Moreover, the intervention of an additional link acted as a further safeguard to the radio intelligence source of such information. The system needed only the addition of specially trained officers on each staff to control dissemination on the receiving end in order to be equivalent to the recommended Army system.

There was one general exception to this system of releasing information only through or with the specific approval of the Fleet Intelligence Officer. Early in the war, before the Battle of the Coral Seas, it occasionally occurred that specific information of value to submarines on patrol would be picked up by radio intelligence. Relaying this information through the Fleet Intelligence Officer took time and in some cases time was of considerable importance. Blanket authority was therefore granted by the Fleet Intelligence Officer for Combat Intelligence to deal directly with ComSubFor. When contacts were few this was arranged by the simple expedient of an officer from Combat Intelligence jumping into a car, driving over to ComSubPac and delivering the information in person to the Chief-of-Staff. Thus there were no written records and considerable pains were taken to destroy all record of these transactions.

When the volume of decrypted traffic increased, the amount of such information increased rapidly. At first our submarines were few and scattered. Often these submarines could be guided to important contacts by prompt use of radio intelligence. It required a knowledge of both the intelligence and the locations of the submarines on patrol. [Shortly after Midway, a minor Japanese cipher was broken in which routing of ships was given in great detail.] This was productive of the most satisfactory intelligence as far as the submarines were concerned, both as regards volume and accuracy. Submarine skippers were known to complain when a convoy was twenty minutes behind schedule and a change in routing came to be regarded as almost an unfair practice. As both the number of submarines on patrol and the volume of intelligence grew, an organization was created to handle it.

In December, 1942, the Submarine Force Operations officer (Lt. Comdr. Richard G. Voge) was fully indoctrinated, sworn to secrecy and permitted access to Combat Intelligence. Each morning he reviewed the previous days' Japanese traffic for information of value. The Submarine Force furnished Combat Intelligence with a daily overlay plot of the location of submarines. It could then be ascertained immediately if a recovered position could be utilized by any submarine on patrol. The Combat Intelligence Watch Officer rapidly became adept at recognizing intelligence of importance to submarines. Arrangements were made to pass this information to ComSubPac operation by secure telephone. ComSubPac and Combat Intelligence worked together in the greatest harmony and together perfected a smooth working organization.

Combat Intelligence was responsible for the early recognition of important spot information. When such a message was decrypted it was immediately plotted and the position checked for accuracy. This frequently required considerable work with the cryptographers ironing out inconsistencies, ungarbling garbles and working out probable positions by course and speed. When messages indicated important information could not be fully worked out from the copy intercepted at Pearl, appeal was frequently made to radio intelligence units at [Washington and Melbourne] for assistance. Information thus verified was passed to the Submarine Operation officer who assumed responsibility for its further handling. On his daily check of traffic the Submarine Operations officer obtained other information of value. Through enemy reports of submarine contacts he was able to keep better track of the location of his own submarines on patrol. He also, through this means, had ~~an~~ independent check of the results of attacks. Radio intelligence disclosed that a large percentage of submarine torpedoes were exploding prematurely or scoring hits without exploding at all.

Just how many submarine contacts were made through radio intelligence will probably never be known. Particularly in the beginning of the war, every effort was made to destroy all tracable connection between submarine operation and radio intelligence. However, it is known that the number of successful contacts rose and fell with the success of radio intelligence in decrypting enemy messages. On several occasions every submarine on patrol in the Central Pacific area was busy on information supplied by radio intelligence. From the intelligence viewpoint, the results were most gratifying. This was one form of intelligence that showed immediate tangible results. Sometimes it was only a matter of hours between decryption of a message and a submarine report of a successful attack. The news of these successes was immediately relayed to radio intelligence personnel who were responsible for the results. Thus everyone in the business felt they had a personal contact with the submarines on patrol and felt personal responsibility for the quality of the information furnished them. The effect of this on morale is difficult to overestimate. Combat Intelligence was deeply grateful for the opportunity to make its own small contribution.

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In September, 1942, the Intelligence Center, Pacific Ocean Area, came into being after a three month period of gestation. Combat Intelligence was actively concerned with the Intelligence Center in its early formative stage. Radio intelligence was a section of the Intelligence Center and Combat Intelligence continued its function of screening and passing on intelligence of an operational value. There was considerable improvement effected by the formation of the new Intelligence Center.

Early demands for "objective data" had been few. Several abortive plans to recapture Wake had been made and "Carlson's Raiders" required information on the Gilberts. To meet these demands, Combat Intelligence had compiled "objective data" folders on a few

of the most obvious places in the Central Pacific. Lack of personnel had severely limited the amount and type of information collected. The new Intelligence Center formed an Objective Data Section, which not only relieved Combat of that duty, and did it much better, but furnished a valuable repository of such information for feed back to radio intelligence. One officer of the Air Intelligence section of the Intelligence Center was loaned to Combat on a part time basis to continue studies on enemy air strength and order of battle. He prepared the air section of the weekly report. A Marine officer was likewise made available to make studies of enemy land forces. Thus the preparation of these two sections of the location reports were put into hands of experts who later became members of Combat.

Combat Intelligence now performed the function of exchange agency between radio intelligence and other sections of the Intelligence Center, and between all sections of the Intelligence Center and the Fleet Intelligence officer and ComSubPac. Drawing from all sources it prepared the weekly estimates and disseminated them as directed by the Fleet Intelligence officer. In general, it was closest to radio intelligence, functioned directly under it and continued to collect all sorts of information required by radio intelligence.

With the formation of the Intelligence Center, intelligence in the Pacific Ocean Area was well on the way to a logical, effective organization. Prior to this time there had been no dearth of intelligence organization in the Hawaiian Area but none was capable of the production and distribution of the vast quantity of intelligence material necessary to support offensive operations. There had been no organization to produce the great volume of maps, charts, information booklets, data on enemy material and general information of the enemy. The existence of this condition was not peculiar to the Hawaiian Area.

Radio intelligence had been, and continued to be, phenomenally successful in its field. The Fleet Intelligence officer was efficiently collecting and disseminating intelligence of immediate operational importance. The 14th Naval District Intelligence officer had an organization almost entirely engaged in counter intelligence. The corresponding Army branch of Military Intelligence was likewise engaged. F.B.I. was in the same field. F.C.C. had a so-called radio intelligence organization apparently mainly engaged in assisting Army and Navy in homing lost aircraft. For the most part, the old line organized intelligence services were engaged in counter intelligence work. And this was so, not only in Hawaii, but throughout the nation.

The reason for such a condition lies deep in the psychology of the American people. In the two decades prior to the war, the United States was apparently unable to conceive of a war in which it would be necessary to seize territory and press home an attack to victory. Responsible officials made recommendations for classifying all weapons as either defensive or offensive with international ban to be placed on the latter. Even when the nation began to be aroused to the danger of war, workmen in munition plants were termed "defense

workers". No possible expenditures of effort or funds could be made for military purposes unless it was labeled for defense.

The effect of this thinking on the development of military and naval intelligence dramatically demonstrates the influence of national thought and propaganda upon the military institutions of a democracy. Both naval and military intelligence became almost entirely occupied with defense against the intelligence efforts of potential enemy countries. Thousands of young men entered the service, were given some training in police methods and assigned to duty as investigators, counter-espionage agents, security control officers, censors and the like. While no attempt is made to disparage these efforts, it is earnestly contended that the preoccupation of the intelligence organization with counter intelligence duties stultified the growth of an organization devoted to obtaining information of the enemy.

These conditions are most likely to occur again. Efforts to correct them are more important than a study of the facts surrounding the operation of any single service or unit. That a counter intelligence organization should exist cannot be gainsaid, but it is important that its organization should be independent of the efforts to collect and codify information of the nation's potential enemies.

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By the fall of 1942, the volume of radio intelligence messages had grown to such proportions that changes in the method of handling became necessary. Prior to that time Comdr. Rochefort had personally written out and filed each outgoing message on the Comb Circuit. This system had many advantages but it now became a task greater than one man could handle. This function was assumed by Combat Intelligence Watch officers. To do so it was necessary to keep track of the information already transmitted or received. A visual card system had been used for classifying this type data but under the increased volume that system failed.

Based upon an oral description of the system in use in the Washington Radio Intelligence unit a multiple filing system was devised. The filing system, later known as the GI system, became of great importance as the background of rapid research on a multiple of topics. By the ditto process a number of copies of each message was produced on five by eight sheets of paper, usually referred to as "cards". These were filed in open boxes under every conceivable heading. They were filed under name of ships occurring in the message, under place names, by date-time groups, by dates occurring in the message, by names and numbers of Japanese units and by such special headings as "Code Changes", "Erratic Torpedoes" or any other useful subdivision that could be invented. Found in "daily books" they also permitted rapid review of the previous day's work by the several interested parties. Later, many items other than radio intelligence was "carded and filed".

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In April, 1943, both Radio Intelligence and Intelligence Center, POA, had outgrown their quarters and together they moved to the building occupied by FRUPAC at Makalapa. Capt. W. E. Goggins had by then replaced both Comdr. J. J. Rochefort as officer-in-charge of Radio Intelligence and Capt. R. H. Willenkoetter as officer-in-charge of the Intelligence Center.

The move to new quarters was accompanied by a major change in function of Combat Intelligence. The task of preparation and release of radio intelligence messages on the "Comb Circuit", together with the job of carding and filing, was split off from the rest and became the GI section of Radio Intelligence. The rest of the old Combat Intelligence Section became Combat Intelligence Center. The relationship of GI and CIC continued to be the closest. CIC used GI files for research and furnished certain reciprocal services for GI. Also, because they were in the same building, cooperation with the other sections of the Intelligence Center became easier. Particularly during this period CIC owed much to the sound judgment and enthusiastic support of Captain Goggins.

This was the last major change in the function of CIC. Considerable expansion took place later and new services and sections were added but in general its tasks remained as then determined. Four watch officers maintained a continuous watch. These officers had private and secure telephone communication with the Fleet Intelligence Section, with ComSubPac Operations and with all sections of radio intelligence. It was the primary duty of this watch to pick up important urgent intelligence from the radio intelligence organization and relay it immediately to either Fleet Intelligence or ComSubPac. They also processed the "daily book" of all radio intelligence for CinCPac, investigated or conducted research on request of CinCPac, obtained operational information for radio intelligence and in general made themselves useful in this exchange of information between all parties. In addition, each watch stander was required to specialize in a certain field. One paid particular attention to enemy destroyers, their movements, employment and organization. Another performed the same service for Japanese submarines. One officer specialized in movement and losses of Japanese merchant ships. Their studies were the basis of the "Weekly Report of Locations of Japanese Naval Vessels" and "Estimate of the Enemy Intention". The head of the air section of I.C.F.O.A. spent a large portion of his time in CIC preparing "Weekly Estimate of Location of Japanese Air Forces". The head of the land force section of I.C.F.O.A. performed a similar service concerning Japanese Land Forces. All reports were edited and compiled in CIC. They were disseminated in accordance with direction of the Fleet Intelligence Officer to the operation forces, Army, Navy and Marine, strictly on a need-to-know basis.

To aid in spotting intelligence of operational importance a daily plot was maintained. On this plot was shown courses and position of enemy naval and merchant vessels, all contact reports, important RDF fixes and the general major movements of U.S. forces. The plot was of considerable use to radio intelligence personnel and the watch officer stood ready to brief officers as necessary

on what was going on in the war. Information likely to be of use to submarines was check plotted before being passed on.

Distribution of the weekly reports was strictly limited by security provisions. As the time approached to commence offensive operation on a large scale, these reports had to be supplemented. In September, 1943, a series of weekly reports were originated, giving general information on "Enemy Strength in the Marshalls and Carolines". This report went to Battleship, Carrier, and Cruiser Division Commanders and to Commanders of Army and Marine divisions involved in commencing operations. It was classified Secret, later being changed to Top Secret. This weekly Secret or Top Secret report continued until the end of the war, changing the areas covered and distribution list as necessary. At the end of the war the distribution was approximately one hundred copies each week.

On September 7, 1943, I.C.P.O.A. became Joint Intelligence Center Pacific Ocean Area. Colonel (later Brigadier General) J. J. Twitty became Assistant Chief-of-Staff for Intelligence on the Staff of CinCPac-CinCPOA and simultaneously officer-in-charge of JICPOA. Later, the Radio Intelligence Section of JICPOA became Fleet Radio Unit Pacific and was removed from the jurisdiction of intelligence and placed under communications. Captain W. E. Goggins remained as officer-in-charge of FRUPac. The Combat Intelligence Center became a part of JICPOA in the shuffle and its direct connection with Radio Intelligence ceased. It remained, however, in FRUPac building until the end of the war.

Although there was an administrative gulf now between radio intelligence and CIC, actual functioning of CIC was changed very little by the organizational changes that had taken place. Complete cooperation continued between FRUPac, JICPOA and the JICPOA subsidiary, C.I.C. That such was the case is a tribute to the tact, ability, and cooperation of both General Twitty and Captain Goggins. No good argument against the correctness of the decision to separate radio intelligence from other forms of intelligence, under the conditions then existing, can be advanced. Naval communications and naval communications alone had the officers with the talent necessary for the proper development of radio intelligence. It was necessary to get on with the war with the best means available and to shelve any theoretical arguments. Now that peace has returned, however, these decisions could well be reviewed. Radio intelligence needs complete cooperation with intelligence as well as with communications. Its product needs to be integrated with the whole mass of intelligence. It will sooner or later need the service of a far reaching intelligence agency to direct it toward its proper target and to govern the scope, time and area of its coverage.

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During the planning stages of the Gilberts campaign CIC acted as information agency for the planning staff at Pearl, particularly for CinCPac-CinCPOA War Plans. Contacts were more or less on an informal basis, studies being made as requested by each

planning staff. For the Marshalls Campaign, however, a formal Estimate of the Enemy Situation was produced early in the planning stages. This was supplemented by a special modifying report dead-lined as close as possible to the sailing date of the operational forces. This system was continued throughout the rest of the war. Estimates of the Enemy Situation were produced for all major campaigns and strikes. These estimates included estimates of enemy land, sea and air strength in the areas of operation and adjacent areas, an estimate of the strength available to the enemy for reinforcement, estimates of the enemy's probable reaction, and any special information of importance. Included in the latter category was usually a diagram of the enemy's probable air searches. Notably in the Marshalls Campaign it was possible through radio intelligence to accurately predict the enemy's air search and to watch and report any changes as this operation proceeded. How much value this was in making the undetected approach to Kwajalein has never been officially assessed. Data on enemy mine fields was also included in these estimates, and furnished a basis for planning approach and sweeping plans. X

Early in 1944 it became apparent that considerable information was being collected on enemy mine warfare. Messages disclosing the existence of enemy mine fields were accumulating in radio intelligence files and in captured documents. A mine warfare officer was therefore added to CIC; and extremely able young officer who had had experience in the European theatre. This officer was able not only to collect mine information, he also furnished intelligence personnel and translators with information in the technical aspects of mine warfare and assisted them in recovery of further information. At the war's end information on enemy mine fields was found to be in a very satisfactory condition. This intelligence was of immediate importance to submarines, but later, as the war closed in around Japanese held waters, mine intelligence became of utmost importance to all operational forces.

At about the same time it became advisable to add to CIC one officer whose sole duty was Japanese submarine warfare. Japanese submarines were never the serious problem in the Pacific that German submarines were in the Atlantic. Partly this was due to their employment, but a list of Japanese submarine losses furnishes ample explanation. It was found by experience that one officer had ample time to collate all the submarine information. He was able to keep track of Japanese submarine movements, their building and their losses. In addition, he ran a general plot of all Japanese submarine activity, drawing on radio intelligence, radio direction finder fixes, and sighting reports. The first was always the most reliable source of information. The plot so kept was frequently taken to CinCPac-CinCPOA Anti-Submarine Warfare Officer to keep him informed of impending submarine activity. This was productive of several important successes. In May, 1944, a Japanese submarine commander's radio operation order was intercepted and partially decrypted. Subsequent plotting and additional decryption supported by this plot, yielded fairly reliable information on the position of the patrol line to be established by the operation order. The

intelligence was gained in sufficient time to have a carrier anti-submarine group ordered out to operate against the patrol. USS England sank five of the seven submarine involved. It is quite possible that this result could have been achieved without a special anti-submarine intelligence officer. On the other hand it is also possible that the early information would not have received so much attention had there been no such officer.

Prior to the summer of 1944 there was no Army participation in CIC, although some of its products were distributed to Army operational forces. It must be frankly admitted that during the early years of the war, the Naval Communications organization had no confidence in Army security measures. This lack of confidence was firmly based on past experience. By 1944, however, the Army had organized the Special Branch of MIS. Liason had been arranged between Special Branch and Naval Communications Intelligence at Washington. Some Army intelligence began to reach CIC over Naval systems. By this time it had become apparent that Army Intelligence would be of utmost importance in the Central Pacific. This was particularly true of the Japanese Army Air Force. After the Marianas Campaign any air estimates made without full information on Japanese Army Air Force deployment would not be realistic in nature. Special Branch had the best information available. Examination of the Special Branch organization convinced even the severest critics that their security regulations were every bit as sound as the Navy's and that in regards control of dissemination they were better. The way was then open for direct Army participation at Pearl.

The first Army contingent consisted of four officers. Three of these were concerned with estimates of Japanese land force strength. They took over the tasks of preparation of Weekly Estimate of Enemy Land Forces, and assisted in the preparation of other reports. The fourth officer worked with Japanese Army Air Forces and assisted in the preparation of Weekly Air Estimates. These arrangements were successful from the start. All the officers were exceptionally well trained in their specialties. They earned a reputation as hard workers in an organization that rather prided itself on its hard work schedule. They were tactful. In all the time Army personnel worked in CIC there never was the slightest hint of inter-service jealousies.

More than these personal factors, however, the Army's assimilation into CIC depended upon the proven worth of the contribution they were able to make. [Through the Special Branch system of Communication, CIC was in touch with all special branch intelligence agencies through out the world. An Army message center was finally set up at FRUFac to handle Special Branch Communications. CIC could, and frequently did, call on Special Branch War Department G-2 to check, verify, or amplify intelligence required for estimates, or to conduct special research for its benefit. Through the special security officer, material could be distributed to Army forces as required with complete confidence in its proper handling and security. Much background material and many analyses were received from Special Branch by officer messenger. Army Communication Intelligence service to CIC was thus fully on a par with

Naval Communication Intelligence.

The importance of this combination, in one room, and under a unified direction, of all the varied requisite source of intelligence; backed by two world wide communication services, and able to draw on the multitudinous source of JICPOA can hardly be overestimated. When estimation of enemy strength was made it could be done with the assurance that all of the best information was available. Moreover, it was found that Army and Navy information supplemented each other in many ways and that the result was frequently much greater than the sum of its parts. Experience so gained is the basis for the conviction that neither the Army nor the Navy can maintain independent intelligence agencies capable of complete exploitation of all available material necessary to produce intelligence to support planning for operations. Liaison and exchange of information is not enough and only when the intelligence organizations are fused together is one insoluable whole can higher echelon intelligence exert its best efforts.

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Procurement of naval personnel for CIC was always a difficulty. In the early stages of the war there was no adequate source of officers trained for this kind of work. It was general practice to pick a likely candidate and let him work up from assistant, to watch officer, to estimator, - a rather lengthy process. The type of work performed fostered high morale and this insured permanence of personnel. In late 1944, however, a new factor intervened. Certain important operational commands became aware that Combat Intelligence Center was a potential source of officers with exactly the type training and experience they desired. It was always the policy to furnish these officers when needed regardless of any attendant difficulties. The drain on personnel, however, forced Combat to enter into an avowed training program.

In this situation the F-22 section of Cominch staff lent able support. Relations between CIC and the F-22 section on Cominch staff had always been most cordial. Information was freely exchanged and CIC profited much by this exchange. Key officers from F-22 came to Pearl for temporary duty and exchange of ideas whenever the opportunity was afforded. Advantage was taken of lulls in the Pacific War to send CIC officers to Washington for temporary duty with Cominch for the same reason. When a shortage of trained officers threatened, F-22 selected a few officers for training, upon completion of which they were ordered to Pearl. This alleviated the situation considerably.

The need for trained officers was, however, growing. ComDesPac suggested the instigation of a training program at Pearl to act as a pool of trained intelligence officers for duty afloat. It was undesirable to expose ship's intelligence officers to ultra information that would not have access to afloat. JICPOA, therefore, formed an Operational Intelligence section to supervise the additional training of operational intelligence officers. Arrangement was made with Advanced Naval Intelligence School to allocate to JICPOA ten to fifteen officers from each of their grad-

uating classes. These formed a pool from which intelligence officers were ordered or needed. On principle of "earn while they learn", these officers were assigned to the various working sections of JICPOA while they were awaiting reassignments. Thus, they became familiar with Pacific geography, the characteristics of Japanese forces, and the source of intelligence material before they went to sea. From the pool, officers were selected for training as CIC watch officers. When the training was complete, they were assigned, on demand, to the staffs of commands who were regularly receiving ultra information. In this way it was expected to eventually have, on each important staff, an officer who was fully indoctrinated in handling of ultra material and who was experienced in its evaluation.

In an informal way CIC also assisted in the training of Army Special Branch officers. The central location of Pearl made it possible to have Special Branch officers, destined for duty farther afield, stop off at CIC for anything from a few days to a few weeks temporary duty. While there they became acquainted with the Command set-up in the Pacific, the sources of intelligence, the means of distribution, and the general geography of the field of operations. Also it became the practice to assign Special Branch officers who had had experience in CIC to Army organizations that were taking the field. Vacancies in CIC thus created were filled by Washington. This arrangement was advantageous all around.

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In early 1945, planning commenced for mining of Empire waters by B-29's based in the Marianas. Special reports were requested from CIC to 21st Bomber Command to assist them in selection of mining targets and in evaluation of the mining effort. In February a system of weekly reports was commenced designed particularly for those who needed mine warfare intelligence. It developed that naval intelligence has the best information on exact routing of enemy vessels while Army intelligence had the most information on volume of shipping and of the economics of transportation routes. An Army officer was added to the mine warfare intelligence section to assist in the preparation of special mining reports.

As the mining program progressed it was possible mainly through radio intelligence to make timely reports on the effectiveness of mining operations, reports on ships sunk or damaged, effectiveness of sweeping operations, closing of swept channels, and a multitude of other information in support of the mining program. The weekly mine warfare report (called Fox report) then became of interest to many commands other than the 21st Bomber Command and its distribution list grew. It was maintained on the top secret ultra security level. Also by almost imperceptible degrees it expanded into the entire field of enemy transportation, land and sea, as a target. This in turn led to the inclusion of general spot target information. A target analyst was added to the mine warfare section and toward the end of the war the Fox report was becoming a general target analysis report. For example, the successful bombing of the Korean railroad system of river bridges was under-

taken on the basis of information supplied by this report.

In June 1945, the duty of compiling and disseminating information on allied as well as enemy laid mines was assigned to the mine warfare section. Two Wave officers and a Wave yeoman were added to the section for compiling and preparing these reports. These additional personnel were required because the sources of information, the presentation of data, and the files that must be maintained for compilation of allied mine reports were entirely different and additional to those required for enemy mine intelligence.

When CinCPac Advanced Headquarters were established on Guam in early 1945 several officers were transferred from CIC to the Fleet Intelligence Office at Guam. A direct communication channel was established between CIC and Fleet Intelligence Guam, and the relationship between the two offices continued with a minimum of disturbance due to their physical separation.

Another readjustment was necessitated by the move of ComSubPac to Guam. Practically coincident with this move, CIC acquired the responsibility of furnishing ComSubSoWesPac operational intelligence. Two officers with submarine experience were added to CIC to screen all material for submarine intelligence. A special communications channel held only by ComSubPac, ComSubSoWesPac and FRUPac was acquired. By this means the special service of CIC to the submarines was maintained with no interruption.

In April, 1945, the Air Estimate Group from CIC was transferred to Ragfor at Guam. This move became necessary in order to properly utilize enemy traffic being intercepted at Guam and available there before it was at Pearl. Closer physical proximity also stimulated close cooperation between the Air Estimate Section and the operating forces at Guam. This was particularly true of the Strategic Air Force which Air Estimate section was now able to serve with estimates of enemy fighter reaction and other intelligence tailored for each mission. Estimates of Enemy Air Strength were distributed directly from Guam after the move.

For the duration of the war, Combat was engaged in the production and processing of intelligence of high classification for higher command echelons only. The most timely, and the most important part of this intelligence, was produced by radio intelligence. However, Combat could never have functioned smoothly without the support of the other sections of JICPOA. Much information was derived from captured documents, from photographs of enemy territory and from enemy captured equipment. This information was not only collated with radio intelligence, in many instances it helped produce more radio intelligence. Also, and probably more important, the wide distribution of lower classification intelligence effected by the JICPOA organization built a firm foundation of knowledge of the enemy throughout the Armed Forces of the United States and Great Britain. With this as a background the higher classification material had a significance it could not otherwise have achieved.

At the end of the war there were 38 officers and 12 enlisted men attached to CIC. This included Army and Navy officers attached either to CIC or its forward component of Air Estimate at

Ragfor, Guam. It included Estimate Section, Mine Warfare section, and the Watch Officers section. Several officers in a training status waiting for assignment to the fleet are also included. Immediately after the end of the war, as soon as it was ascertained that landings in Japan would be unopposed, deflation of CIC commenced. By 1 November, there were four officers attached.

CONCLUSION

1. Naval Intelligence should be entirely concerned with collection and dissemination of intelligence of potential enemies of the United States. It should obtain and disseminate all possible information on the armed forces of all foreign countries, their organization, strength, disposition and readiness for action, together with the geographic, climatic and economic factors that would affect operation in all possible theatres of action. This is a large and difficult task. If naval intelligence organization is also charged with "domestic intelligence" there will be a strong tendency to concentrate effort in that field to the detriment of "foreign intelligence".
2. Ample experience has demonstrated that neither Army Intelligence nor Naval Intelligence is complete without the other. On theatre and higher level, joint intelligence is necessary. Liaison and interchange of information is not enough to secure complete exploitation. Complete merger of Army and Naval Intelligence is necessary. Only in the field or at sea can intelligence afford to be exclusively Army or Navy.
3. The magnitude of the task facing intelligence in the postwar world is so great that it points to the necessity of the formation of a national intelligence agency, combining the facilities of the Army, Navy and State Department's Intelligence collection facilities. The United States has depended upon great ocean spaces to hold off its enemies until it can gather its ponderous and overwhelming strength. The development of the atom bomb and long range aircraft has nullified these safeguards. The task of adequately forewarning the nation can only be performed by an efficient intelligence organization. The difficulties confronting the formation and continuance of such an organization in a country like the United States are almost insurmountable.. The continued existence of the nation may depend upon how well this problem is solved.
4. The training of competent intelligence officers is one of the first tasks confronting Naval Intelligence. These officers should be thoroughly grounded in naval science, familiar with all intelligence sources, thoroughly versed in the capabilities of potential enemies, indoctrinated in the conflicting demands of security and dissemination and, in the higher echelons, competent to direct collection and intergradation of intelligence material. The experience gained by intelligence officers in the field should be the basis of their training. For a selected few, intelligence should be a lifetime career.

5. Radio Intelligence must be inter⁺graded with other forms of intelligence. Radio intelligence should be a joint Army and Navy function.

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