SRH-268

ADVANCED INTELLIGENCE CENTERS

IN THE

U. S. NAVY

JUNE, 1942

DECLASSIFIED per Part 3, E. O. 12355 by Director, NSA/Chief, CSS Date: 6 January 1984

REVIEWER'S NOTE:

The first review of this document was conducted by personnel of the U. S. Navy. The original classified versions were retained by them and have been placed in the NSG Repository, Crane, Indiana

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NAVY DEPARTMENT OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON

June 20, 1942

MEMORANDUM FOR ADMIRAL F. J. HORNE.

Subject:

Radio Intelligence Organization.

Reference:

- (a) CinCpac secret ltr. 0116 W of May 28, 1942.
- (b) Cominch end. to ref. (a), dated June 12, 1942.
- 1. Through the piping times of peace extending over a period of some twenty odd years Radio Intelligence struggled and was never allowed out of the closet. Politically it was illegal to have such an organization and for any one to devote his time to the subject was committing professional suicide.
- 2. Now that the war is in being many activities are desirous of having a finger in the pie. You are familiar with those outside the Navy proper. The following will be confined to organization within the Naval Service.
- jurisdiction of ONI. Whether Radio Intelligence should be directly under ONI is a moot question. Basically such seems to be sound, i.e., all Intelligence activities be consolidated and headed up under a single director. On the other hand, practically, there are many objections. Simply one might say they just don't speak our language. The intercept material must be obtained by operators trained in the Kana code. The source of the operators is Naval Communications. Never has this service been up to allowance, and any operators so diverted and trained have been at a sacrifice. Again the intercept equipment belongs to Communications which is responsible for its technical characteristics, procurement and upkeep. Also, the question of traffic analysis involves personnel and only those familiar with radio communications can properly administer this work.
- 4. Correlated with this work is the D.F. organization. which is entirely a matter of radio communications. And in the background of all this is the communication network and cryptographic aids involved in the world-wide exchange of intercept information. Further recent developments which contribute to Radio Intelligence are:
 - (a) TINA. This is the process of identifying enemy radio

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radio operators by the inherent characteristics of their hand-sending of the radio code. It is a rather intricate process involving tape recordings, accurate measurements and mathematical analysis.

- (b) RFP. This is a process, called radio fingerprinting, of identifying enemy ship radio transmitters by the characteristics of the emission from the particular transmitter. It involves excellent receiving conditions on shore, oscilloscopes and high speed photographic equipment.
- (c) Distance measuring to enemy transmitters by use of ionospheric data. This is accomplished by mathematical computations enhanced by complete knowledge of the performance of radio waves which vary through the period of the sun spot cycle, the seasons and diurnal changes. These functions are new, and are being developed here, and just at this moment the nucleus for two TINA units is being transferred from Operations to Com 14 and Bainbridge Island to commence efforts in the Pacific. Units for the others will follow as soon as personnel are trained and the processes are perfected. It is obvious that these functions must also be performed with personnel familiar with radio and communications.
- 5. Thus my conclusion is that Radio Intelligence cannot thrive and function efficiently except under direct control of Naval Communications. If this conclusion is accepted as sound, then there seems to me to be something lacking in the organizational setup. Who controls the outlying stations? The intercept station at Cheltenham is under the DNC; that at Bainbridge is under Com 13; that at Honolulu is under Com 14; and that at Bellconnen (Melbourne) is under Comsowestpacfor; and what control is exercised by the Army by virtue of unity of command is unknown.
- Under Com 14 direct control of the Radio Intelligence Unit has been, by virtue of seniority, in the hands of an ex-Japanese language student (a Commander). On CinCpac's Staff the intelligence received from the Com 14 Radio Intelligence Unit is handled by an ex-Japanese language student (a Lt. Comdr.). They are not technically trained in Naval Communications, and my feeling is that Radio Traffic Analysis, Deception, and Tracking, etc... are suffering because the importance and possibilities of the phases of Radio Intelligence are not fully realized. The unit in Melbourne is in charge of an officer who was trained in the Radio Intelligence Section here, and I am advised the coordination, standardization and realization of combined radio intelligence unit objectives worked out more smoothly in the Melbourne Unit than in the Com 14 Unit.
 - 7. Strong people should be in strong places, and I do

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not believe the Pacific organization is strong because the administration is weak in so far as Radio Intelligence is concerned. I believe that a senior officer trained in Radio Intelligence should head up these units rather than one whose background is Japanese language. They should confine their activities to Intelligence as such, i.e., the product of Radio Intelligence.

- 8. I am attaching hereto some additional background material prepared by Op-20-G which he was preparing for you, and which he now requests be relayed to you along with my memorandum.
- 9. In the interest of immediately improving this situation I suggest that 20-G make a quick trip to Honolulu to get first-hand information on which to base recommendation for remedial action.

Respectfully,

Joseph R. Redman

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In reply refer to Initials and No. NAVY DEPARTMENT
OFFICE OF THE CHIEF OF NAVAL OPERATIONS

Op-20-G (GA/jac)

WASHINGTON

JUN 20 1942

MEMORANDUM FOR VICE ADMIRAL F. J. HORNE:

Subject:

Establishment of advanced intelligence centers.

References:

- (a) CinCPac secret ltr. 0116 W of May 28, 1942.
- (b) Cominch end. to ref. (a), dated June 12, 1942.
- Reference (a) points to the definite need of organizing an intelligence service in Pacific Ocean areas which will insure the collection, evaluation, and dissemination of intelligence. It points also to the inadequacy of the present intelligence section of CinC United States Pacific Fleet staff. To meet requirements the establishment of an intelligence center under the CinC Pacific Fleet is recommended and certain specific proposals are made with regard to functions to be performed and radio intelligence personnel required.
- 2. Reference (b) directs that high priority be given to the establishment of an intelligence center at Pearl Harbor and that plans be made and necessary materiel obtained for the establishment of additional subsidiary intelligence centers in the north and south Pacific Ocean areas.
- 3. In 1937 the existing radio intelligence organization was carefully surveyed and a thorough analysis was made of war requirements in the Pacific. As a result of this study it was decided to maintain the following units:
 - (a) A major analyzing and administration center (for coordination of activities, training, advanced research along theoretical lines, and cryptanalysis of diplomatic, naval attache, and miscellaneous communications) directly under the Chief of Naval Operations (Washington).
 - (b) A major analyzing center (for cryptanalysis of purely naval traffic) in an advanced location which can be held indefinitely (Pearl Harbor).

- (c) A minor intelligence unit (for traffic analysis in naval communications) in a more advanced location which is well protected and can be held for several months after the outbreak of war (Corregidor).
- (d) A mobile unit with the U. S. Fleet (CinCUS).
- (e) A mobile unit with an advanced detachment of the U. S. Fleet (CinC Asiatic).
- 4. The foregoing organization was essentially that in effect at the outbreak of war. The U. S. Fleet mobile unit in the Hawaiian Area was operating with the major analyzing center at Pearl Harbor. The mobile unit assigned to CinC Asiatic was operating with the intelligence unit on Corregidor. This situation continued until the fall of Corregidor, immediately prior to which the unit operating there moved to Melbourne, Australia, where it joined forces with the Australian unit.
- This organization was created with the idea that there would be an offensive war in the western Pacific. This, of course, did not materialize, and after the outbreak of war it was quickly realized that the advanced unit on Corregidor could not be maintained and the entire load of work in the Pacific would fall upon Pearl Harbor. The latter was not only unequipped to carry the entire load but was exposed to extinction through improper protection against bombing attack. Immediate action was, therefore, taken to back up Honolulu by making the Washington Center an active intelligence unit and assuming there as much Naval work as could be taken on. In addition, the radio intercept stations on the West Coast were diverted from their previous assignments and placed on Japanese Naval traffic.
- As the situation now stands, the former Corregidor unit, now operating at Melbourne in collaboration with the Australians, constitutes the advanced unit for combat radio intelligence in the southwest Pacific Area and Honolulu constitutes the major combat radio intelligence center in the central Pacific Area. Washington acts as a back-up for these two units and supplements their work in every possible way. The three units are very closely coordinated and are operating effectively within their limitations of personnel and necessary facilities. Actually, through a complete exchange of all intelligence and technical information they provide mutual support

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to the extent of functioning in effect as a single unit. This organization has stood the test of war and is believed sound. It should be augmented along present lines rather than reorganized.

- 7. Any attempt to transfer activities now being carried on in Washington in support of the Pacific centers at this time would interfere seriously with operations and result in a decided loss in general efficiency. The problem of obtaining intelligence from enemy communications has become extremely complex. Certain of the studies can only be made at a center which has full facilities such as Washington for the reason that much collateral information is required and large numbers of skilled persons and expensive, complicated machinery are needed. Experience has indicated that units in combat areas cannot be relied upon to accomplish more than the business of merely reading enemy messages and performing routine work necessary to keep abreast of minor changes in the cryptographic systems employed.
- Strenuous effort is being made to build up the existing organization as rapidly as possible. The Washington unit, which consisted of approximately 240 persons in the middle of February now has about 650 persons. The Pearl Harbor unit is also being increased. Nine translators and about thirty other persons trained in radio intelligence work are being transferred to Honolulu during the current month. All Kana intercept operators have been cleaned out of the stations in the United States wherever their services can be spared and sent to stations covering Japanese traffic in the Pacific. Training schools are in operation in the Fourteenth Naval District and at Bainbridge Island, Washington, where intercept operators are being trained as rapidly as possible and sent out in the Pacific Area. Another school is soon to be started near Washington. It is planned to move additional personnel from the Washington Radio Intelligence Center as soon as they become qualified and can be replaced. The present personnel in Washington consists mainly of men. These will be sent to outlying stations and replaced wherever possible by women who are now being inducted in considerable numbers. Any moves of this nature which are undertaken must be done gradually so as not to disrupt activities. It requires several months to effect transfers and get units properly organized and operating. The major British unit which was functioning effectively in Singapore was forced to move by the capture of that place and has never resumed its former output. Similarly, in moving of personnel from Corregidor it required about three months before the unit was able to produce on its former scale.

- 9. In view of the foregoing facts the following recommendations are made:
 - (a) Continue present radio intelligence organization.
 - (b) Augment existing facilities and personnel as rapidly as possible, giving priority to the Hawaiian radio intelligence unit in the Pacific.
 - (c) Improve communications between the radio intelligence centers to facilitate and expedite the exchange of intelligence and technical information.
 - (d) Assign a properly qualified officer in charge of the intelligence center in Hawaii who will have additional duties on the staff of the CinC Pacific in order that proper relations between the intelligence activities and the operational staff may be maintained.
- These recommendations apply only to the radio intelligence side of the problem presented in CincPac's letter (reference (a)). The combined operational intelligence center certainly appears to be desirable, but I feel that it is only necessary to have the radio intelligence of the Com 14 unit fed into this operational intelligence center. The radio intelligence organization has been under the control and administration of the Chief of Naval Operations and is under the immediate direction of the Director of Naval Communications. This arrangement has worked well in practice for the reason that there are numerous shore activities to be maintained, with resulting logistic problems. In addition, the equipment used is essentially communication equipment, and the personnel must be trained in communication methods. Moreover, it has been found possible to employ civilians in many parts of the work, and the placing of the organization under the Chief of Naval Operations rather than under a commander afloat has facilitated this. As the foregoing reasons still hold, it is considered advisable to continue the arrangement now in effect as far as the administration and maintenance of the organization are concerned. However, in view of its importance to the commanders of combatant forces, it would be very desirable to have officers in charge of the radio intelligence centers given additional duties on the staffs of the commanders in chief of the areas in which they respectively operate in order that there may be closer liaison between the intelligence and operational staffs.

11. In connection with paragraph 5 of reference (a), a supplemental report will be submitted setting forth a complete analysis of the personnel situation.

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