SRH-305

THE UNDECLARED WAR

"HISTORY OF R.I."

15 NOVEMBER 1943

by L.F. SAFFORD CAPT. U.S. NAVY

REVIEWER'S NOTE:

The first review of this document was conducted by personnel of the U. S. Navy.

~~SECRET~~ HISTORY OF R.I.

THE O.N.I. SLUSH FUND

Sometime during the period 1917-1920, a secret fund of $100,000 was deposited in a local bank to the personal credit of the Director of Naval Intelligence. It is probable that Captain Roger Welles was the first custodian of this fund, and it is definitely known that Admiral Niblack was a custodian. This fund was expendable at the discretion of the Director of Naval Intelligence and was not accountable to Congress or the Comptroller General. The only record kept was in the stubs of the check book, and the unexpended balance was transferred to the personal account of each succeeding Director of Naval Intelligence. It is my recollection that the fund was made available by Secretary of the Treasury McAdoo at the request of President Wilson.

(Naval Communications)

The Research Desk of the Code and Signal Section was the chief and almost sole beneficiary of this "Slush Fund." To my personal knowledge, the following expenditures were made from this fund:

(1) Special "bonuses" and other expenses in connection with photographing the Japanese Naval Operations Code.

(2) Compensation of Dr. Haworth and Mrs. Haworth, who were translating our photographs of the Japanese Naval Code from 1922 to 1927, inclusive, and translating decrypted messages from 1928 to 1931.

(3) Purchase of about 40 Japanese typewriters and cost of making special dies for the type heads.

(4) Purchase of Japanese dictionaries, grammars, year books, etc.

(5) Repair of Japanese typewriters.

The unexpended balance of this fund, amounting to about $65,000, was turned in to the Treasurer of the United States in June, 1931, in connection with the retirement of Captain H. A. Baldridge, U.S.N., the Director of Naval Intelligence. Captain Baldridge had been in the Naval Hospital for several months and the Assistant Director, Captain William Baggaley, had been acting as D.N.I. Commander J. W. McClaran (Op-20-G) got word of the proposal somehow and reported it by a memorandum to the Director of Naval Communications, dated 8 June 1931, stating in part:

> "If Captain Baggaley is allowed to turn this fund back simply because of his own personal fear in handling it, I feel that it will be a great mistake, and it is a safe bet that one year hence when he leaves, his reliefs for many years to come will bemoan the fact that their hands have been tied by lack of funds to prosecute urgent secret tasks."

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THE O.N.I. SLUSH FUND

Captain Hooper, in turn, sent the D.N.I. a memorandum of protest, dated 10 June 1931, stating in part:

> "It was through expenditures from this special fund that our radio intelligence intercept activities were begun at a time when the necessary funds could not be obtained elsewhere. All of the special machines used in this work were paid for and have been kept in repair through this source. In addition to the above, the Research Section has from time to time found it necessary to call upon this fund to defray expenses for essential secret intelligence activities. ... Furthermore, in the event of a war this fund should be an excellent back-log upon which to depend for preliminary intelligence activities until necessary additional appropriations could be obtained."

Commander McClaran also left the following note in his own handwriting:

> "This was followed by personal appeal by Op.20 & 20-G to Op.16 and an offer on their part to go privately to members of Naval Affairs Committee & obtain authority to retain secret fund. Above offer rejected. Then 20 & 20-G went to C.N.O. & asked him to direct that fund be retained, which he intended to do but before he took action 16 prodded by 16-A got Sec.Nav. to sign order returning sum to Treasury."

The teamwork which existed between Naval Communications and Naval Intelligence from 1922 to June 1931 and our reliance on O.N.I. funds should be particularly noted.

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THE "RED BOOK"

The title "Red Book" was our covering name for the "Imperial Japanese Navy Secret Operations Code - 1918." Naval Intelligence obtained a photostat copy in 1921 or 1922 and a later photostat copy, including recent changes, in 1926 or 1927. This code was translated in the Navy Department by Dr. B. C. Haworth, assisted by his wife, and the translation was typed by Miss Castleman and Mrs. DuVerger. The original translation was completed early in 1926, but Dr. Haworth was permitted to verify the translation of the vocabulary, and did not complete his final translation until 1927. The original translation was typed on 8 by 13 inch paper and was bound with Acco fasteners into about 10 volumes, very inconvenient to use. Only two copies were made. In 1929 the translation was retyped on special 12 by 18 inch forms and bound in two volumes in red buckram McBee Binders. Four copies were typed, this work being performed by Miss Feather, Mrs. Wedding, Miss Calnan (Mrs. McCarthy), Mrs. Wilson (Mrs. Craven), and Mrs. Talley. The job was completed in the spring of 1930. One copy was immediately sent to the Officer-in-Charge of the Asiatic R.I. Unit on the U.S.S. HURON, one copy was retained by the Research Section for its own use, and the remaining two copies were placed in war-reserve in the R.P.S. vault. One of these latter copies was issued to the R.I. Unit at Pearl Harbor in 1936. The photostats of the original code were "re-photostated" in 1930 and given the same distribution as the translations.

The "Red Book" remained in effect until 30 November 1930. In some respects it is the most important Japanese cryptographic system we ever had, for the following reasons:

(1) It was the determining factor in establishing the Research Desk of the Code and Signal Section (January, 1924).

(2) It was a constant incentive to build up an R.I. organization to exploit our possession of this code.

(3) It assisted our early efforts to a great degree when our cryptanalytical force was very small and rather inexperienced. We had only to solve the ciphers used with this code in order to decrypt messages. If we had been faced at the beginning with the task of solving the cipher plus an unknown code, it might have been too much for us and, at least, it would have slowed our early efforts.

THE "RED BOOK"

(4) It showed us that possession of the code and its translation was not enough and that we must have qualified Japanese translators as an integral part of the R.I. Organization.

(5) It gave us invaluable information concerning the Japanese Navy and Japanese war plans that we could not possibly have obtained in any other way. (See "1930 Grand Maneuvers," which follows.)

(6) It forecast the Japanese intention of the conquest and annexation of Manchuria, China, and the East Indies, through the composition of the Geographical Section; the general ignoring of Europe, Africa, and the Americas, and the complete listing of even the smallest towns in China.

(7) It was useful even after supersession, giving a probable vocabulary of later codes and a list of place names in Chinese characters, Kana, and English equivalents.

(8) It taught the great danger of issuing Fleet Systems to minor shore activities where proper military guard was not maintained.

The "Red Book" contained a total of 100,000 expressions and had three independent code-equivalents for each expression, namely: 5-digit number, Roman letters, and 3-character Kana group. The Kana was the only form used within our experience. The code was arranged in sections, the Geographical List plus Ship Lists amounting to exactly one-half of the code. The Geographical Table was arranged in geographical order by areas, Ship Lists were arranged alphabetically by countries, other sections were arranged in alphabetical or numerical order, or in the order found in the conventional character dictionary. There were a few variants in the code, evidently for the convenience of the user, as they were always found in a location where the character or expression might be found. The instructions for the code stated that it was never to be used without super-encipherment. However, the instructions called for a simple substitution or additive cipher, whereas all the ciphers within our knowledge were of the transposition type. In 1926, when we made our first solution of the cipher used with this code, only one cipher was being used and it was of a relatively simple nature; a "key" remained in effect for several weeks. Each succeeding cipher was more complex than its predecessor and changed "key" more frequently, but, as our decrypting unit "grew up with the ciphers," at no time did these ciphers exceed our capacity. By the autumn of 1930 four different ciphers were used simultaneously with this code.

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THE "RED BOOK"

Lieutenant J. J. Rochefort was in charge of the Research Section when actual cryptanalysis of the "Red Book" messages was first undertaken. Mrs. Driscoll was responsible for the initial solution and for the solution of most of the new ciphers and "transposition forms" used with this code. The various "keys" used with a specific cipher or "form" were often solved by officers under instruction in cryptanalysis. We had no other personnel, at that time, capable of doing that kind of work. Altogether, 14 different cipher systems or cipher "forms" were used with the "Red Book," all of which were solved by the Research Desk, as well as all of the individual keys used with these systems and "forms." We did not, however, attempt to decipher more than a small fraction of the messages, partly because we did not have a large enough force to handle the routine decryption after the cipher keys had been solved and partly through lack of Japanese translators.

The information gained from this code included:

(1) Form, phraseology, and subject matter of secret Japanese naval messages.

(2) Various accidents and casualties on Japanese men-of-war.

(3) General knowledge that japanese naval maneuvers were much more realistic than ours, particularly in night torpedo attacks.

(4) Exact knowledge of Japanese fuel supplies (oil, coal, and gasoline).

(5) Early knowledge of Japanese advances in naval aviation.

Naval Intelligence comes into the picture in the following respects:

(1) O.N.I. obtained the photostats of this code.

(2) It arranged and paid for its translation.

(3) It turned the code over to Naval Communications, rather than attempting to handle it itself, with the agreement and expectation that it would be furnished the information obtained by use of this code. This agreement was followed until about 1930, when the C.N.O. thought that he could not trust his Director of Naval Intelligence and ordered Captain Hooper to show intercepted messages to him (CNO) and to no other person. (This order was revoked in 1933.)

(4) The D.N.I. agreed with the D.N.C. that the R.I. Organization should come under Naval Communications, <u>at least in peace-time</u>.

(5) O.N.I. was given secret information from this code that could not be obtained from any other source.

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ORANGE 1930 GRAND MANEUVERS

The Orange Grand Maneuvers of 1930 were of particular importance for the following reasons:

(1) They were a dress rehearsal of the Japanese Navy war plans - a prelude to the Japanese occupation of Manchuria the following year - and Japan was ready to fight.

(2) A complete mobilization of the Japanese Navy and its reserve personnel plus the recommissioning of every vessel in the Japanese Navy list was conducted with such secrecy that the Naval Attache in Tokyo was entirely unaware that anything outside of the ordinary was taking place. Therefore, the U.S. Navy would have to depend on Radio Intelligence to avoid being taken by surprise.

(3) Our Intercept and Decrypting personnel came through with flying colors. The information gained by radio intelligence and presented to the C.N.O. and Director of War Plans was used as a basis for our own war plans. To this extent the Maneuvers may be considered the first military victory for the United States in the undeclared war waged by Japan.

(4) Our inability to track the Japanese Fleet demonstrated the necessity of establishing a strategic D/F network as part of the R.I. Organization (in distinction from the navigational D/F setup in the United States), the urgency of obtaining some sort of high-frequency direction finders (regardless of how crude), and the desirability of prosecuting the development of both H.F. and I.F. D/F apparatus.

(5) The exposure of the Guam Intercept Station to early capture meant that its real importance was as a stop-gap (until the intercept stations in Hawaii and Manila were further developed), as a potential site for a strategic direction-fincer station, and as a minor intercept station to cover frequencies and circuits which could not be heard elsewhere.

(6) The long delay in getting intercepted messages back to the Navy Department in peace time and the impossibility of doing so in war showed the urgency of enlarging the "Asiatic Decrypting Unit," which at that time consisted of one officer. Second in priority was the creation of our proposed Hawaiian Decrypting Unit.

(7) Our success gave us confidence for the future and an incentive to even better effort.

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ORANGE 1930 GRAND MANEUVERS

The first phase of the 1930 Maneuvers (from the U.S. Navy standpoint) was radio interception at Guam. The operators knew from the sudden increase in traffic on 18 May 1930 and the percentage of code messages on Japanese naval circuits that "something was up." They went to watch-and-watch and maintained this condition for the duration of the maneuvers except during conditions of peak load, when they manned spare receivers during their "rest periods." The Commandant at Guam was kept informed of the situation and gave general encouragement to the men. Traffic steadily increased in volume, reaching a peak near the end of the maneuvers on 13 June. A portion of the Japanese Fleet approached so close to Guam that I.F. transmissions could be intercepted and key clicks could be heard. The only direction finder on Guam was obsolete, inoperative, and located ten miles from the intercept station: it had no crew and no bearings were taken. By traffic analysis the operators estimated that this squadron spent a few days at Saipan, which was verified by a native employee in the Commandant's office who was visiting relatives on Saipan at the time.

A complete report of the maneuvers, with H.F. intercept logs and I.F. intercept logs as enclosures, was forwarded by officer courier: this was the Navy Department's first intimation that these maneuvers had taken place. The Commandant at Guam apparently believed that the Navy Department was well informed and did not consider it necessary to report this fact by despatch; in fact, he complained that the Department had failed to give him advance notice so that suitable preparations could be made. The Naval Attache, Tokyo, reported that the Japanese Navy was engaged in routine training exercises during this period.

The intercept station at Guam had been established the year before and was at that time our largest station, with a complement of nine men. The year's time had been sufficient to install an efficient array of antennas and get the personnel working smoothly. The most experienced man at the station, CRM Lyon, had had two years' previous duty at the intercept station at Shanghai. The other eight men had been trained by CRM Kidder in the first and second classes of the Intercept Operators' School at the Navy Department. The Chief Radioman-in-Charge (Reynolds) is now on the retired list, and two men have been returned to general service. The remainder, Gunn, Vandenberg, Lyon, Daniels, and Goodwin, all with temporary ranks of lieutenant (j.g.), plus Lusk with the rank of CRE, are all performing R.I. duty, and are the backbone of our present Intercept Organization. From this time on we felt great confidence in our R.I. operators but realized that our largest intercept station should not be on an undefended island which could be captured on M-Day.

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The second phase (for us) was decryption, which was done entirely at the Navy Department. The Japanese introduced a new cipher system for these maneuvers plus a daily change of key, but used the good old "Red Book," previously referred to. It was a perfect setup for our small Decrypting Unit.

All hands turned to on these messages, Mrs. Driscoll got the first break as usual, and the various daily keys were solved without too much effort. Every intercepted message was decrypted and eventually translated. The translation presented the greatest difficulty of all, due to the pressure of work on our only translator (Dr. Haworth), although the simpler type of routine messages did not require a student of Japanese. Much of this work was done by Lieutenant Wenger, who was under instruction in cryptanalysis at that time.

The work of solving these cipher systems and decrypting the messages was one of the most interesting duties ever undertaken by the section. We were literally exploring virgin territory and no one in the U.S. Navy had the slightest idea as to the professional concepts of the Japanese Navy. The first message, chronologically, was a simulated warning (sent in secret code) that hostilities between the United States and Japan were imminent and ordered a complete mobilization. Thereafter, messages ticked off in regular order as presumably laid down in the Japanese war plans. Dummy messages (in code) went on the air, increasing the traffic on point-to-point circuits about five times its normal amount. These dummy messages were all in the nature of propaganda and "pep talks" to remind the Japanese of their glorious past, their duty to their Emperor, and the joy of dying for one's country. Other stations attempted propaganda directed at the British, Chinese, and Filipinos; only the Japanese sent it in secret code and used it for dummy traffic. The second message of importance announced the simulated declaration of war and directed all fleets to proceed in accordance with plan. The capture of Guam was announced at an early date, followed in due course by the capture of the Philippines. Simulated air raids on Tokyo from the LEXINGTON and SARATOGA were reported, and district patrol craft sank U.S. submarines. The climax of the maneuvers was the "constructive" defeat inflicted upon the U.S. Fleet, there being no actual fleet action. From the tone and wording of these messages there is no doubt that in 1930 the Japanese Navy felt itself capable of defeating the U.S. Navy in Japanese home waters.

The third phase (for us) was the reconstruction of the maneuvers. Preliminary work was done, as I remember, by Lieutenant Wenger, but the final analysis was made by Captain R. E. Ingersoll, then serving in the War Plans Division. Captain Ingersoll worked about six weeks reconstructing the maneuvers, checking reports and orders, verifying translations, and estimating the probable Japanese War Plans. The most astonishing discovery was that the Japanese had a very good idea of American War Plans, as annually rehearsed at the Army and Navy War Colleges, and had taken suitable measures to take a devastating toll of attrition during our steam-roller advance to the relief of the Philippines. It is my understanding that the framework of our war plans was changed as a result of Captain Ingersoll's studies, and at least we knew the "enemy's" intentions.

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ORANGE 1930 GRAND MANEUVERS

The 1929 organization of the Japanese Navy consisted of the Combined Fleet and Naval District Forces. The Combined Fleet consisted of the First Fleet (roughly corresponding to the U.S. Battle Fleet), the Second Fleet (roughly corresponding to the U.S. Scouting Fleet), and the Third Fleet which consisted of a few gunboats and overage destroyers patrolling the China coast. The war maneuvers heavily reinforced the Third Fleet to permit a blockage of the China coast and created a large Fourth Fleet, based at Bako, which covered the (constructive) "Philippine Expeditionary Force" assembled in Formosa. Every island in the Japanese Mandate was a potential air base and submarine base, particularly the chain that extended from the Bonin Islands to Saipan. The Second Fleet was a protective screen which took station in the above-mentioned chain, made contact with the U.S. Fleet and retired before it, making nightly torpedo attacks. We even had the formation, stations, and exact composition of one of the Japanese scouting lines. The First Fleet was a striking force which remained in the vicinity of the Inland Sea until the U.S. Fleet had been worn out by night attacks, decimated by attrition, and considered ready for the knockout punch. Overall coordination of effort was effected by the Commander-in-Chief, Combined Fleet, making extensive use of the excellent Japanese naval communication organization spread out through the Japanese Empire and Mandated Islands. This is interesting from a communication viewpoint because the Japanese Fleet made much more use of shore radio stations than we did at that time.

The "U.S. Fleet" was partly constructive and partly simulated by a few auxiliaries. The entire Combined Fleet operated as an entity under its own Commander-in-Chief. In our own maneuvers, it may be recalled, the U.S. Fleet always was divided into opposing forces while its Commander-in-Chief was relegated to the status of Chief Umpire and Observer. The fact that these maneuvers were a rehearsal of war plans is hinted in a secret message sent by the Japanese Naval Attache, which I quote from memory:

> "I asked Admiral Pratt (the C.N.O.) three times what was the strategic significance of Joint Army-Navy Maneuvers in Panama and each time he told me that they had no strategic significance. His reply may not be the truth but I know that I am reporting it correctly because I asked him three times and the answer each time was that the U.S. Fleet Maneuvers were just tactical exercises with no strategic significance."

Apparently a Japanese naval officer could not comprehend large-scale maneuvers that did not simulate a probable strategic situation.

The Japanese Navy did not demobilize to its 1929 level after the 1930 Maneuvers. The older vessels and auxiliaries were placed in reserve but none were decommissioned. Our R.I. Organization gave us complete information in the case. The "Secret Operations Code" was superseded on 1 December 1930 at the beginning of the new Fiscal Year, giving them a clean slate so far as security was concerned. The Japanese naval building program was expanded, particularly in cruisers and submarines. And in 1931 Japan began the conquest of Manchuria. Apparently 1930 was "Y-Year" of the Japanese long-range strategic plan.

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ORANGE 1930 GRAND MANEUVERS

To the best of my recollection, our report on the 1930 Orange Maneuvers was not disclosed to the Office of Naval Intelligence until 1933 or later. Admiral Pratt felt that he could not trust the Acting Director and put a taboo on the whole office, just to play safe.

As result of our secret participation in the Japanese Maneuvers, as well as our complete success in the solution of Japanese Diplomatic Codes and Ciphers, the D.N.C. advised the Secretary of the Navy in a secret memorandum dated 21 January 1931:

> "The U.S. Navy has at the present moment as complete an ascendency over the Japanese Navy in the matter of radio intelligence as the British Navy had over the German Navy during the World War. This fact has been carefully guarded and it should be known only to officers actually engaged in this work. One suspicion on the part of the Japanese would undo the accomplishments of seven years."

To this was added a pencil note by Commander Kingman:

"Not true today 1934 on account of Yardley's book. H.F.K."

Op-20-S-5

15 November 1943

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HISTORY OF R.I.

THE "BLUE BOOK"

The "Blue Book" (named after the color of its binder) was our covering name for the 1930 edition of the Japanese Navy Secret Code, which was effective from 1 December 1930 until 31 October 1938. We acquired this code the "hard way" - that is, by cryptographic analysis and reconstruction. Originally we worked from a card file of "recovered values." The "Blue Book," itself, consisted of blank pages with all the possible Kana code groups printed or typed in proper order in the left-hand column. Meanings were added by hand, after recovery and verification, in both Chinese characters and English translations, "correction sheets" being sent out periodically to all holders. The distribution of the "Blue Book" was as follows:

Navy Department (Op-20-G)
CINCAF
COM 16
COM 14

The code consisted of about 85,000 code groups. It was used only with super-encipherment, and we were faced with the apparently impossible task of solving the code and the cipher simultaneously. In 1914, the Russians had solved German naval ciphers, with the aid of a salvaged code. The British had done the same thing from 1915-1918, with the aid of the same code and a Russian cryptanalyst. In 1918, the U.S. Army solved German Army ciphers, with the aid of a captured Trench Code, and the British and French Armies had done it before them. We had been solving Japanese naval ciphers with the aid of a photographic copy of the code. There were numerous examples of the solution of codes used without encipherment, including practice solutions of two of our own naval codes in 1925 and 1926. But there was no record or tradition of enciphered code yielding to attack when neither element was compromised. We were facing the same situation as in war and decided to work out our own salvation. Naval Intelligence would not be called on for assistance except as a last resort.

THE "BLUE BOOK"

The attack on this code began about September, 1931 (when the code had been in use for eight months) upon completion of our analysis of the Orange 1930 Maneuvers. Mrs. Driscoll devoted full time to it until the solution was well along; Lieutenant Dyer devoted most of his time to it for five months, until the IBM tabulating machinery came along; and I devoted as much time as I could for the next eight months. We suspected that a new cipher would be introduced with the code, and were not disappointed, but it was not radically different from its predecessors. Mrs. Driscoll got the initial break

In this way all the cipher keys were solved with no more difficulty than for its predecessor, the "Red Book." We found that we could always trust the Japanese, themselves, to do something that would assist us in the solution of their systems: they have never yet failed us!

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THE "BLUE BOOK"

The most important and certainly the most dramatic incident connected with the "Blue Book" was the message reporting the NAGATO's post-modernization trials. We were fortunate enough to intercept and decrypt the message and got a solid translation. The NAGATO's new speed was 26+ knots - the same as the four Kongo-class battle cruisers. By inference, this was the prospective speed of the modernized MUTSU and the new Japanese battleships which were about to be built. This created consternation in the higher echelons of the Navy Department because the MUTSU class was believed good for only 23½ knots, and our new battleships (then in the blueprint stage) were going to have a speed of only 24 knots. Captain R. E. Ingersoll, from War Plans, came down to check the speed and verify the code group for that speed. There were several runs at full power. The fractional excess above 26 knots varied but every run was reported with the code groups meaning:

26
Decimal point
(Number)
Knots (speed).

"26" was verified from a dozen occurrences in dates of known events, serial numbers of messages, serial numbers of items, etc. There was no doubt as to the correctness of this information. (Jane's Fighting Ships later reported the possibility of a 26-knot speed for the modernized MUTSU.) The information was referred to the General Board, and the maximum speed for new battleships was raised to 27 knots. The construction of the NORTH CAROLINA and WASHINGTON was not delayed. Our 12 new battleships (8 built and 4 building) thus have a superiority of 1 knot rather than a deficiency of 2 knots, compared with Japanese battleships.

We hoped to get similar data on Japan's New Construction Program - particularly the tonnage, gun caliber, and number of their battleships - but without success. Yet this single piece of information paid for our peace-time R.I. Organization a thousand times over. To quote Shakespeare - "there is a Divinity which shapes our ends, rough-hew them as we may."

The message in question cannot be located despite a thorough search, so the exact date and other details are uncertain.

The foregoing account of the incident has been verified by Comdr. Redfield Mason (USN) and by Lt. Comdr. P. H. Currier (USNR). Mason verified the speed with an officer from War Plans and independently recalled that it was Captain Ingersoll. Currier says that he believes the message was in the "HE" Code rather than the "Blue Book." Personally, I believe that the solution of the "HE" Code was not sufficiently advanced in 1936 to have given us the solid translation that I recall. The date is indicated as the summer of 1936 by the following circumstances:

NAGATO's post-modernization speed trials	1936-
MUTSU's post-modernization speed trials	1936
Mason on duty in Op-20-G	1934, 1936, 1937
Captain Ingersoll on duty in War Plans	1936-1938 inc.
Currier on duty in Op-20-G	1935-1943 inc.
Safford on duty in Op-20-G	May 1936 - Feb. 1942 inc.
"Life" of the "Blue Book"	1930-1938 inc.
"Life" of the "HE" Code	Aug. 1935 - Apr. 1939 inc.
Keel of NORTH CAROLINA laid	Oct. 27, 1937
Keel of WASHINGTON laid	June 14, 1938

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ORANGE 1933 GRAND MANEUVERS

The Orange Minor Maneuvers of 1931 and 1932, like the 1929 Maneuvers before them and the 1934 and 1935 Maneuvers after them, were comparable with our own "U.S. Fleet Problems." The China Patrol, vessels in the Navy Yard, and ships on detached duty did not participate. The First Fleet was opposed to the Second Fleet in each exercise. They assisted our reconstruction of the "Blue Book" and gave us intercept material in the so-called "minor" cryptographic systems. They disclosed that the complement of a Japanese naval vessel was from 150% to 200% that of an American vessel of the same size. Also that, in the matter of training and preparation for war, the Japanese Navy was at least equal to our own.

The 1933 Maneuvers followed the magnitude and general pattern of the 1930 Grand Maneuvers and confirmed our belief that they were a rehearsal of war plans. We had much more intercept material to work on because our operators were more numerous and experienced, and the maneuvers lasted longer, so the information was considerably greater. The lessons of 1930 were not wasted on the R.I. Organization, and plans were made, well in advance, for the secret participation of the Asiatic R.I. Units in the 1933 Maneuvers. At that time, the Asiatic R.I. Organization consisted of 1 officer and 30 men, all of whom participated in the maneuvers, as compared with the 9 men who covered the 1930 Maneuvers. The Asiatic R.I. personnel were scattered among four widely-separated stations. This permitted a greater amount and variety of intercepted messages but made coordination difficult and entailed serious delays in getting intercept logs to the points where they could be used.

The Asiatic R.I. Officer (Lieut. Wenger) attempted to combine a simulation of war conditions with the maximum interception of Japanese naval messages, and made special effort to get fleet traffic on enemy frequencies by means of a ship cruising the prospective theatre of operations. The GOLD STAR's "health cruise" was scheduled to put her in Manila just prior to the maneuvers and return to Guam during the maneuvers. At Cavite the ship's radio operators were taken off and replaced by four R.I. operators from Olongapo. Additional receivers and an I.F. direction finder were installed on the GOLD STAR. However, on the only occasion that the GOLD STAR was in a position to perform any intercept work which could not be done at the shore stations, the Japanese laid down obliterative interference, and, to quote the GOLD STAR report:

> "The results were so thorough in effect that it was impossible for the GOLD STAR to copy solid a single message transmitted during the period from about 0900 to 1700, 13 August."

It is evident that the Japanese were fairly well informed as to our intercept activities on the Asiatic Station, which were the subject of table gossip in Manila. Due to effective counter-measures on the part of the Japanese, the operators on the GOLD STAR accomplished nothing and would have been more useful if they had remained at Olongapo.

ORANGE 1933 GRAND MANEUVERS

The Asiatic Fleet Radio Intelligence Officer remained aboard the fleet flagship at Tsingtao, and, while R.I. estimates from the intercept stations were occasionally forwarded by radio, the intercept logs for the most part did not reach him until after the conclusion of the maneuvers. This delay was "constructively" cancelled in his analysis. Due to lack of cleridal assistance, Lieutenant Wenger did not attempt the decryption of problem traffic (except for one batch of submarine messages) but gave a full-scale test to our theories of "traffic analysis." The "Blue Book" had been solved and "reconstructed" to better than "50% readability" by that time.

Due to the foregoing circumstances, our radio intelligence study of the 1933 Maneuvers consisted of three phases; namely:

(1) Interception and "spot" analysis by enlisted personnel at the intercept stations. "Hot information" was forwarded by radio to CINCAF.

(2) Traffic analysis (in retrospect) by Asiatic R.I. Officer aboard the fleet flagship. This continued for six months. Decryption was not undertaken in order to test how much information could be obtained by "methods short of cryptanalysis" and how accurate this information could be.

(3) Decryption of the messages, verification of the "traffic analysis," and analysis of the maneuvers back at the Navy Department. This continued for a period of three years, until we had extracted every possible bit of information from the intercepted radio messages.

CINCAF's original report, dated 7 March 1934, consisted of 115 pages. Notations indicate that it was seen by:

Captain Hooper (D.N.C.)
Rear Admiral Bryant (D.W.P.)
Rear Admiral Taussig (Asst. C.N.O.)
Admiral Standley (C.N.O.)
Commander Creighton (O.N.I.)

The D.N.C.'s supplementary report, dated 30 April 1937, consisted of 120 pages. It was routed to C.N.O. via the D.N.I., and was undoubtedly referred to the War Plans Division, but there is no record of this fact.

From the Japanese point of view the maneuvers were divided into four distinct phases; namely:

(1) Mobilization -- 17 May to 12 July.
(2) Strategic Period -- 13 July to 14 August.
(3) Tactical Period -- 15 August to 19 August.
(4) Critique and Fleet Review by the Emperor -- 21-25 August.

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7

The mobilization was heralded by the sudden creation of the Fourth Fleet, consisting mostly of older vessels which had been in a reserve status or undergoing modernization. The Fourth Fleet took over the stations and functions performed by the First Fleet in the 1930 Maneuvers and was often referred to as the "Home Defense Fleet." (This released the First Fleet for more aggressive functions.) During the tactical phase of the maneuvers the Fourth Fleet represented the entire Combined Fleet. The Fourth Fleet remained in existence after these maneuvers, although changing somewhat in composition, thus marking another step in the mobilization of the Japanese Navy for an "all-out" war. In fact, the only other radical change in the organization of the Japanese Navy was the creation of the Fifth Fleet, stationed in the Kurile Islands, in the early summer of 1941.

8

In connection with the foregoing, the following is quoted from CINCAF's secret letter CF283 dated 7 March 1934:

> "The first indications (of mobilization) appeared in February (1933). At this time secret calls of a new type were heard. Then in March the Guam unit began to notice a sudden change in the operating ability of Orange radiomen of the primary stations at Tokyo and Sadebo. It soon became obvious that a number of new and inexperienced operators had been placed upon the circuits. ... On May 17 both Olongapo and Guam began to detect changes in the normal fleet organization. The names of certain units of the First and Second Fleets were changed and a new Fleet, designated the 'Fourth Fleet,' came into being. ... By the middle of June Guam was able to give an extraordinarily accurate picture of the entire reorganization of all Orange naval forces, the most significant change being that many ships ordinarily held in reserve, were now in active service."

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9 The Third Fleet maintained its station along the China Coast and up the Yangtze River. This undoubtedly represented a blockade of China's ports, if the blockade was not actually taking place at that time. The Third Fleet had many more ships than the old China patrols of 1930, and this new function of the Third Fleet was a departure from the 1930 Maneuvers. Later on (1936 and thereafter), when the Third Fleet began covering and assisting landing forces in China, the reason for its earlier training and diversion to Chinese waters became apparent.

10 The First and Second Fleets escorted the troop transports and covered the operations of the "Combined Landing Force," thus taking over the duties performed by the Third Fleet in 1930. The First and Second Fleets assembled at Yuyu Bay during the week 6 to 12 June 1933. On 24 June they moved to the Sasebo Naval Base. On 29 June they advanced to Formosa by the Saddle Islands, the First Fleet going to Bako, the Second Fleet to Takao, stopping at Bako en route. On 13 July both Fleets departed for Palau, and the so-called strategic phase of the problem began on that date. The First and Second Fleets entered Kossol Channel on 18 July and remained in that vicinity up to 30 July, when they moved to Ulithi. Landing exercises were held during this period, undoubtedly simulating landings on Luzon. The First and Second Fleets spent 14 days at Ulithi conducting numerous drills and exercises, and representing strategic deployment against the U.S. Fleet. This concluded the strategic phase of the exercises.

11 In the tactical phase of the maneuvers, the First and Second Fleets became the Battle and Scouting Fleets of the BLUE (or United States) Fleet, and the Japanese Base Force became the U.S. Fleet Base Force. It was assumed that the U.S. Fleet had steamed westward from Pearl Harbor, held or recaptured Guam, and had captured Japanese bases in the Marianas. From these advanced bases the BLUE Fleet launched an "all-out" attack on Japan proper. Meanwhile, the defending Fourth Fleet, known as the RED Fleet and representing the entire Combined Fleet, had occupied advanced positions in the Bonin Islands. The opposing forces made contact and engaged in the final battle about 400 miles southeast of the Bonin Islands on 18 August. The Commander-in-Chief, Combined Fleet, aboard the MUTSU, commanded the BLUE Fleet. According to press release, the Emperor of Japan, aboard the NAGATO, personally commanded the RED Fleet.

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12 The work of the Base Force, operating directly under the Commander-in-Chief, Combined Fleet, is of particular interest in two respects. First, it established temporary air bases at Chichijima, Iwo Jima, Pagan, and Saipan. These air bases were expanded into permanent establishments after the maneuvers. Seaplanes were flown from Yokosuka to Saipan. This was a long hop for those days and much better than anything the U.S. Navy had credited the Japanese Navy with being able to do. It was apparent that Japan had developed a strange breed of aviators who shunned publicity.

13 The Base Force also established high-frequency direction finders during the period May to July, 1933, as follows:

No. 4 - Chichijima
No. 5 - Iwo Jima
No. 6 - Saipan
No. 7 - Pagan.

These stations worked with No. 1, at Yokoska, during the maneuvers and remained in commission thereafter. No. 2 D/F, at Sasebo, and No. 3, at Hozan, did not participate in the maneuvers or were not heard by our people. The direction finders were calibrated with the assistance of Base Force minesweepers and tracked Japanese patrol planes for exercise. They also took bearings on the U.S.S. HOUSTON, anchored at Tsingtao, China, on a frequency of 12,820 kc., and on the U.S.S. MONOCACY, in Shanghai, on a frequency of 335 kc.

14 These early bearings were not particularly accurate, but neither were ours when we got high-frequency direction finders installed at Guam and Cavite, four years later. By 1934 the Japanese direction finders could be considered fairly accurate and reliable. Later on (about 1940), we learned from intercepted messages that the Japanese direction finders had tracked three U.S. cruisers (on a secret mission) all the way from Pearl Harbor to Singapore, and had predicted their destination and time of arrival 24 hours in advance. The significance of these Japanese D/F installations lies in the fact that in 1933 some of the U.S. Navy's radio engineers were claiming that the high-frequency direction finder was technically impossible, and that Naval Operations was wasting time and money by its insistence on the development of high-frequancy D/F apparatus. Forty-seven messages intercepted during the 1933 Maneuvers, to say nothing of countless messages intercepted and decrypted during later years, proved these people wrong. Fortified with this secret knowledge, we redoubled our pressure on the Radio Division (officially, unofficially, and through the Radio Material Improvement Plan) until we finally got the apparatus we needed. It was not until 1939, however, that our D/F stations in the Pacific Ocean even approached those of the Japanese as regards number and quality of apparatus; and it was a year later before our D/F operators were comparable with the Japanese in skill and experience. At the present time, we have outstripped the Japanese, as well as other nations, in the quality of D/F apparatus and in skill of "tracking."

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15. The Japanese Navy was making great strides in Communication Security; a bad omen for us. In the 1930 Maneuvers only one code system and one system of Secret Radio Calls were used, while most of the messages were sent with "Service Address." Our "Cryptographic Intelligence" phase of the 1933 Maneuvers entailed the solution of three codes, nine cipher systems, seven secret call lists, and four secret address systems, plus the use of one partially solved code (the "Blue Book"), and required a total of three years. Each succeeding year increased the bulk and difficulty of our task. Our R.I. Organization was adequate in skill but not in numbers.

16 The success of "traffic analysis" in giving a picture of the 1933 Maneuvers, without the information obtained later from decryption, completely sold the idea of Radio Intelligence to Admiral Upham. The lessons of the 1933 Maneuvers were taken seriously, and the following recommendations submitted in CINCAF secret letter CF283 dated 7 March 1934:

(a) Locate one intercept unit in the Ultimate Defense Area (of Manila Bay) so that it can function without interruption upon the outbreak of war. (This was done in February, 1935.)

(b) Establish a decrypting center in connection with the intercept station in the Ultimate Defense Area. (This was done in July, 1934.)

(c) Equip all stations with suitable (i.e., high-frequency) long-range direction-finding apparatus and the best obtainable receivers. (This was completed by December, 1938.)

(d) Provide sufficient intercept operators. (The number serving on the Asiatic Station was gradually increased as more men became available, and all personnel were finally merged in one big station, except for a minor unit at Guam.)

(e) Provide at least two cryptanalysts, one translator, and two clerks for analysis of intercept material. (This was completed by the end of 1935.)

(f) Conduct intercept activities .... with the mission of preventing surprise attack. (This had been our concept since 1924.)

Admiral Upham also originated the "Corregidor Project," won over the local Army authorities, and (after his transfer to the General Board) finally obtained the consent of the Chief of Staff, U.S. Army. From this time on, the Commander-in-Chief, Asiatic Fleet, looked upon the R.I. Unit as the most important facility under his command. It may be added that on 7 December 1941 the Asiatic R.I. Unit consisted of 9 officers and 61 men, located in a bomb-proof tunnel on Corregidor, and that it was functioning with an efficiency of 100%.

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THE EVE OF WAR

The Navy Department had been given almost complete information and warning of the Japanese intentions through the Navy's Radio Intelligence Organization (R.I.O.), which was directly under my command from 6 May 1936 until 14 February 1942. From 1 September 1941 through 7 December 1941 we were in a solid position. The Navy's high-frequency direction-finder stations at Corregidor, Guam, Pearl Harbor, Dutch Harbor, Samoa, and Midway were keeping us informed as to the general locations and compositions of Japanese naval forces. An idea of their efficiency may be gathered from the tracking charts submitted the previous year (Enclosures to COM 14's Secret Serial 432 dated 24 September 1940). The direction finders also tracked the withdrawal of Japanese merchant vessels to Japanese home waters, beginning the first of October and ending in the middle of November 1941, when there were no longer any Japanese merchant vessels at sea. The Navy had solved the primary Japanese Fleet system to a partially readable extent, after being "out" for several months, and also was reading the "minor" Navy systems. Only the Japanese "Admirals' Cipher" still defied solution. The Army had acquired a model of the Japanese Diplomatic Cipher Machine and the original set of cipher keys used with it. (Further comment might tip off the Japanese as to the time, place, and method of acquisition.) Lieut. Commander D. W. Seiler, USNR, built the Navy three "Chinese copies" at the Washington Navy Yard, and the Army built three or four models for itself. Two of these machines (one Army and one Navy) plus key lists were turned over to the British Government. The Navy had solved or stolen all of the other Japanese Diplomatic Systems and had turned copies over to the Army and the British Government. The two services were working together on Diplomatic messages, the Navy being responsible for all messages originating on odd days and the Army for even days. We had worked out a system of "predicted keys" for the Machine, which were good for about half the future dates. We generally solved new keys within twelve hours. Messages in the Machine system were forwarded by teletype or enciphered and forwarded by radio. New keys in the secondary system usually were solved within twenty-four hours, but the messages were forwarded by mail and were from five to ten days old when received (peace-time economy). Changes in the minor diplomatic systems were usually worked out in about seven days.

This is not true. Army accounted it the hard way — cryptanalytically! W.F. 16 Feb 52

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In early December 1941, the Navy's "Asiatic R.I. Unit" consisted of a total of 70 men (9 officers, 19 crypto-clerks, and 42 intercept operators), located in a bomb-proof tunnel on Corregidor. It worked primarily against the Japanese Navy but it also covered diplomatic messages passed between China, Manchuria, the N.E.I., and Japan, using "keys" furnished by the Navy Department. The Navy's "Hawaiian R.I. Unit," consisting of a total of 100 men (16 officers, 24 crypto-clerks, and 60 intercept operators), tracked Japanese ships and worked on Japanese naval messages exclusively. Liaison and exchange of technical information and translation was maintained between Corregidor and Singapore by the U.S. Navy: between Washington and London by the U.S. Army for decryption and by the U.S. Navy for D/F bearings.

3 The Diplomatic Section of the Navy Department Decrypting Unit had been standing 24-hour watches, seven days per week, since February first, 1941. It had an organization of four sections, with one officer and three experienced petty officers per section, plus four "idlers" and three translators - a total of 23 persons. The Army had approximately the same number working on Japanese diplomatic messages. Our Japanese translators worked on a two-section basis: normal office hours plus one translator who came down at night and stayed until about midnight or until everything had been cleaned up. An Adventist Missionary (who "observed his Sabbath on the Sabbath Day") normally took the Sunday duties. This was a very efficient arrangement as it took some time to verify the new day's key or to solve it, and more time to decrypt intercepted messages. As a general rule, a translator was not needed until about the time he came on duty at 8 o'clock in the morning, and priority messages intercepted during the night or early morning were decrypted and translated by 10 a.m. The War Department Decrypting Unit observed normal office hours up until the evening of 6 December 1941; but some of their people came down when warned by us, and they maintained continuous watch from that time on. The Navy not only deciphered and translated all messages for its "day of responsibility," but handled unsolved systems and decryptions of the "Army's day of responsibility" over week-ends and after office hours. There was a daily exchange of translations between the Army and Navy as well as special exchange when anything of particular importance came up.

4 Every Japanese diplomatic message that could be intercepted by the U.S. Army and Navy was promptly decrypted and typed smooth, ready for translation. Our shortage of translators in both services prevented translations of all messages, but we were able to translate the more important ones. All messages in the Machine were translated without fail.) messages were decrypted as soon as the new key was solved, although there was occasionally a lag in translation. Most messages classified as urgent (by the Japanese Government) and most "circular" messages in the minor systems were also translated. The remaining messages in the minor systems were glanced over and if the beginning of the message did not indicate anything of importance the message was set aside to be translated at a slack period, and in many cases was never translated at all. The shortage of translators also made it undesirable for the Hawaiian Decrypting Unit to handle diplomatic messages, and this unit, therefore, was not furnished the "keys" for Japanese foreign-office systems. The small decrypting units of the War and Navy Departments were handling practically all the radio messages sent or received by the Japanese Foreign Office, and in most cases solving the cipher to boot. The "output" per man was stupendous and the time-lags neglibible for the important messages. It was not humanly possible, with the personnel available, to decrypt and decipher everything and a rigid system of priorities had to be observed in order to get the "hot" messages translated and disseminated without undue delay. Despite the lack of experience of many of our naval reserve officers and enlisted men, the Navy's "Radio Intelligence Organization" was operating at 99% efficiency in November and December, 1941.

Lieut. Commander A. D. Kramer, USN, in command of my Translating Section, segregated and cross-referenced all messages, and briefed the more important ones. Daily at 11 a.m., Kramer would show the file to the Director of Naval Communications (Rear Admiral Leigh Noyes), to the Director of Naval Intelligence (Rear Admiral T. S. Wilkinson), the Officer-in-Charge of the Far Eastern Section (ONI)(Commander A. H. McCollum), and the Assistant Chief of Naval Operations (Rear Admiral R. E. Ingersoll). Important messages were also shown to Director War Plans Division (Rear Admiral Turner). The more important messages, as designated by the Assistant C.N.O., were shown to the Chief of Naval Operations (Admiral H. R. Stark) and the Secretary of the Navy (the Honorable Frank Knox). The message files were then turned over complete to the Naval Aide to the President (Rear Admiral J. R. Beardall) who took them to President Roosevelt and returned them to Kramer. The Secretary of State (the Honorable Cordell Hull) and the Under Secretary of State (the Honorable Sumner Welles) were also shown these messages, Colonel Bratton, U.S. Army, being responsible for delivery. On one occasion the President read the Japanese Ambassador's secret report of a private audience with him. He was much impressed and commented, as he read the translation, "Yes, I said that"; "That is correct, he said that"; etc. I do not recall whether this was in Kramer's presence or told to Kramer by Admiral Beardall. After that, President Roosevelt never doubted our decryptions or translations.

The first Japanese diplomatic messages of great importance in the present war informed us that Japan and Germany had extended the scope of the "Anti-Comintern Pact" and would declare war on the United States if the latter interferred with the Axis program of conquest in Europe or Eastern Asia. The next important information was that Germany was planning to attack Russia despite the non-aggression pact between the two countries. Intercepted messages from the Japanese Ambassador in Berlin informed us that Berlin was insisting that Tokyo declare war on England and the United States. To this Tokyo replied that the Japanese Government was adhering to the Pact in spirit as well as in letter; that they would declare war when the propitious moment arrived; that they could not take any hostile step so long as Russia was free to attack their mainland possessions; and their threatening attitude was neutralizing U.S. and British forces which otherwise would be available for use against Germany. In the autumn of 1941, after the German attack on Russia, Berlin renewed its demands of Japanese assistance, and Tokyo replied that they would make war, but that they would have to do it in their own way and at their own selected time, and that they could not be rushed in the matter. Tokyo also advised that their menacing attitude in Asia was holding large Russian forces in Siberia, and they considered they were giving as much aid to the Axis as if actually at war.

Early in September, Tokyo sent a message to its Ambassador in Washington instructing him to present a note to the State Department, which (with later "interpretations") amounted to an ultimatum. This note demanded, among other things that the United States withdraw its support of the Chiang Kai-shek regime in China and require Chiang to unconditionally surrender to the Japanese, and also demanded immediate withdrawal of the United States from the Philippines and recognition of a Japanese sphere of influence covering Eastern Asia and the Southwest Pacific Ocean. The ultimatum was to expire the 25th of November 1941. The Japanese Ambassador (Nomura) toned down the note considerably and omitted the most offensive provisions before presenting it to the State Department on September 6. It is possible that a note of another date was toned down rather than this one: Nomura was reprimanded for it, in either event. Nomura believed that a war with the United States would be suicidal for Japan and on several occasions recommended that Tokyo be more reasonable in its attitude. From our decryptions, the U.S. Government was well informed as to the real intentions of the Japanese Government. These messages showed Tokyo's intentions in the matter, and also explained the reason for sending Kurusu to Washington as a Special Envoy for the final negotiations immediately preceding the outbreak of war. The Japanese Government expected to be "appeased," but the internal situation of Japan was so desperate that a foreign war seemed preferable to the status quo.

9 Diplomatic negotiations between the United States and Japan dragged on throughout November, finally coming to a stalemate. At the same time Japan was mobilizing invasion fleets at Hainan (for the conquest of Malaya), at Bako (for the conquest of the Philippines), and at Jaluit (for covering these invasions or a direct attack on Hawaii). Japan had made no open move and we seemed to be drifting into war in a slow-motion fashion. However, beginning about 29 November 1941, the real, under-cover situation began to change rapidly for the worse, but superficially there was little apparent change. On 1 December 1941, we learned that London, Manila, Singapore, and Hongkong had been ordered, that very day, to destroy their cipher machines. This was our first definite warning that Zero Hour was near, and confirmed our information about Japanese intentions which had been gathered by radio direction finder, traffic analysis, and decryption of Japanese naval messages at Pearl Harbor and Corregidor. On December 3 we learned that the Japanese Embassy, Washington, had been directed the day before to burn all codes except two and destroy one cipher machine immediately, and to burn other secret papers at discretion. We also received information from the British Government that the Japanese Ambassador in London had just destroyed his code machine. Information to this general effect was sent to the Commander-in-Chief Asiatic Fleet plus the Commandant 16th Naval District "for action," and to the Commander-in-Chief Pacific Fleet plus the Commandant 14th Naval District "for information," on 3 December 1941 in two different messages. (Secret message (COPEK) #031855 was originated by myself and released by the Assistant Director of Naval Communications (Captain Jos. R. Redman, USN). Secret message #031850 was originated by Commander McCollum (I believe) and was released by the Director of Naval Intelligence (Rear Admiral T. S. Wilkinson, USN).) The next day the Naval Station Guam was ordered, by OpNav secret dispatch #042017 (originated by myself and released by Admiral Ingersoll), to destroy all secret and confidential publications, except those essential for current purposes and special intelligence, and to be prepared to destroy instantly all classified matter retained. CINCPAC, as well as CINCAF, was made an information addressee of this message. This same message was sent to Samoa, but in a different cipher system, that day or the next--I am not sure which.

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In addition to being in command of the Navy Radio Intelligence Organization, I was directly responsible for our own codes and ciphers and, therefore, checked over with Lieutenant T. A. Smith (Code and Cipher Desk) and the Registered Publication Section to see exactly what should be done to protect our codes and ciphers from capture at outlying stations. I drafted messages to the Naval Attaches at Tokyo, Bangkok, Shanghai, and Peiping, and to the Marine Detachments at Peiping and Tientsin, directing them to destroy all cryptographic aids except their own personal systems (which they were to destroy at discretion), to report compliance by sending the word "Boomerang" in plain language, and to report final destruction of the last cryptographic system and other confidential papers by sending the word "Jabberwock" in plain language. These messages (Opnav Secret #040340 and #040343) were released by Admiral Ingersoll in the late afternoon of 3 December 1941. The Commander-in-Chief, Pacific Fleet was not made an information addressee of the above messages ~~and, in fact, did not hold the cryptographic systems in which they were sent.~~ A similar message was sent to a [redacted] Yangtze River gunboat (the USS WAKE) via the Commander-in-Chief Asiatic Fleet. "Boomerangs" and "Jabberwocks" came trickling in during the next four days until there was complete accountability. The Naval Station Samoa was given the same message as previously sent to Guam, and Naval Station Dutch Harbor was directed to destroy one cipher system which had been used for secret intelligence work. Code Room Memorandum 050000 dated 5 December 1941 and Op-20-G Memorandum dated 9 December 1941 verify the above.

On 26 November 1941, the Navy Department translated Tokyo Circular #2354 (dated November 19) advising that a warning that "diplomatic relations were becoming dangerous" would be indicated by adding the following words (repeated five times) to Tokyo's "General Intelligence Broadcasts," at the beginning and at the end:

Japanese Word	English Translation	Meaning
HIGASHI	East	Japan-U.S. relations
KITA	North	Japan-U.S.S.R. relations
NISHI	West	Japan-England relations (including N.E.I., Thai, and Malaya)

This circular was relayed by the Japanese Embassy (Washington) to Rio de Janeiro, Buenos Aires, Mexico City, and San Francisco.

On November 28th, the Navy Department translated Tokyo Circular #2353 (dated November 19) stating that a warning as to the intentions of the Japanese Government with regard to war against Russia, Great Britain, and the United States would be broadcast in case of emergency by means of a false weather forecast included in the daily "Japanese language broadcast" from Tokyo. The "code" for this occasion consisted of three expressions:

Japanese Text	English Translation	
HIGASHI NO KAZEAME	- East Wind, Rain	- Japan-United States relations in danger
KITA NO KAZE KUMORI	- North Wind, Cloudy	- Japan-U.S.S.R. relations in danger
NISHI NO KAZE HARE	- West Wind, Clear	- Japan-England relations in danger

The Navy Department promptly notified the War and State Departments as to Circulars #2353 and #2354. The British R.I. Unit at Singapore also decrypted and translated these "circulars" and forwarded the translations to CINCAF, who passed them on to the Navy Department, CINCPAC, Com 16 and Com 14 in CINCAF secret message 281430 (Nov. 1941 - COPEK file). The N.E.I. Army read these same two messages and on December 4 furnished translations to the American Consul General (Mr. Foote) and two American Army officers (Thorpe and Slawson), who in turn forwarded the information to their respective Departments. Batavia confidential message #220 dated 4 December 1941, on file in the State Department, was forwarded to the Navy Department by the State Department Liaison Officer, Mr. Orme Wilson.

To supplement the above information, Navy Department sent to CINCAF, CINCPAC, COM 16, and COM 14 the new schedule of broadcasts by Tokyo Radio that same day (November 28th).

Note: Not written smooth beyond this point.
L.F.S.

L. F. Safford
Captain, U.S. Navy