New Twists on Old Tales: Crypto Triumphs and Political Meddling:
Japanese Codes and the Election of 1944
Colin B Burke, April 2017

During 1944's American presidential contest the nation's top military leader took an unprecedented and constitutionally dangerous step. In September 1944 he secretly interfered in the campaign. His intrusion didn't remain a secret for very long, however. Shortly after World War II General George C. Marshall's action became public knowledge with emotional tales appearing about his sending a special emissary to Thomas E. Dewey, the Governor of New York and the Republican Party's candidate, with a letter meant to persuade Dewey from mentioning something that might well have led to the defeat of the Democrat's Franklin D. Roosevelt in his run for a fourth term as president. Colonel Carter Clarke, Marshall's envoy, had been ordered to deliver a message intended to convince Dewey to remain silent about the United States and England's ability to read Japan's coded diplomatic messages long before the 1941 attack on Pearl Harbor--and about other Allied codebreaking efforts after the United States entered World War II.

The story of Marshall's letter and Clarke's visit and their repercussions has been told and retold. As early as 1945 major popular magazines, such as *Time* and *Life,* ran features on the penetration of Japan's diplomatic codes and the surprise attack at Pearl Harbor and on the related Marshall-Dewey affair. The stories included mentions of the "break-in" and "ransacking" of the Lisbon, Portugal offices of Japan's military attaché, actions that supposedly led to a grave year-long crypto black-out for the Allies beginning in summer 1943.[1] Interest in Pearl Harbor and related Magic Japanese codebreaking frequently resurfaced, with the many succeeding accounts of the related Marshall-Dewey affair varying depending on whether or not an author believed that Roosevelt had ignored a clear warning of the Hawaiian December 7th attack in Japan's 1941 messages in order to force America's entry into World War II.[2]

Disputes over Roosevelt's role in the Pearl Harbor disaster continued on. After years of gossip about conquering the high level Japanese diplomatic (Purple/JAA) traffic, the once-secret codebreaking efforts became public facts when the many classified wartime inquiries into the Pearl Harbor disaster were followed by congressional hearings in 1945. Testimony and analyses concerning diplomatic codes were published in the government's volumes, as

well as in many popular magazines and newspapers. Those publications whetted the public's appetite for more about the penetration of Japan's code systems. There were demands to turn hints about the breaking of Japan's naval codes into details.

The rumors about the penetration of the naval systems first appeared in a June 1942 newspaper article on the critical Battle of Midway. To the American government that article had seemed an irresponsible endangerment of the war effort, one motivated by anti-Roosevelt politics. The newspaper and its publisher were brought to trial. That action against the *Chicago Tribune* left political scars and intensified postwar demands for information about the attacks against all Japanese communications. Yet, despite those demands, and the disclosures about the main Japanese diplomatic system, the history of the British and American work on naval and most other Japanese targets remained in the realm of speculation.

Significant, although mentioned during the postwar hearings that were aimed at fixing responsibility for the Pearl Harbor tragedy, the story of the Allies' battle against Japan's Military Attaché (JMA/JAS) code, one central to evaluating the Marshall-Dewey exchange of 1944, continued to be protected behind a wall of secrecy. That was unfortunate because JMA's history is also essential to understanding the deep frictions between America's military and the Office of Strategic Services (OSS), the United States' new World War II spy agency.

However, information about JMA began to emerge after the 1990s when masses of National Security Agency documents were released. At the same time, in addition to the new details about JMA's technical and operational lives, more information became available about another of the critical elements of the Marshall-Dewey affair: America's wartime intelligence efforts in Portugal.

New releases from Central Intelligence Agency-OSS files on Portugal's undercover world add more twists to the histories of General Marshall's September 1944 interaction with Thomas E. Dewey and the OSS' travails during and after World War II.

Back-story, Lisbon

The background of the Marshall-Dewey exchange begins in 1942 in Lisbon, Portugal. Lisbon was a neutral country, a last port of exit for frantic refugees fleeing Nazi persecution, and a center for espionage and at least petty crimes.[3] Representatives of warring nations rubbed shoulders in its hotels and bars. They, along with exiled royalty, enjoyed the lovely beaches and casinos at nearby Estoril while their diplomatic offices were targeted by each others' spies and burglars.[4] Diplomatic buildings were temptations for ham-fisted black-bag-job artists and every country had a stable of inept informants. To be blunt, Lisbon was so deep into near comic-opera intrigue that it should have been the home of Rick's Café; Sydney Greenstreet

should have run a bed-and-breakfast for the likes of Rocky and Bullwinkle; and, Peter Lorre should have been conducting brush-up courses in skullduggery for Boris and Natasha.

One reason for Lisbon's bizarre espionage history was that it was packed with desperate and conniving people who lacked the social graces and finesse of operatives and immigrants in other neutral centers such as Berne, Switzerland. Second-string intelligence agents of all nations (including James Bond's creator) and informants who worked on-their-own for any who might pay for their services filled the city. Even aid workers such as those of America's Unitarian Service Committee and the Emergency Rescue Committee played the intelligence game.[5]

There were some true professionals, however. Germany, Italy, and Japan had their own operatives in Lisbon, as did the Allies. But no nation had enough skilled intelligence workers to avoid relying on outsiders. Japan augmented the information gathered by its naval and military attaches with reports from a host of sources, almost using-up the alphabet for their cover names. N was an Italian military attaché, S was a Hungarian attaché, M was a Portuguese lawyer.[6] The most important informant for the Japanese was the mysterious and mistrusted FUJI. British intelligence thought he was an employee in the Hungarian Legation in Lisbon, but FUJI was probably Waldemar Araujo, an ex-member of the Portuguese foreign service who had previously worked in Japan and South America before his too-obvious attachments to Axis intelligence and his high-living led to his ouster from Brazil. One of Araujo's subcontractors in Lisbon was a worker in Portugal's foreign office. Although Araujo would provide the Japanese with over eighty reports, its intelligence service had early-on begun suspecting that he was double agent planting false information that might even be used as cribs (words used as ways into code systems) by the British and American codebreakers.[7]

In Lisbon, the Allies were also deeply involved with questionable informants, and they had their own suspicions about them. Even the experienced German and English services had problems. Both were taken-in by double agents who supplied fictitious and false information. Two, Garbo and Ivan, became rather famous.[8] The British had a very special difficulty— although they didn't realize it until years later. Their men in Lisbon seemed to know everyone and everything, but all of their information was passed to Kim Philby. Philby supervised England's intelligence operations in Spain and Portugal while acting as a Soviet asset.[9]

Although the United States' effort began well, its Lisbon operation soon had its own troubles. The American's first agents were in its military intelligence services, augmented by some of the State Department's men. Even the predecessor of the Office of Strategic Services (OSS), the Office of the Coordinator of Information (COI), began its work in Lisbon with successes. In February 1942, the COI's leader William Donovan sent Robert Solborg to

Lisbon. Solborg was very professional and effective. Using the cover of a military attaché he recruited informants, sent agents into France and Spain to gather information, began secret negotiations for an invasion of North Africa, and laid plans for disrupting Portugal's economy if Germany invaded.[10]

Then, Solborg had a falling-out with Donovan over policies concerning a possible North Africa invasion.[11] Solborg was dismissed from the OSS but remained based in Lisbon for the remainder of the war working as an attaché for military intelligence. Unfortunately, soon after he had moved to Lisbon he had encountered what he considered amateurish and bungling competition as Donovan began sending more agents to Spain and Portugal and when the American's Federal Bureau of Investigation, the Office of War Information, and the OSS's group acquiring foreign publications, the IDC, began their efforts in Lisbon. For a time, there was even a man from the super-secret POND spy organization in Lisbon. The POND had been created by the army and state department because of their dislike and distrust of the OSS. [12]

The first of the new OSS agents in Portugal was Ray Olivera. Originally an investigator a for the United States Treasury and its narcotics bureau, by May 1942 he was in Lisbon working for the customs service fighting narcotics smuggling. But he was also working with the OSS under the cover name of Raymond Ortega and was soon housed in the United States' legation listed as a financial attaché. While Solborg was busy with his OSS operations in France and North Africa, Olivera handled projects in Portugal. Unfortunately, he entangled himself in some bizarre misadventures including conflicts over a State Department consular's sex and gambling scandal and some black market problems.[13] Olivera had also caused frictions within the American intelligence community in Portugal. Partly as a result of that, he was soon ordered back to the United States. Despite the efforts of the embassy's famous George F. Kennan to reconcile the differences between the OSS and the army, navy, FBI and the State Department's intelligence groups, he and the other diplomats in Lisbon were never able to stop the squabbling.[14]

Francis X. di Lucia, Olivera's replacement, stayed-on longer, through at least the beginning of summer of 1943.[15] Unfortunately, di Lucia also had a knack for alienating his intelligence colleagues.[16] He was a lawyer turned government employee who had worked for United States government agencies, including the Federal Bureau of Narcotics, investigating drug and tax crimes. His assignments had included serving in Italy in operations against the Mafia during the late 1930s. With the outbreak of war, and with the United States having new priorities, di Lucia, along with many others in Harry Anslinger's narcotics bureau, agreed to join the OSS.[17] His previous experiences should have led di Lucia to be discrete and cautious, but he was not. Like Olivera, he was a good undercover cop but not a diplomat. His first OSS assignment, in Spain, had been cut-short by the American ambassador's protests about his lack of discretion. That did not dampen di Lucia's ardor or style. As soon as he began his work in Lisbon he raised the ire of the other American agencies, even British intelligence. He squandered money, barely concealed his true job, trod on the territories of the other American

agents in Portugal, and was so poor at spy-craft that all his actions and informants were closely monitored by Germany's agents. One report on the "appalling" operations of the OSS in Portugal claimed that the agency hired so many informants that everyone knew when their payday was because huge numbers of people in Lisbon had broad smiles on their faces. As well, according to Britain's operatives, di Lucia was taken-in by several double agents. One of them worked in Germany's military intelligence arm; another was in the Czech secret service. One German the OSS hired (aka Lima de Fonesco) was almost brought to the United States to advise its intelligence agencies.[18]

di Lucia's most important source was a man with the OSS codename of 'Z' who claimed he had access to the Japan's offices in Lisbon. It wasn't long before the OSS worried that Z, like so many others, might be a double agent. In retrospect, it seems Z may have been Japan's FUJI, and yet another of those serving any and all who would pay them.

Back-story, JMA

While the Lisbon spy vs. spy dramas continued the Allies achieved several cryptanalytic triumphs. First, the United States' Signal Intelligence Service (an army agency soon to be renamed and renamed again) continued to read the high-level diplomatic messages sent on Japan's complex Purple automatic encryption machine. The Americans first conquered it in 1939 but almost immediately faced another diplomatic code adversary: Purple had a hand-based helper code system used to communicate with diplomatic posts that did not have one of the some ten Purple (also called JAA) devices. That new code, which also used an additive, was frequently changed and upgraded with so many significant alterations between the late 1930s and 1942 that the Americans gave each version a new name, ranging from J-11 to J-19. While JAA was automated, J-19 (also known as JAF) was a hand-worked system. It had a code book and two methods of encoding. One method was a columnar transposition; the other was an additive system that disguised the code terms with randomly selected numbers in order to hide the terms' frequencies. The Allies were reading some of the J-x messages by late 1941 but it wasn't until early 1942 that they had it under control. But that J-19 version remained a difficult system. It was so challenging that the Americans built one of their first new ingenious electric tabulator devices to overcome what had seemed the insurmountable manpower challenge posed by J-19. That Gee Whizzer was a marvel of its time, automatically testing possible solutions using a log-weight system on digraphs to see of sensible plain text was emerging as decodes were examined.[19] The Whizzer saved thousands of hours of numbing hand work.

While the army was battling J-19, the American navy was progressing in its struggles against Japan's naval systems and Germany's Enigma machines. In addition, the army's codebreakers were beginning to make advances against Japan's military and shipping systems in the Pacific.[20] Many of those achievements, especially the American attack on the German's Enigma and Japan's Purple, and the building of the American version of the Bombe device,

have received deep historical attention. In contrast, the conquests of the systems most related to 1944's Marshall-Dewey affair have not had their historical due.

That is especially true of the Japanese Military Attaché (JMA) system. It was a frustrating combination of one major and several subsidiary codes. The JMA family was used to communicate between Tokyo and the army attaches stationed around the world. The various 'JMs' carried important information, especially in the messages from Berlin, Moscow and Helsinki after World War II began. They even contained information on Soviet ciphers that proved valuable to the American army's secret efforts that later became the Venona project. Lou Benson, Venona's historian, credits the JMA intercepts with starting the agency on 'the Russian problem' in 1943 and providing information on Soviet codes and ciphers throughout the war.[21]

The major component of Japan's military attaché system was called JMA, at times labeled as JAS by the Americans.[22] It first appeared in 1940 and was a formidable challenge. It seemed very different from any of the previous Japanese codes and was an especially frustrating target because there was little traffic on it during its first two years. With few transmissions there is little chance of finding the encoding mistakes that give cryptanalysts unique opportunities to break into a system.[23] Britain's codebreakers had spotted the precursor of JMA, the '88' attaché system, during the late 1930s but had few people to devote to its solution. As a result, England's codemen were able to identify only a few patterns that yielded hints about the new (JMA/JAS) code of 1940. Busy with more critical systems, such as those of Germany's navy and army, Britain's codebreakers turned the problem over to the team of French crypto-experts who had fled to England.[24] How soon the Americans paid any attention to JMA is unknown, but it is certain they did so by 1941 when Britain and the United States agreed to jointly work on the exasperating target. [25]

After JMA became a top military objective Britain's analysts finally began their own attack. They started with almost no crypto-ammunition because the French team had accomplished little. The unique nature of JMA, little traffic on it, and Japan's frequent changes to it made it a forbidding adversary. As well, there had been no thefts of code books such as those that had helped the Americans with Japan's naval systems, nor were there the number and kind of publically available texts that had served as cribs for the attack on Purple.

The British made some gains by March 1941, but it took them another year to understand the general (cryptanalytic) workings of the system. Intense brainwork, months of deadening calculations, and, most importantly, brilliant cryptologic hunches by crypto-experts like Britain's Peter Baldwin and John Tiltman accounted for the progress. Tiltman and Baldwin were two of those 'born-to-be' codebreakers who used what was known about the Japanese mind-set and its older code systems to achieve major JMA breakthroughs by July 1942. They had explored the assumption that JMA used a two letter code for kana (Anglicized Japanese) syllables and for frequently used words and, perhaps, four letter codes for special terms. [26]

Their hours and hours of tabulations suggested that some random letters were added to each code letter in order to disguise it. [27]

But knowledge of the system remained at only the general level. Then, a very poor usage by a Japanese attaché in Vichy France led to Britain's truly amazing triumph. It is reported that the analysts in England were able to exploit a 'depth' of only five messages encrypted on the same settings (keys) to arrive at their insights into JMA's fundamentals.[28] They kept working throughout 1942, filling in their knowledge of the system and trying to reconstruct the meaning of the revealed codes.[29] The Americans joined-in with the thirty year old Sam Snyder and the young Frank Lewis heading a team of what soon grew to near one hundred analysts and translators.[30] The Americans also contributed another piece of automation, the JMA Machine. Its first model began operation in 1943. It reduced the amount of debilitating handwork needed to find the correct settings of one major part of JMA. Soon, the codebreakers of both nations began exploring the secondary JMA systems.[31]

Despite mechanization, JMA and its brother codes continued to be daunting challenges for the Allies and, importantly, for the suffering Japanese clerks who had to encode and decode messages. Ironically, the many complex safeguards built into JMA had led to the first major British entries into the system. Because JMA asked too much of code clerks there were critical errors as they employed shortcuts when preparing messages.[32]

Encoding JMA messages began with a clerk changing ideographic Japanese into simpler kana equivalents that sounded-out the original words. Then, the clerk went to a 26 by 26 code chart, found each secret term and its associated two letter code--or a four letter code for special terms. That step was difficult as the items in the table were not in alphabetical order, a feature designed for security.[33]

 After a clerk wrote-out each code term there was a much more demanding and error-prone series of steps designed to mask those terms. He had to go a 'key book' hundreds of pages long that contained over 135,000 randomized letters (not numbers as in other Japanese systems) and, hopefully, randomly select a starting point---a random starting point in the long list was needed so that there would be no telling repeats of the keys that set-up the encryption process for the code letters. Progressing letter-by-letter through the key book, the clerk wrote a key-letter below each code letter.

After that process was completed, the encoder turned to a version of a stand-by of codemakers, a Vigenere tableau (a 26 row by 26 column matrix of letters). The clerk used the key letter as the row indicator and the code letter as the column indicator and substituted the matrix's entry for the code letter.
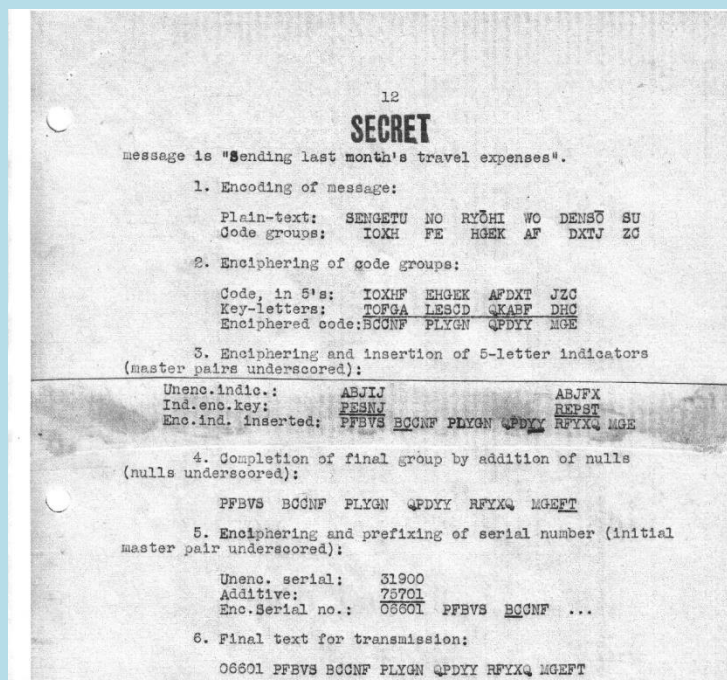
SECRET
14

Mixed Vigenère Tableau

	X B U G S E P W C I Y F T	O L R J A V H Z Q K D N M	
A	B Y P I T C R E M W F O X	H N S G L J V D U A Q K Z	A
B	Y P I T C R E M W F O X H	N S G L J V D U A Q K Z B	B
C	P I T C R E M W F O X H N	S G L J V D U A Q K Z B Y	C
D	I T C R E M W F O X H N S	G L J V D U A Q K Z B Y P	D
E	T C R E M W F O X H N S G	L J V D U A Q K Z B Y P I	E
F	C R E M W F O X H N S G L	J V D U A Q K Z B Y P I T	F
G	R E M W F O X H N S G L J	V D U A Q K Z B Y P I T C	G
H	E M W F O X H N S G L J V	D U A Q K Z B Y P I T C R	H
I	M W F O X H N S G L J V D	U A Q K Z B Y P I T C R E	I
J	W F O X H N S G L J V D U	A Q K Z B Y P I T C R E M	J
K	F O X H N S G L J V D U A	Q K Z B Y P I T C R E M W	K
L	O X H N S G L J V D U A Q	K Z B Y P I T C R E M W F	L
M	X H N S G L J V D U A Q K	Z B Y P I T C R E M W F O	M
	X B U G S E P W C I Y F T	O L R J A V H Z Q K D N M	

Much more was demanded of the clerk. He had to keep track of his starting and ending points in the main key book, using a complex set of letters indicating pages, columns and entries then go to another table to encrypt them. Those encrypted keys were placed in designated areas of the message. In addition to that, the clerk has to use yet another table to mask each message's serial number. The demands were as onerous for the Japanese clerks receiving the messages. They had to spend almost as much time decrypting as the sender had spent encrypting. At least one attaché begged Tokyo to shift to a machine-based system like Purple or the Japanese Navy's Coral machine because the hand-based JMA was so labor intensive. Another pleaded for extra manpower because he was overwhelmed by the JMA work.

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                              12
                           SECRET
         message is "Sending last month's travel expenses".

               1. Encoding of message:

                  Plain-text:   SENGETU  NO   RYOHI  WO   DENSO  SU
                  Code groups:   IOXH    FE   HGEK   AF   DXTJ   ZC

               2. Enciphering of code groups:

                  Code, in 5's:   IOXHF  EHGEK  AFDXT  JZC
                  Key-letters:    TOFGA  LESCD  QKABF  DHC
                  Enciphered code:BCCNF  PLYGN  QPDYY  MGE

               3. Enciphering and insertion of 5-letter indicators
           (master pairs underscored):

                  Unenc.indic.:      ABJIJ                ABJFX
                  Ind.enc.key:       FESNJ                REPST
                  Enc.ind. inserted: PFBVS BCCNF PLYGN QPDYY RFYXQ MGE

               4. Completion of final group by addition of nulls
           (nulls underscored):

                  PFBVS  BCCNF  PLYGN  QPDYY  RFYXQ  MGEFT

               5. Enciphering and prefixing of serial number (initial
           master pair underscored):

                  Unenc. serial:   31900
                  Additive:        75701
                  Enc.Serial no.:  06601  PFBVS  BCCNF ...

               6. Final text for transmission:

                  06601 PFBVS BCCNF PLYGN QPDYY RFYXQ MGEFT
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Of course, the Allies faced a much greater challenge than did Japan's attaches, even after they understood the fundamental nature of JMA. The British and Americans had to find the keys for the codes, determine the specifics of the tableau, the keys to the tableau, the keys for the indicators and the serial numbers—and, then, what the code terms meant. Identifying the meaning of the codes, called 'book-breaking', was a task that depended more on the intuitions that come from being a born codebreaker than did identifying the several keys.

After uncovering the general features of JMA, the Allied cryptanalysts predicted they might never have a final solution. From previous experience with Japan's systems they anticipated frequent changes to the various tables and, most distressing, the code book. They were correct. The first alteration came very soon. The Vigenere tableau was changed from a typical one (straight) to one with random allocation of letters (mixed) in each of the rows. In reaction, by 1942 the Americans devised the JMA Machine, an apparatus to deal with the tableau. Using off-the-shelf technologies, it had a paper tape reader with row indicator keys punched into it, a large IBM tabulating machine plugboard wired to imitate the tableau, an electric typewriter for entering the code-text key, and another typewriter that printed the deciphered letters. The device was later upgraded and then replaced by a more sophisticated version, the MATTHEW.[34]

Automation could not, however, overcome the main hurdles in the JMA codes. In addition, the Allies had to continue to struggle against at least three, perhaps five, other attaché codes at a time: JAR, JAS-1, JAT, and a JAU and JBZ.[35] JAR was a one-time pad system that seemed impenetrable because the 'additives' that masked each code letter were never repeated. JAS-1 was similar to JAS but was used so infrequently that it resisted attack.

JAT, which was introduced in 1943, was a simpler version of JMA/JAS and was open to penetration.[36] It was used to transmit cryptologic information, including the text of intercepts of enemy messages. Employing JAT seems to have been a lapse in Japan's judgment although it was created to avoid placing cribs in the main JMA messages. The texts JAT carried did become an important source of cribs for the Allies who used them for access to JMA. In addition, the Allied successes against Purple and J-19 aided the battle against JMA.[37]

All the efforts against the various JMA codes were worthwhile. JMAs carried important information on Axis capabilities and intentions, especially the main JMA system. Although much of what was sent on the primary JMA was trivial, it yielded some intelligence gems. William Friedman, the American army's lead codebreaker, considered it the most important system besides Purple. [38] From JMA intercepts the Allies learned about Hitler's Atlantic defenses, Axis military equipment, and that the America's diplomatic code systems had been breached.[39]

The Allies paid increased attention to the main JMA problem after November 1942 when they were first able to read some messages, but were soon frustrated when the Japanese began more rounds of changes to the system. The Allies' worries deepened after they learned the Japanese had always planned to alter the main key book every six months and the 26 x 26 conversion square every ten days. Besides the key book and 'square' substitutions, changes to the tableau seem to have been relatively frequent, as were those to the other key books. There were also different codebooks ready for use.

With each alteration came an intelligence pause.[40] By February 1943, there had been six major versions of JMA and by 1945 there had been ten--with at least four versions of the code book.[41] With the introduction of each change, the Allied codebreakers struggled to find solutions. Sometimes their battle was relatively brief, such as when just the tableau or one of the short key books were altered, but when the code or the main key book was changed weeks went by before even partial message reading became possible. [42]

Unfortunately, the recurring changes to JMA and lack of British and American consistent record-keeping make it difficult to trace the precise history of the successful in-time reading of JMA.[43] The British and Americans understood the code's cryptanalytic features by summer 1942, but while there are hints the British may have read portions of a message or so that August,[44] the best evidence indicates that messages were not read on any immediate and regular basis until November 1942. Then, changes to the system led to a blackout until January 1943. Some reading was done in February and perhaps March, and at least one message was currently read in April 1943. Significant to the history of the Marshall-Dewey affair of 1944, May 1943 seems to have been mostly dark. There were at least partial

successes in June, July and August as the American and British codebreakers were nearing full reconstruction of the system after the Japanese had made significant changes, perhaps including JMA's code book.

Of great importance, there was something that had compensated for the JMA's blackout periods after 1942: Purple and J-19 were being read and they carried much information that paralleled what was on JMA, as well as much about JMA-related matters. The continued penetration of the two systems proved critical when the chaos of Lisbon's undercover world, the frictions between the OSS and the American military, and the ambitions and naiveté of Francis di Lucia began coming together in April 1943.

Back-story, Skullduggery

In mid-April 1943 the American agent Francis di Lucia sent OSS' headquarters in the United States a confidential report on the type of information gathered by Japan's military (army) attaché in Lisbon. It was quickly and proudly forwarded to the army and navy's intelligence branches. To the disappointment of the OSS, General George V. Strong, the commander of army intelligence (G-2) who had always distrusted the OSS, was not impressed--or pleased. His staff soon discovered the report paraphrased the contents of a Japanese message the army had intercepted a few weeks previously.[45] Strong worried that the OSS had broken its pledge not to engage in codebreaking and had read that intercepted message or that a double agent had fed the same information to both Japan's attaché and the OSS. [46]

Strong soon learned that although the OSS had established its own intercept and codebreaking centers in New York and California in 1942, the military and FBI had convinced President Roosevelt to have those sites turned-over to the army and navy. Roosevelt was also convinced to order the OSS to never again try to engage in cryptanalysis.[47] Fortunately for the OSS, Carter Clarke, the army's supervisor of its highest level codebreaking activities, informed Strong that Donovan's men were no longer engaged in cryptanalysis. However, Strong mistakenly concluded that the OSS was monitoring Japanese traffic in the Pacific zone and launched another protest.[48]

After Clarke's initial report on the OSS's activities was reviewed tensions subsided. But Strong's suspicions of OSS misbehavior resurfaced in May when an OSS agent in Lisbon sent his superiors in Washington some pages that his informant Z claimed were copies of both the original and a coded version of a message he had obtained from the Lisbon offices of Japan's attaches. Whether the offices were those of the military or naval or air attaché was unclear. Expecting kudos, the pages were forwarded to military intelligence on May 20, accompanied by an inquiry as to what further work the Lisbon agent should perform in order to continue to help the army and the war effort.[49]

Immediately, there was anger, disappointment and recrimination. It did not take long for the army to respond not with thanks but with a rejection and more than a bit of a slap-on-the-

wrist. The army's General Frank Stoner stated the code used for the message was a minor and an unimportant one, so trivial the army had stopped working on it and that the type of information the system usually contained was not worth any risk to the Lisbon agent.[50]

That did not end the problem. The situation became critical and the army-OSS interactions soon had the flavor of Lisbon's amateurish spy-on-spy world. There was an explosion after America's codebreakers began reading Japanese messages hinting that its radio spies had learned of the Lisbon attaché's offices being breached—perhaps by reading secret American transmissions about the OSS' activities. In reaction, the American army's leaders fretted over the security of their nation's codes, even more than before. They had recently discovered their military attaché system had been penetrated by the Italians early in the war and, through an intercepted message earlier in 1943, that the Finns and Japanese had broken into the state departments 'strip' cipher system, its most secure one.[51]

As anxieties over the security of America's codes worsened an extraordinary episode began at the end of June. The Americans intercepted another startling message on the high-level Purple / J-19 systems. Japan's ambassador in Rome reported to Tokyo that the Italian military attaché's offices in Italy had learned that an American espionage agency had all knowledge about Japan's ministry in Lisbon and even had its codebooks. As the Allies continued reading Japan's Purple and J-19 messages, they intercepted a flurry of communications between Rome, Tokyo, Madrid and Lisbon over this latest Portuguese issue.[52] Tokyo demanded to know the source of the information, the exact nature of the violation of the Lisbon offices, the facts about what had happened, and if the offices were now completely secure.

In response, Lisbon's men protested and declared there had been no compromise. They emphasized their building was physically secure and that all their Portuguese employees were loyal. That did not satisfy Tokyo. A formal investigation was ordered to gain the specifics of who informed the Italian attaché and exactly what codes had been stolen. Madrid was ordered to rush an investigator to Portugal. Once there, he alienated the staff. There were threats of resignation.

Meanwhile, Tokyo began suspecting the whole affair was just an underhanded deception by the Americans who wanted to throw Japan off-balance. There was also a fear that the Lisbon problem was being used to plant cribs in Japan's messages. However, still a bit worried that it was perhaps the JMA code that had been stolen, Tokyo's intelligence leaders once again demanded more facts, especially about the Italian's source of information. In response, they were told only that it was an "Italian in Portugal". Such a vague description did not satisfy anyone.

The question of the source had also become important to the Americans. They now worried that the culprit was not Japan intercepting messages but a spy in their midst who had told the Japanese about the OSS' Z report and stolen messages. As a result, the United States also began a search for that illusive 'Italian' and for final answers to any remaining questions

about what was now believed to be a theft of the JMA military attaché codes through a black-bag "break-in".

The Japanese investigators could only report that besides the Italian naval attaché there was an Italian resident in Lisbon known to be in contact with Allied intelligence but, the Japanese stated, he was not trusted and certainly unlikely to be able to steal any documents. Soon, communications from Tokyo suggested the wrongdoer had been discovered: It was FUJI, they declared! Japan's investigators believed he had planted false rumors about the attaché code being stolen.

With that, it was decided that the codes had been and were safe, that no codebooks had been pilfered, the Lisbon offices had not been entered, and, once again, that all their Portuguese employees were loyal. For Japan, the crisis was over and they had no need to find the 'Italian'.

But the emergency continued for the Americans who had yet to learn of Japan's conclusion. Carter Clarke, who had been tasked to do another and deeper investigation, launched an intensive search. Clarke contacted the OSS in Washington. Its representatives assured him they had not done any more codebreaking and that the organization had not ordered any clandestine action against Japan's offices in Lisbon. There was a caveat, however. The OSS's leaders admitted it did not have the records on Z who, they intimated, might have stolen the documents on his own. Clarke remained suspicious.[53] After Clarke's inquiry at the OSS he questioned George Kennan of the State Department's Lisbon office who was on a brief respite in Washington. Not much was learned and Clarke had little to report to General Strong, his superior.

Soon, the army came to believe that while the OSS' central office may not have instigated the attaché-office operation one of its men in London may have more than hinted to di Lucia that he should take such aggressive action. In addition to the army's continued qualms about the OSS, one respected historian believed there were also some lingering suspicions within the army about the American State Department's role. David Alvarez concluded that George Kennan had approved of di Lucia's actions when Kennan was in Lisbon and that it was Kennan's reporting of it to Washington on a State Department code system being read by the Japanese that led to Japan's apprehensions about its Lisbon office's security. [54]

Clarke had found no definite answers concerning the role of the OSS during his second investigation, but that did not deter him from condemning Donovan's organization--and doing so in the strongest language. The fiery words in Clarke's report to his superior were soon repeated by Strong in his July 6th message to General Marshall. After giving the facts of Clarke's investigation, Strong declared the OSS' amateurish actions were leading to a cryptologic and intelligence "catastrophe". Strong predicted the Japanese would close-down JMA, perhaps even Purple and J-19, leaving the Allies blind at a critical point in the war. Strong recommended to Marshall that all the OSS' agents in Portugal and Spain be removed

and that the OSS be prevented from conducting secret intelligence operations in any neutral country.[55]

Strong followed his letter to Marshall with one to Sir Stewart Menzies, the head of British intelligence.[56] Strong, embarrassed by the Lisbon affair and worried about the loss of England's trust, described the "rogue" actions by the OSS and condemned them. Menzies replied that he already knew about the attaché problem. He forgave the Americans and then revealed that he thought he knew who it was that let the Japanese learn of the theft.

Menzies pointed to an American employee with an Italian name who had a habit of being an indiscrete braggart. Menzies' description fit none other than Francis di Lucia! [57]

At the same time, General Marshall was letting the White House know of his deep worries about the safety of the Ultra and Magic secrets.[58]In response, President Roosevelt signaled that all should be done to discover the facts of the Lisbon problem. Donovan had no choice than to allow another investigation at the OSS, one directed by Col. C. R. Peck of the Joint Chiefs of Staff. This time the vital missing information on Z and the attaché office penetration was discovered--to Donovan's pleasant surprise. The OSS records showed there had been no break-in, no traces of a theft had been left and no OSS personnel had been directly involved. It was reported that two Portuguese employees in Japan's naval and military attachés' offices had taken the documents, ones that were discards. Donovan's men also reported the OSS had always had clearance from the military and the State Department for paying 'assets' to spy on their employers. Of great significance, after a check with the army's codebreakers, the OSS could also tell the Joint Chief's investigators there was no indication the Japanese had permanently stopped using any of their code systems. [59]

By the end of July, Donovan's office seemed cleared of any Lisbon wrongdoing, but remembering Japan's suspicions, and soon discovering there were some changes in the Japanese codes, General Strong resumed his lobbying against the OSS. He was not very successful. As a result, in late summer 1943 no further action was taken in America or Japan. The 'Lisbon problem' appeared to have been forgotten.

The crisis did seem over. The Japanese again declared Lisbon secure and the American military once again backed-away from its attack on the OSS, but only after cooperating with the British to pressure Donovan to end what were called "positive operations" in Spain and Portugal. Donovan signaled he would limit his people to counter-espionage (X-2) activities using more discrete agents and, in essence, to have them controlled by the British in exchange for the OSS finally having some access to the information gleaned from the Ultra readings of Germany's most important secret messages.

Then, there was a resurgence of concerns. In late summer 1943, although the Allies thought Lisbon's JMA crisis had ended, they experienced moments of deep anxiety. At the end of July they discovered that J-19 had been closed-down. However, it took the Americans only three months to begin reading JBA (J20/TOKI), its replacement---and they continued to read Purple. But new and grave fears about JMA arose. JMA was partially read during August but in September successes declined. The Allies knew that JMA was still in operation

but sensed another round of significant changes was beginning. October saw only some sporadic readings and November was bleak. Early December was only a little better.

Fortunately, by mid-December there was a turnaround, a major one! There are some indications the Allies' had overcome a change in the JMA code book but William F. Friedman thought the agonizing near three month battle had been against a change in JMA's main enciphering key book.[60] Whatever the technical crypto enemies of winter 1943 were, from the beginning of 1944 to the end of the war, JMA messages were read almost as soon as they were transmitted. That victory was due to Japan being unable to continue its frequent alternations to JMA and to the Allies finally had both the experience and people they needed. The British and American analysts were also aided by an increase in sloppy procedures that provided ways to turn partly read messages into fully readable ones.

Also, by the end of 1943 the OSS was beginning to have some successes in Lisbon. Donovan had not surrendered completely or forever to the army's pressures to withdraw from any covert work. The OSS continued its secret positive intelligence (SI) operations in other neutral countries and even rebuilt a large SI office in Portugal. More important, it revitalized its X-2 efforts against the Japanese in Lisbon. Under the direction of men such as Paul Blum, paid informants in the attaché's offices provided lengthy reports on day-to-day activities, documents from wastebaskets, and stolen files, even a ciphered text or two.[61] Other 'assets' provided full biographies of the attachés and their girlfriends—and copies of the paper tapes of telegraph messages sent through the Portuguese communications service. [62]

The results of a new round of covert operations against the Japanese in Lisbon in 1944 and the information gained through reading JMA, led to findings by the OSS that add more twists to the Marshall-Dewey story. The Americans discovered that Japan's standing in Portugal had been severely damaged by its take-over of the Portuguese Island of Timor in Southeast Asia with the result that little information was going to any attaché. Others sources had also dried up because of frictions between Germany and Japan. The outcome, according to the OSS, was that the Japanese attaché operation in Portugal had become just a newspaper clipping service, something not deserving much attention.[63]

Front Story: **Politics in Washington, Tulsa, Albany**

Interest in the Lisbon affair did not end, however. Although it was more than a year after Japan concluded that nothing untoward had happened in Lisbon JMA again became more than a technical crypto-problem. The reappearance of JMA as a political issue occurred in late September 1944 after General George C. Marshall heard a credible rumor that was circulating in Washington's higher circles, one that, if true, could endanger the war effort as well as America's political stability. Already distraught over leaks concerning codebreaking that had allowed the recent American shoot-down of the plane carrying Japan's Admiral Yamamoto, Marshall decided to take action.[64]

On September 25th Colonel Carter Clarke was hastily summoned to the Washington offices of Major General Clayton Bissell, a higher-up in army intelligence. Clarke, a rather

gruff man who had worked his way through the ranks rather than being the product of a West Point education, was not one to question or resist orders, no matter how strange they were.[65] Bissel ordered him to go home, find some civilian clothes to wear, and to be ready to fly across the country to Tulsa, Oklahoma. Clarke was told only that he was to deliver a top secret letter from General Marshall to Governor Thomas E. Dewey who was on his way home to New York after campaigning for the presidency in the West.[66] Clarke was to meet with Dewey alone, watch him open the sealed envelope and read the letter, obtain his answer, and then return to Washington with the letter. Clarke was not told the letter was in response to General Marshall's fear that Dewey was about to announce that before the 1941 Pearl Harbor debacle America had read coded Japanese messages about the impending attack and that Dewey would perhaps demand that Franklin Roosevelt be impeached. Nor was Clarke told that General Marshall had been considering contacting the Republican Party's congressional leaders about his worries over the possible Pearl Harbor revelations by Dewey or any congressional investigations.[67]

Clarke learned somewhat more about his mission and why he was selected on his next stop at the Pentagon where he was instructed to read Marshall's letter. After viewing its contents he realized he had been picked for the trip because he was such an important figure in the army's secret intelligence branch that housed the codebreaking SIS. Because of his oversight of the Ultra and Magic systems Clarke already knew all the secrets included in what he appreciated was an historic and dangerous communication. It revealed more than the reading of Pearl Harbor messages. It told of the ongoing Allied successes against all the Axis nations' code and cipher systems, and it asked Dewey to be silent about them as well as about the Pearl Harbor communications.

Unexplained, but vitally important to the history of the Marshall-Dewey issue, although Clarke was privy to all the nation's codebreaking secrets, had led the 1943 Lisbon affair investigations, and had access to information about day-to-day operations at the SIS, he did not make any comments about one special paragraph in Marshall's letter. The General had asserted that JMA had been unreadable for more than a year because of the OSS' ineptness.

Before he left the Pentagon Clarke was informed that General Marshall's staff had arranged flight and other travel arrangements. He was then warned of a serious complication: Marshall's office had not yet found a means of contacting Governor Dewey in a way that would keep the proposed meeting totally secret and that would ensure that Dewey would not use Marshall's attempt to silence him to his political advantage. Clarke was warned that after arriving in Tulsa he might have to arrange the meeting by himself. Clarke was advised to call Washington once he reached Oklahoma to see if any progress had been made before he launched on his possibly surprise visit to Dewey.

After retrieving his suit of civilian clothes from storage, and having the coat and pants pressed, Clarke rushed to Washington's airport and began a grueling flight to Tulsa. He had been booked on one of the regular and uncomfortable army transport runs. In Tulsa, he had to stay in one the old hotels founded as cooperatives for homeless men. Hotel de Gink had been

tuned into quarters for transient officers-- not a typical stop for high-status military men. It did not even serve breakfast, nor did it have an acceptable barbershop. Clarke did not complain, however.

Fearing that an unannounced overture to Governor Dewey might be rejected, Clarke first contacted Roger Randolph, an intermediary known to the army. Randolph arranged a meeting with the Tulsa oilman William Skelly, one of Dewey's major backers and his campaign manager. Although Clarke was unable to give details, he convinced Skelly to take the first steps towards a meeting with Dewey before the governor left for New York. Skelly met Clarke at Dewey's hotel, knowing only that Clarke carried an important message. Despite Skelly's being close to Governor Dewey, Clarke had to wait and wait in the hotel's lobby before Dewey agreed to see him. There were good reasons for Dewey's hesitation. He was being asked to meet alone with an unknown civilian who had been reluctant to even inform Dewey that he had been sent by General Marshall, a man well-known to Dewey. It was only after Clarke wrote Marshall's name on a slip of paper and sent it to Dewey's suite in a sealed envelope that he was allowed upstairs.

The meeting was a near disaster. Dewey read the first two paragraphs of Marshall's letter, put it down, and then told Clarke that he believed the letter and visit were parts of a political ploy by Franklin Roosevelt, a man who, he said, should be removed from office. He would read no more, he declared. He then declared he knew a gentleman like Marshall would never order such a thing as this visit on his own.[68] Dewey went much further. He stated that in any case he would not pledge to keep secret what he already knew from other sources about the Pearl Harbor warnings, despite being previously informed that at least two related Japanese code systems were still in operation and being read by America's codebreakers. Dewey had reason to trust those who had told him about the Pearl Harbor messages and current systems. One of his many sources was Hugh Aloysius Drum, the just retired high-ranking American Army general who headed New York's National Guard and who traveling with Dewey. Another source was a fellow Republican, William 'Wild Bill' Donovan, the OSS' leader.

Although angered by not being allowed to keep the copy of Marshall's letter, Dewey was willing to phone Marshall to discuss its contents. Clarke killed that idea. He dissuaded Dewey from calling by saying that the meeting was so secret that nothing about it should be mentioned on any phone. Dewey acquiesced and also relented a bit. He told Clarke that he would be willing to meet with General Marshall or his representative the next day after he returned to Albany, New York.

Not having permission to do anything besides report Dewey's answer, the already tired Clarke left Tulsa that night with only the unread letter and Dewey's offer of a second meeting. After only a few hours sleep, partly because he had to write his report while on the army transport plane, Clarke was in General Marshall's office early the next morning.[69] Although disappointed by Clarke's statements about Dewey's decision and fearful about the fate of the Allies' 'secrets war', Marshall decided to try again. After Clarke left his office Marshall composed a new version of his letter. After a few hours he recalled Clark and ordered him to

immediately fly to Albany, this time giving him permission to discuss any technical matters with Dewey.

The nearly exhausted Clarke, again dressed in civilian clothes, reached Albany by noon on the 28th. When he was ushered into Dewey's office he was surprised to find the governor had another man with him, Eliot V. Bell. Bell was a friend, political ally, and New York's superintendent of Banks. Sensing that Clarke was upset about having someone else in the room, Dewey declared that he was not going to go forward on such a politically sensitive matter unless he had a witness and be allowed to keep the copy of Marshall's new letter. Clarke protested both demands, he had to. After Dewey and Bell stated that America's codebreaking efforts, including those against Germany, were the "worst kept secret in Washington", implying there were no true secrets to be kept, Clarke became a bit aggressive. He accused them of raising false issues and of smearing the reputation of General Marshall.

Although Marshall's new letter gave room for Dewey to avoid pledging silence about any matters he already knew about, or would learn from sources other than the letter, Dewey remained unyielding. He refused to read more than the first paragraphs of the newest letter. He again told Clarke that the affair still had the marks of a Roosevelt plot, especially because it was implausible that Japan was still using the Pearl Harbor and Midway related systems after so much information about them had leaked out. Then, for a moment, Clarke thought Dewey was going to agree to be silent. Dewey told how in the 1930s he had convinced his old friend Herbert O. Yardley to hold-back on publishing a second book on how Yardley's American Black Chamber teams had broken Japanese and other nations' codes during the 1920s.

That was not followed by the pledge Marshall desired, however. It seemed the second meeting was a failure and that Dewey felt free to talk publically about what he knew and would learn of Magic (Japanese) and, perhaps, Ultra (German) intelligence. But once again Dewey relented and indicated he might continue to read the letter if he used the telephone and spoke directly to his friend General Marshall. Clarke was appalled and again emphasized that phoning was too dangerous. Dewey countered, stating he had a safe and direct line, one that was frequently checked for taps because New York's Democratic politicians had a habit of tapping phones and planting microphones in opponents' offices.

This time, Clarke could not stop Dewey from making the call. After the Dewey-Marshall phone conversation, Marshall gave Clarke permission to have Eliot Bell present and for him to learn of the letter's contents. Marshall also told Clarke to leave the secret letter with Governor Dewey, if necessary. With that, Dewey and Bell began reading Marshall's second letter. Within a few seconds Dewey once again stated that there was no true secrecy issue. "Well, I'll be damned if I believe that the Japs are still using those two codes," he said.

Clarke, now with permission to discuss all technical details responded with an answer that would soon appear contradictory. He said the codes were still in use and very important to the war effort. He then explained how difficult it was to close-down and replace any crypto-

system and how any major changes were so difficult to implement that all crypto-agencies were reluctant to accept rumors about their systems being compromised.

When Dewey and Bell asked why Marshall's letter mentioned General Eisenhower and Winston Churchill, Carter Clarke began to tell-all. To convince the two men how critically important secrecy was, he cited how Britain had been and still was worried about the United States ability to keep any secret and how vital the reading of Germany's army, navy and intelligence agency codes was to the war in Europe –and, with emphasis, to continued British-American cooperation.[70]

JMA Gets a New History

JMA then entered the conversation, becoming the most vital part of Marshall's argument. With evident disbelief and displeasure, Dewey questioned Clarke about Marshall's statement that some of Donovan's OSS people had on-their-own "instituted a secret search of the Japanese Embassy offices in Portugal" with the result of the entire military attaché code all over the world being changed—and with the Allied codebreakers shut-out after more than a year of intense effort. Dewey intimated that he did not believe the OSS had committed such a blunder as he knew many of Donovan's men and found them better at spy games than the military officers usually assigned to such duty, such as the ones who failed to interpret all the warnings messages about Pearl Harbor.

Clarke immediately came to Marshall's, and the army and navy intelligence arms', defense. He described how the critical messages that pointed to Peal Harbor were received too late to be of use.

Then, Clarke asserted something that remains difficult to explain or defend: He confirmed Marshall's claim that the Lisbon attaché's office had been searched, implying a break-in, and that JMA had been dark for over a year. That incorrect and apparently self-serving statement came despite Clarke having access to all the details of the army codemen's work, being quite close to its leaders, including William F. Freidman, and of being involved in the Lisbon investigations of summer 1943. While General Marshall's assertions might be excused by his being misinformed by his staff, Clarke's cannot.[71]

Clarke's action is more puzzling because a few months after the Albany meeting a report for President Roosevelt that was highly critical of the OSS, and that was based on inside information from army intelligence sources, stated that while the attempt by the OSS to "plant some agents" inside the Japanese naval attaché's office led to a change in a critical Japanese code, the Allies were back to reading it within ten weeks.[72] As perplexing, William Friedman would write in his in-house lectures for young American government postwar cryptanalysts that JMA was under full control within three months of the major change of late summer 1943.[73]

Governor Dewey and Eliot Bell knew nothing of those facts in September 1944 when they told Carter Clarke they were going into a separate room to discuss Clarke's statements and to determine Dewey's response to General Marshall's letter. After close to a half-hour

they returned and shocked Carter Clarke: Dewey told him he had no response, positive or negative.   Clarke immediately left for Washington with the devastating news. The next morning he informed General Marshall. He, too, was dismayed. He had no way of knowing if Dewey would endanger America's "one great" source of information, its codebreaking capabilities. There was no effective secrecy act that could be used to threaten Dewey and further contacts with him might make everything public and work against the nation's war effort, as well as against Franklin Roosevelt. There was another reason for Marshall's anxiety. Although Dewey might decide to protect America's secrets, the Republican leadership might demand that he take advantage of anything that might help defeat Roosevelt.

Politics and Patriotism

There was something working in Marshall's favor, but it was something that Carter Clarke later claimed he was ashamed to have been involved with: Marshall's letter and Clarke's visit put Dewey in a 'political corner'. If Dewey publically revealed the Pearl Harbor codebreaking he could be accused of knowingly endangering the ongoing war effort and the lives of thousands of soldiers and sailors. Such an accusation would certainly cost Dewey the election. Such an accusation was more than a remote possibility. Clarke later implied that someone in Franklin Roosevelt's political entourage, if not General Marshall, might have been willing to state that Dewey had been informed of the consequences of revealing the codebreaking secrets.[74]

There was something else that may have shaped Governor Dewey's decision. Although the 1944 campaign was filled with mudslinging it was more an age of gentlemen, honor, and trust than in some later periods in America's political history. Whatever the cause, Dewey refrained from any mention of codes or codebreaking during the election campaign.

Carter Clarke also remained silent. His continued failure to reveal that the JMA and J-19/J-20 codes were read within a few months after the 1943 Lisbon affair was determined by his need to follow orders, the fear of contradicting Marshal's letter, and by his adherence to the patriot's code. He was and remained torn because keeping silent ran against his political inclinations. Clarke was very politically conservative. Providing Governor Dewey with ammunition against Roosevelt fit with his politics while keeping to Marshall's story of the JMA disaster ran against them. Clarke never discussed why he remained quiet, but the reason seems to have been his deep commitment to do everything possible to protect his nation's codebreaking and intelligence capabilities. Perhaps it was also a result his and his superiors' dislike of the OSS.[75]

Clarke's silence on the question of the why, when and how long the JMA code was unreadable also had a serious impact on the postwar intelligence community. The description of the supposed OSS-caused Lisbon disaster that appeared in the special new report on Donovan's organization that had been requested by President Roosevelt, the Park Report, helped convince Harry Truman, Roosevelt's successor, to end the OSS.[76]

[1]The fabled David Kahn was one of those who let the world know of the details of Clarke's visit when he published a declassified version of Clarke's remembrance in the April 1983 issue of *Cryptologia*. For Clarke's, "Statement for Record of Participation of Brig, Gen. Cater W. Clarke in the Transmittal of Letters From Gen. George C. Marshall to Gov. Thomas E. Dewey the Latter Part of September 1944," NARA RG457 SRH-043, Comment on Marshall-Dewey Exchange Concerning Pearl Harbor, Box 15. Previously, Kahn had included a copy of Marshall's second letter to Dewey in his 1967 book, *The Codebreakers*. The important second letter from Marshall to Dewey is available in the Friedman Collection on the NSA website with the document identification number A488117, at https://www.nsa.gov/news-features/declassified-documents/friedman-documents/assets/files/pearl-harbor/FOLDER_202/41766409080551.pdf. For the Friedman collection in general: https://www.nsa.gov/news-features/declassified-documents/friedman-documents/

[2] Insights into the debates over the possible Roosevelt conspiracy are given in: David Kaiser, "Conspiracy of Cock-up," *Intelligence and National Security*, 9 2 (April, 1994): 354-372; and, the related, Henry C. Clausen and Bruce Lee, *Pearl Harbor: Final Judgment* (NY: Crown Publishing, Inc., 1992). A more detailed view of codebreaking and the Pearl Harbor attack is, Parker, Frederick D. *Pearl Harbor Revisited: U.S. Navy Communications Intelligence 1924-1841* (NSA, Center for Cryptologic History, third ed., 2013). An informative critique of the stories of the OSS 'break-in' is in the overview of the related literature by a CIA reviewer, at https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol16no4/html/v17i1a09p_0001.htm.

[3] Wylie, Neville "An Amateur Learns His Job'? Special Operations Executive in Portugal, 1940-42," Journal *of Contemporary History,* 36, 3 (July. 2001): 441-457.

[4] On Estoril, http://blogs.angloinfo.com/lisbon-live/2015/03/14/the-grand-hotel-of-monte-estoril/, and Lochery, Neill, *Lisbon: War in the Shadows of the City of Light, 1939–1945 (*NY: United States: Public Affairs; 2011).

[5] The Unitarian connection to OSS activities is indicated in NARA RG 226 Entry 216 Box 5. A general view is in Weber, Ronald, *The Lisbon Route* (Lanham, MD: Ivan R. Dee, 2011).

[6] NARA RG457, SRH-254 Box 78, The Japanese Intelligence System MIS/WDGS 4 September 1945. Insights into Japan's codebreaking operations are found in, Chiharu Inaba. "Japanese Intelligence Operation In Scandinavia During World War II, Cryptographic Cooperation with the Finns and Onodera's activities in Sweden," *Scandinavian Journal of History,* 33. 2. (June 2008):122–138.

[7] On Araujo and much more on the Japanese beliefs concerning the security situation in Lisbon, NARA RG457 Box 878, Recent Messages Regarding the Compromise of Japanese Codes in Lisbon, A4148768, Morishima to Tokyo 8-26-1943. The Lisbon situation was so chaotic that some thought Araujo had been an employee of Spain.

[8] Lisbon was also a frequent host to other double agents such as Britain's and Japan's JOSEF.

[9]Philby, Kim, *My Silent War* (NY: Modern Library, 2002, c1968).

[10] Schoenbrun, David, *Soldiers of the Night: The Story of the French Resistance* (NY: E.P Dutton, 1981); Langer, William, *Our Vichy Gamble* (Hamden, CT: Archon Books, 1965); *Foreign Service of the United States*, 1944-1946.

[11] Smith, Bradley, *The Shadow Warriors: O.S.S. and the Origins of the CIA* (NY: Basic Books, 1983): 145-6.

[12] Stout, Mark, nd. "The Hazards of Private Spy Operations: The Pond: Running Agents for State, War, and the CIA," at, https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol48no3/pdf/v48i3a07p.pdf.

[13] RG 59 Dec. File, Box 5264. On Olivera and the counselors and the sex gambling scandals, RG226, Entry 210 Box 377, Wn 14225 Also RG226 Entry 210 Box 377 and Box 458, Olivera to Chief Western European Division OSS May 6, 1943 gives much on his problems and conflicts with Solborg, Kennan and the staff of the legation and has more on the story of the bizarre local consul's sex and gambling scandals. J. Ray Olivera was one of several of the leading men from the Federal Bureau of Narcotics that Harry Anslinger, its leader, brought to the OSS as he was helping William Donovan form his organization. Olivera continued his long and illustrious career as a narcotics officer serving around the world after he left the OSS, as did Francis di Lucia. Olivera dealt with some of the world's most dangerous gangsters, even in Hawaii and Cuba, and his investigations had links to Frank Sinatra's associates. See, Valentine, Douglas, *The Strength of the Wolf: The Secret History of the War on Drugs* (NY: Verso, 2004).

[14] On Kennan vs. OSS's X-2 expansion, RG 226 Entry 134, Box 299. On his role in general: Alvarez, David, "Tempest in An Embassy Trash Can," *World War II,* 1 (Jan-Feb 2008): 54-.

[15] RG 226 Entry 108b box 39, also RG 226 wn 14225, op cit.

[16] Intriguing, Olivera and Di Lucia are not on the list of OSS Personnel available at NARA. https://www.archives.gov/files/iwg/declassified-records/rg-226-oss/personnel-database.pdf.

17 Anslinger's FBN even provided the original corps of trainers for the OSS' Camp X where its men were trained for undercover work. See, McWilliams, John C., *The Protectors: Harry J. Anslinger and the Federal Bureau of Narcotics, 1930-1962* (Newark: University of Delaware Press, c1990).

18 The Park Report: A copy of the report is at https://www.scribd.com/doc/284321062/Park-Report-Memorandum-for-the-Record-Colonel-Park-s-Comments-on-OSS-Declassified-Top-Secret-Report-12-March-1945.

19 Samuel S, Snyder, Famous First Facts: Part 1: Pre-Computer Machine Cryptanalysis, NDSA Doc ID 4001133 at https://www.nsa.gov/news-features/declassified-documents/tech-journals/assets/files/famous-first-facts.pdf.

20 Ball, Desmond and Keiko Tamura (eds.), *Breaking Japanese Diplomatic Codes*, Australian National University, 2013. There were two different versions of the J-xx series. One type was a code and cipher while another was columnar transposition. See. Hanyok, Robert, '*West Wind Clear: Cryptology and the Winds Message Controversy A Documentary History*, *op cit.*, which states that J-19 was used from 21 June 1941 till 15 August 1943. Also http://chris-intel-corner.blogspot.com/2014/05/the-japanese-j-19-fuji-code_1.html.

21 Lou Benson, "Venona", at,https://archive.org/stream/VenonaDOCUMENTSPARTS12/Venona%20-%20DOCUMENTS%20-%20PARTS%201%20_%202-_djvu.txt, accessed 12-2016.

22 More than one reference had the term JRL-4 associated with JMA, with indications the British first used the term.

23 On Britain's codebreaking efforts: Denniston*, A., "*The government Code and Cipher School between the wars," *Intelligence and National Security,* 1 1 (1986): 49-70.

24 Erskine, Ralph & Peter Freeman, "Brigadier John Tiltman: One of Britain's' finest Cryptologists", *Cryptologia*, 27 4 (2003): 289-318.

25 On credit to the British, Friedman Collection, *op cit.*, "Colonel Corderman" 9-14 1943, ID A4148494.

26 The best desertion of the British attack is in, NARA RG457 HCC Box 1387, Cryptologic Codes and Ciphers, Japanese Military Attaché System, July 1942.

27 On the July breakthrough, Friedman Collection, *op cit.*, Friedman to Tiltman 1942, ID A275340. On JMA in general, Hinsley, F. and Alan Strip (eds.), *Codebreakers: The Inside Story of Bletchley Park* (Oxford: Oxford U. Pres, 2001.). On Baldwin, Bendixson, Terrance, "Sir Peter Baldwin obituary", *The Guardian*, 6 08 2010. Edward Drea, in an early article that was published before the release of critical documents stated that the Americans made the first breakthrough in September 1942 with regular reading beginning in July 1943,   Drea, Edward, "Were the Japanese Codes Secure," *Cryptologia, 19 2 (1995): 113-136.*

28 Ralph Erskine & Peter Freeman, *op cit.*

29 Freidman Collection, Tiltman to Friedman 5-29-1942, A275335. Informative on the Japanese systems and on the attacks against them: Smith, Michael, *The Emperor's Codes Bletchley Park and the Breaking of Japan's Secret Codes (*NY: Bantam, 2000) and

29 NSA OH 1976 1-10, Frank Rowlett Oral History, and Friedman Collection, "Colonel Corderman," 9-14 1943, A4148494; NSA Donovan, Peter and John Mack, *Codebreaking in the Pacific* (NY: Springer, 2014).

30 NSA OH 1976 1-10, Frank Rowlett Oral History, and Friedman Collection," Colonel Corderman," 9-14 1943, A4148494; NSA Donovan, Peter and John Mack, *Codebreaking in the Pacific* (NY: Springer, 2014).Oral History, Brig, John Tiltman, NSA-OH-04 through 07-78; Friedman Collection ID A70871, General Cryptanalytic Problem has an very informative section on the JMA work.

31 RG 457 HCC Box 1394 Japanese Additive System Deciphering Device.

32 On the general problem of Japan using systems too complex for the clerks: Friedman Collection, Friedman to Tiltman, August 1943, A275303.

33 This description of the JMA system relies heavily upon Tiltman's July 1942 communication to his American colleagues, See, NARA RG457, SRH-361, The Japanese Military Attaché System, July 1942.

34 Friedman Collection Japanese Military Attaché Translation Section, Language Branch. A70871.   For a slightly different description of the JMA Machine: Leroy H. Wheatley, Cryptanalytic Machines at NSA, 30 May 1953, now available at https://www.nsa.gov/news-features/declassified-documents/friedman-documents/assets/files/reports-research/FOLDER_107/41743419078275.pdf

35 Friedman Collection, Translation, A70871, op. cit.

36 http://chris-intel-corner.blogspot.com/2014/10/german-special-intelligence-m-138-strip.html, JAT: Introduction.

37 Friedman Collection, Translation, A70871, op. cit

[38] Friedman Collection, For Colonel Corderman, 9-27 1943, ID A4148494.

[39] The breach included the strip system. The most famous episode was the Italian's 1941 break-in at the U.S. embassy in Rome where they copied the diplomatic codebook and gave it to the Germans who used it to read critical transmissions such as those by the American military attaché in Egypt, Bonner Fellers.

[40] Friedman Collection, Translation, A70871

[41] Anonymous, "WWII Japanese Translations at Arlington Hall Station," *Cryptologia,* January 1979, pp. 1-16.:

[42] Friedman Collection, Mosie Gets His Square. 5 11 1945, A69336.

[43] The National Archives holds many items on the JMA and related systems in the RG457 Historic Cryptologic Collection series, but none yielded a solid chronology or full insight into the Lisbon problem. Most informative were items in boxes 854, 184, 185, 701, 1293, 713, 1007, 1018. The list of items may be found at https://www.nsa.gov/news-features/declassified-documents/nara-releases.

[44] WWII Japanese Translations at Arlington Hall Station," *Cryptologia*, January 1979, *op cit.*

[45] The specific Japanese system was not specified.

[46] NARA RG457, SRH113, "Selected Documents Concerning O.S.S. Operations in Lisbon, Spring 1943, 'Strong to Marshall' 7-7-43.

[47] Burke, Colin B., "What Black Chamber," at http://userpages.umbc.edu/~burke/whatossblack.pdf, and DCI Historical Series, *The History of SIGINT in the Central Intelligence Agency,1957-70*, vol 1, October 1971, 4-9; Robert L Benson, "The Army-Navy-FBI Comint Agreements of 1942," NSA Document ID 3726470, at https://www.nsa.gov/news-features/declassified-documents/cryptologic-spectrum/assets/files/Army_Navy_FBI_Comint.pdf

[48] The military was doing so after it had taken-over the old OSS station in California, Burke, *ibid*.

[49] General Magruder to Maj. General Dawson Olmstead, May 20 1943. The coded message was not the only item taken from the attaché's office in May, many telegrams were pilfered, seem, RG 226 - Entry 210 Box 468, QN 17136-7.

[50] SRH 113, Stoner to Magruder*, op cit,*

[51] NSA OH 1976 1-10, Frank Rowlett Oral History; Freidman Collection "Report on Broken Ciphers," A4148685.

[52] The major sources on the Japanese's fears and conclusions regarding the attaché episode, and many documents related to the American responses are in: NARA RG457 SRH-113 *op cit.,* and NARA R457 Box 878, Recent Messages Regarding the Compromise of Japanese Codes in Lisbon.

[53] "Memorandum for Chef of Staff, 6 July 1943, Possible Compromise, RG457 Box 878 "Recent Messages Regarding the Compromise of Japanese Codes in Lisbon.

[54] Alvarez, David, "Tempest in An Embassy Trash Can," *op cit.* A thorough search of state department message files at the National Archives did not result in finding the Kennan message.

[55] OSS, Memorandum to General Marshall 7 July 1943, SRH-113.

[56] Memorandum for Lt Col, O'Connor from Strong 6 July 1943; Memorandum for Major General G. V. Strong, from British Joint Staff Mission 13th July 1943, SHH-113.

[57] Di Lucia returned to service in the Federal Narcotics bureau and during the 1950s served as its representative in Rome. U.S. Government handbooks.

[58] Brown, Anthony Cave *The Last Hero: Wild Bill Donovan* (NY: Times Books, c1982), 305-7.

[59] Brown, Anthony Cave, *ibid.* A thorough search of the OSS and Donovan files at the National Archives failed to yield the critical letter on the second Lisbon investigation cited by Anthony Cave Brown. While the name, subject and to/from indexes to the RG229 OSS/Donovan microfilm collection did not contain entries for the critical Buxton to WJH July 23, 1943 letter, the A3304 roll index did have a citation. However, the cited roll, 29, did not contain the July 23 letter or related ones. No explanation was given for the problem. Despite the missing item, there is no reason to reject Cave Brown's description of the second investigation.

[60] Friedman Collection AD67564, Examples of Intelligence Gained From Cryptanalysis" 1 August 1946, p.7

[61] On later thefts of documents and ciphered text, NARA RG226, Entry 210 boxes 465, 468, 469, 470, 495,496, especially rg226 Entry 216 Box 6m Wn 26391.

[62] On the continuing SI and X2 operations vs. the Japanese, RG 226 Entry 211 Box 41 and RG 226 Entry108b Box 39.

[63] On the decline of Japan's Lisbon offices: RG226 Entry 211 Box 41, April 1944, WN 20364.

[64] "George C. Marshall Interviews and Reminiscences for Forrest C. Pogue, Tape 14, http://marshallfoundation.org/library/collection/george-c-marshall-interviews-reminiscences/#!/collection=341, http://marshallfoundation.org/library/digital-archive/tape-14-ultra-leak-dewey-1944-dill-marshall-relationship-politics-jcs-relations-fdr-atomic-bomb-development-use/

[65] On Clarke and his involvements including the meetings with Gov. Dewey: SRH 043 "Statement for the Record ...' *op cit."* This was also published in Cryptologia, 7 2 (Apr. 1983): 119-131. A short biography of Carter Clarke is at, https://en.wikipedia.org/wiki/Carter_W._Clarke

[66] The original copy of the first letter has not been discovered but the second letter (see below) has been reproduced several times. See, Friedman Collection, A488117. A copy of the first letter from Marshall may be found in Friedman Collection, "Introduction to Cryptanalysis," A62832. Forrest C. Pogue, in his, George *C. Marshall: Organizer of Victory* (NY: Viking Press. 1973), states something in the section on the Dewey affair, pp. 470-473, that makes the contents of Marshall's letter quite puzzling: Pogue stated the letter was composed by Marshall's intelligence staff, a group that had access to the facts of the Lisbon affair and the history of the Japanese codes.

[67] Forrest C. Pogue, *ibid.*

[68] The evidence indicates that President Roosevelt did not have prior knowledge of Marshall's approach to Dewey. Harry Hopkins, Roosevelt's confidant, was informed by Marshall at a later date in 1944 and Hopkins then told Roosevelt. Roosevelt, after exploring the issue, did not condemn Marshall's decision, nor did President Truman after he was in told of the 1944 meeting. Forrest C. Pogue, *ibid*, and, Bland, Larry L. (ed.), *George C. Marshall Interviews and Reminiscences for Forrest C. Pogue, Revised edition with an Introduction by Dr. Pogue* (Lexington, VA: George C. Marshall Research Foundation, 1991), pp. 409-411.

[69] George C Marshall Foundation," Recorded interview with General Carter W. Clarke, at the Westchester Apartments, on July 6, 1959, by Forrest C. Pogue," pp.18-20.

[70] Clarke did not tell Dewey of 1943's secret project to read Soviet messages, an effort that became known as Venona. Nor did he mention the crypto- triumph that led to the shoot-down of Japan's Admiral Yamamoto's plane in April 1943 or of the reading of the codes of the many small nations around the world.

[71] Freidman Collection," Introduction to Cryptanalysis VI," A62832, on Marshall's innocence.

[72] A copy of the Park Report is at https://www.scribd.com/doc/284321062/Park-Report-Memorandum-for-the-Record-Colonel-Park-s-Comments-on-OSS-Declassified-Top-Secret-Report-12-March-1945. The report seems to have mistaken J-19 for JMA, but in any case it did point to the compromised systems being reentered within ten weeks.

[73] There was some long lasting confusion over JMA and the OSS, reflected even in William F. Friedman's writings. See, for example, Friedman collection A38363,"SCAMP 58 Lecture".

[74] George C Marshall Foundation," Recorded interview with General Carter W. Clarke, at the Westchester Apartments, on July 6, 1959, by Forrest C. Pogue," p. 20.

[75] George C. Marshall Foundation," op cit., pp. 18-20.

[76] Park Report, *op cit*.