ON WATCH

Profiles from The National Security Agency's past 40 years
PREFACE

(U) On July 17, 1984, Lieutenant General Lincoln D. Faurer, the Director of the National Security Agency, asked the National Cryptologic School to produce a "popular history" of the Agency aimed principally at new employees who perhaps were unaware of the past accomplishments of NSA. As the project evolved, the National Cryptologic School envisioned an informal collection of significant experiences from the Agency's past which stressed NSA accomplishments as the best way to make new employees aware of the unique history of NSA and United States SIGINT and COMSEC efforts. At the same time the History and Publications Division was asked to compile a more formal one-volume study of NSA, stressing its organization, structure, mission and evolution. The two products, one produced by the School and the other by the History Office are complementary but separate. This is the National Cryptologic School's contribution. The History Office study is to be published separately.
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Chapter One

THE END OF THE BEGINNING
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THE END OF THE BEGINNING
MAGIC and the Road to Victory

July 11, 1945. Arlington, Virginia

(U) The drilling ring of the telephone jolted Frank Rowlett out of a sound sleep. He fumbled with the instrument in the dark, switched on a lamp and grunted. It was two o'clock in the morning.

(U) Rowlett, one of America's cryptologic pioneers began his career with the Army's Signal Intelligence Service in 1930. After four and a half years of war, he had grown accustomed to calls in the dead of night.

(U) "I've got one that you've got to come and look at," said the duty officer in the Purple Room.

(U) Rowlett rubbed the sleep from his eyes. "Yes, I'll be there." It may have been the clipped tone of the duty officer's voice, or maybe it was a sense that a change was in the air. They had seen hints of new directions in Japanese communications in recent weeks. Before Rowlett put the phone back in the cradle he said, "Is this something different?"

(U) "Yes," was the duty officer's curt reply.

(U) Rowlett was already swinging his feet to the floor. The duty officer placed an identical call to Signal Security Agency head Brigadier General W. Preston Corderman. He, too, was on his way to Arlington Hall Station.

(U) When Frank Rowlett arrived at Arlington Hall, he went straight to the operations area in B Building known as the Purple Room. Purple was the nickname for the Japanese Cipher Machine, Type B, introduced in late 1936. Lieutenant Henry Graf, one of the linguists assigned to translate deciphered Japanese diplomatic messages, thrust a MAGIC decrypt at him. MAGIC was the covername used for decrypted Japanese diplomatic traffic. The Japanese diplomatic message was an "extremely urgent" cable from Tokyo's Foreign Minister Shigenori Togo to Japan's Ambassador Naotake Sato in Moscow.

Since we are secretly giving consideration to termination of the war in view of the pressing situation confronting Japan both at home and abroad, you are not to confine yourself [in talking to Molotov] to the objective of a rapprochement between Russia and Japan but are to sound out the extent to which it is possible to make use of Russia with regard to ending the war as well.

(U) The intent of the message was unmistakable. Rowlett's mind raced. The Japanese were ready to quit, and they wanted to cut a Faustian deal with the Russians that would get them out of the war. More ominous was the possibility that Russian intervention on behalf of the Japanese now could lead to Soviet domination of postwar Asia.

(U) The message and its implications were to have a staggering impact on the speed and direction of American prosecution of the war in the Pacific, the decision to drop two atomic bombs and the conduct of United States foreign policy toward the Soviet Union for as far into the future as anyone could see.

(U) The war in Europe had been over for nearly nine weeks, since the Germans signed the surrender documents at a farmhouse in Reims, France, on May 7. The Allies were now intent upon ending the war in the Far East although they fully expected the cost in lives to be high. The effort was to begin on November 1 with the invasion of Kyushu, Japan's great southern island, in what the Joint Chiefs of Staff called Operation OLYMPIC. They feared casualties could even go as high as a million men.

(U) The B-29 bombing offensive against the Japanese home islands was taking an awesome toll, as was the ever-tightening naval blockade. The Allies had some evidence of a sense of despair in Japan. Some believed it started with the man in the street and reached upward all the way to the emperor. But no one contended
that the despair was universal. The war party, still strongly entrenched, was determined to carry on the fight until the last general had committed hara-kiri on the summit of Mount Fujiyama.

(U) But the MAGIC decrypt Rowlett received on July 11 was a new straw in the wind.

(U) It caused the United States to review the bidding, to take a close look at what was going on between Tokyo and Moscow. As it had throughout the war in the Pacific, MAGIC was to play a central role in Washington’s assessment of Japanese peace feelers toward the Soviet Union.

(U) As early as April 5, two days before the Nazi surrender in Europe, the Soviet Union had notified the Japanese that the 1941 non-aggression pact between their two countries would not be renewed when it expired in 1946. MAGIC intercepts had revealed Japan’s frantic but vain efforts to get Moscow to renew the treaty.

(U) MAGIC material decrypted at Arlington Hall and passed on to G2 at the Pentagon turned up indications of Japanese fears of what might lie ahead. MAGIC also told Washington about events unfolding in the Soviet Far East. Bits and pieces of COMINT were pulled together to form an intelligence mosaic.

(U) A Lieutenant Colonel Hamada, former intelligence officer with the Kwantung Army posted to the office of the Military Attache in Moscow, cabled Tokyo: “Assuming that the Russians do intend to attack Manchukuo they will probably gain a quick victory by using overwhelming force, at least double the strength of ours.”

(U) On May 26 the Japanese Military Attache in Moscow warned that the Soviet Union might “enter the war against Japan at the same time as the United States launches its all-out attack on the Japanese mainland....

(U) On June 1 a Japanese courier arriving in Moscow after a cross-continent trek made an ominous report to Ambassador Sato. The Red Army was continuing mass shipments to the Far East. From May 26 through 29 the courier reported seeing some 200 “transport trains” carrying tanks, guns, aircraft and trucks moving eastward. Sato sent the report to Tokyo by radio on June 4; it was plucked from the ether by the Signal Security Agency and decrypted.

(U) Reports from the Japanese consulate in Manchukuo and the observations of another courier who traveled the Trans-Siberian Railroad caused Ambassador Sato to report that “by July or August Russia would have completed her military preparations in the Far East.” Sato’s situation reports from Moscow, duly intercepted and decrypted at Arlington Hall Station, continued their pessimistic tone. On June 8 he warned Tokyo that if the Russians attacked “we would have no choice but to reach a decision quietly and, resolving to eat dirt and put up with all sacrifices, fly into her arms in order to save our national structure.”

(U) By the time Frank Rowlett read the message from Tokyo in the small hours of the morning on July 11, he knew the end for Japan was rapidly approaching.

(U) The drama intensified the following day when another message from Togo came in.

His Majesty is deeply reluctant to have any further blood lost among people on both sides and it is his desire, for the welfare of humanity, to restore peace with all possible speed.... It is his private intention to send Prince Konoye to your place as Special Envoy and have him take with him a letter from the Emperor containing the above statements. Please inform Molotov of this and get the consent of the Russians to having the party enter the country.

(U) Sato did his best to carry out his instructions, but to no avail. Perhaps it was just a matter of bad timing. The Allied leaders were preparing to gather at Potsdam in a few days. Whatever the real reason, the Russians put Sato off. Soviet Foreign Minister Vyacheslav Mikhailovich Molotov and his deputy, Lozovskij, blocked, brushed aside and otherwise frustrated the Japanese ambassador’s attempts to get an answer from the Soviets, and Stalin left for Berlin.

(U) Meanwhile, Guam-based B-29 Superfortresses were bombing the Japanese home islands at will, virtually without opposition. Japan could no longer defend herself against air attacks, a factor that would enter into another decision, one that would take mankind across the threshold into the Nuclear Age.
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(U) Half a world away, on the afternoon of July 16, as President Harry Truman finished a tour of Berlin and returned to his quarters at Babelsberg, Secretary of War Henry L. Stimson handed him the following cable:

TOP SECRET
URGENT
WAR 32887
FOR COLONEL KYLES EYES ONLY
FROM HARRISON FOR MR. STIMSON
OPERATED ON THIS MORNING. DIAGNOSIS NOT YET COMPLETE BUT
RESULTS SEEM SATISFACTORY AND ALREADY EXCEED EXPECTATIONS.
LOCAL PRESS RELEASE NECESSARY AS INTEREST EXTENDS GREAT
DISTANCE. DR. GROVES PLEASED. HE RETURNS TOMORROW. I WILL
KEEP YOU POSTED.

(U) To most of the world the message would have meant nothing, but Truman knew instantly from the
cryptic wording that an atomic bomb had been successfully tested at a remote site in the New Mexico desert.

(U) The press release to which the cable referred was issued by the commanding officer of the Alamogordo Army Air Base to forestall questions about the explosion from residents of New Mexico and the surrounding area.

Several inquiries had been received concerning a heavy explosion which occurred on the
Alamogordo Air Base reservation this morning.
A remotely located ammunition magazine containing a considerable amount of high explosives and pyrotechnics exploded. . . .
Weather conditions affecting the content of gas shells exploded by the blast may make it
desirable for the Army to evacuate temporarily a few civilians from their homes.

(U) Within hours, the 9950-ton heavy cruiser Indianapolis, flagship of the Fifth Fleet, was steaming under the Golden Gate Bridge and out into the Pacific, the San Francisco skyline visible over her fantail. On the bridge, Captain Charles B. McVay 3d ordered a course set for Guam. The Indianapolis' cargo: materials essential to an atomic bomb.

(U) It was July 17 in Moscow when Foreign Minister Togo's latest appeal reached his ambassador in
Moscow. Soviet Premier Josef Stalin had already left the Kremlin, on his way to Potsdam to meet with Truman and Churchill. The MAGIC decrypt pointed out that Allied insistence on Japan's unconditional surrender was a sticking point.

If today America and England were to recognize Japan's honor and existence, they would put an end to the war and save humanity from participation in the war, but if they insist unrelentingly upon unconditional surrender, Japan is unanimous in its resolve to wage thoroughgoing war. The Emperor himself has deigned to express his determination. Hence we have made this request of the Russians, but we are not seeking their mediation for anything like an unconditional surrender.

(U) By the time the Potsdam conference began at Cecilienhof Palace in July 1945, the seeds of mistrust that would ultimately evolve into the Cold War and superpower competition on a global scale were already sown.

(U) On the night of July 17, the opening day of the conference, Stalin told Churchill about the peace feeler from Japan.

(U) The next day over lunch Churchill explained to Truman what Stalin had told him about the message.
"It stated that Japan could not accept 'unconditional surrender,' but might be prepared to compromise on other terms."
(U) Thanks to MAGIC, Truman, of course, already knew what the message said.

(U) Time was now a critical factor. The United States and the Soviet Union had entered a race for the Far East. The American president had no desire to see the Soviets become involved in finishing off Japan. He stuck to his demand. As far as Truman was concerned, any compromise on the issue of unconditional surrender was out of the question.

(U) Shortly after 3:00 on the afternoon of July 18, Truman paid a courtesy visit to Stalin, and, while they were standing on the balcony of Stalin’s house overlooking Lake Griebnitz, the Soviet Premier said, “I must tell you the news,” and handed Truman a copy of the Japanese message. The president pretended to read it for the first time.

(U) After a brief discussion, Stalin and Truman agreed that a general, unspecific reply to the Japanese might be the best course of action, saying the exact purpose of the Konoye mission was unclear. The vague response suited both their needs.

(U) Stalin had made the Allies a firm promise to enter the war against Japan about three months after Germany’s capitulation. The Soviet leader still needed time to deploy his forces in the Far East, and Truman needed time to get the bomb to the 509th Airborne Group on Tinian.

(U) As the heat of summer descended on the war-ravaged suburbs of Berlin, the pace of the Soviet-American race for the Far East intensified. Washington and London had to know the precise state of play between Japan and the USSR. For this, they would rely heavily on MAGIC.

(U) Because the Potsdam conference was in recess during the British general elections, the Japanese foreign minister took advantage of the moment to cable Ambassador Sato in Moscow, instructing him to go anywhere and do whatever was necessary in order to meet with Molotov and get the Soviets to understand the “sincerity of our desire to end the war.”

(U) This July 25 message, intercepted and decrypted and sent up the line to Secretary of State Byrnes and President Truman, again stated that the Japanese could not possibly accept unconditional surrender. Still, the tone of the cable was plaintive: “Also it is necessary to have them understand that we are trying to end hostilities by asking for very reasonable terms in order to secure and maintain our nation’s existence and honor.”

(U) As the Japanese saw things, retention of the emperor was synonymous with national “existence and honor.” They realized that retention of the emperor had no practical, political significance. Nevertheless, they insisted on pleading their case to the end: “Should United States and Great Britain remain insistent on formality,” the cable to Sato said, “there is no solution to this situation other than for us to hold out until complete collapse because of this one point alone.”

(U) To many, it seemed extraordinary, even bizarre, that the Japanese would be prepared to sacrifice so much to save so little. Yet, the Japanese saw significance in the fact that the Russians had not declared war against them.

(U) In Tokyo’s eyes the Soviet Union was technically a neutral power which might still intercede on Japan’s behalf to modify the unconditional surrender formula. As long as Russian mediation remained even a remote possibility, the Tokyo government wanted to try to rescue some symbol of its “existence and honor.”

(U) Japan’s dutiful envoy in the Soviet capital kept trying. Shortly after the dinner hour on July 25, Ambassador Sato called on Deputy Foreign Minister Solomon Abramovich Lozovskij in Moscow.

(U) Lozovskij asked if Sato wanted the Russians to mediate. When Sato replied that he did, Lozovskij wanted to know whether Prince Konoye’s proposed mission to Moscow would cover only matters relating to the end of the war or whether it would also deal with Russo-Japanese relations.

(U) Sato responded according to his cabled instructions from Japan: “We are fully prepared to recognize the wishes of the Soviet Union in the Far East.”

(U) The Russians, of course, were in no hurry to help the Japanese. Their troops in the Far East were not yet in position to strike.

(U) Lozovskij stalled for time. He encouraged Sato to believe Moscow might help, saying that if Sato would put his suggestions down on paper, Lozovskij would see that he received an answer.

(U) Although Sato had no way of knowing, events had already moved too far for him to affect the outcome. The Allied leaders had set the terms for the surrender of Japan.
The Potsdam Proclamation was handed to the press in Berlin at 7:00 p.m. on July 26 for release at 9:30 p.m. Berlin time.

We, the President of the United States, the President of the National Government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agree that Japan shall be given an opportunity to end this war.

The prodigious land, sea and air forces of the United States, the British Empire and of China, many times reinforced by their armies and air fleets from the west are poised to strike the final blows upon Japan. This military power is sustained and inspired by the determination of all the Allied nations to prosecute the war against Japan until she ceases to resist.

The time has come for Japan to decide whether she will continue to be controlled by those self-willed militaristic advisers whose unintelligent calculations have brought the Empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.

The Japanese military forces, after being completely disarmed, shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

We do not intend that the Japanese shall be enslaved as a race or destroyed as nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners. The Japanese government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people.

We call upon the Government of Japan to proclaim now the unconditional surrender of all the Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

At 6:00 Tokyo time on the morning of July 27, Japanese radios began picking up the transmission of the Potsdam Proclamation. The Tokyo government spent the entire day discussing its meaning. As their deliberations progressed, serious rifts within the cabinet became increasingly apparent.

Foreign Minister Togo felt the proclamation was “evidently not a dictate of unconditional surrender,” advising the Emperor to treat the ultimatum “with the utmost circumspection.”

Admiral Soemu Toyoda—one of the very people the Allies had in mind when they spoke of self-willed, unintelligent militarists—argued that the government should say they “regarded the declaration as absurd and would not consider it.”

Those who viewed the proclamation favorably pointed out that the Soviet government had not signed the document and was therefore still neutral and might negotiate on behalf of the Japanese. They also argued that the phrase “unconditional surrender” occurred in the proclamation only in reference to the Japanese armed forces.

Prime Minister Suzuki agreed with Togo that the proclamation called for a response of the “utmost circumspection.” The problem then was how to respond and to whom. The proclamation had not been sent through any diplomatic channel or through a neutral country. It had been released to the newspapers and the radio.

For the moment, the opposing factions within the Supreme War Council elected to compromise, releasing an edited version of the proclamation to Japanese newspapers without comment from the government, neither criticizing nor rejecting the ultimatum. But signs of behind-the-scenes treachery quickly surfaced.

The Mainichi, a major Tokyo daily, headlined its story: “Laughable Matter,” and the Asahi Shimbun editorialized “Since the joint declaration is a thing of no great moment, it will merely serve to re-enhance the government’s resolve to carry the war forward unfalteringly to a successful conclusion!”

Convinced that the hawks in the military had gotten to the newspaper editors and distorted the government’s reaction, Togo was outraged.

As leaflets threatening the Japanese with horrible destruction fluttered down from American planes in the skies over Tokyo, Togo confronted the military leaders. The officers retorted by demanding that the prime minister reject the proclamation.
The outcome was another compromise. Prime Minister Suzuki would not reject the ultimatum, but he would play down its importance in an effort to buy time until they heard from the Russians.

The problems created by internal squabbling were further exacerbated the following day. Since the newspapers had failed to accurately convey Suzuki's message, he called his own press conference and declared, "The Potsdam Proclamation, in my opinion, is just a rehash of the Cairo Declaration, and the government therefore does not consider it of great importance. We must mokusatsu it."

Some versions of the story maintain Suzuki added that Japan would "resolutely fight for the successful conclusion of this war," but according to another version, he never uttered any such vain boast.

Regardless of what Suzuki did or didn't say, Allied reading of Japan's response seemed to hinge on the interpretation of the word mokusatsu, which literally means "to kill with silence."

The Federal Communications Commission's Foreign Broadcast Intelligence Service translated it as "ignore." Suzuki later reportedly told his son that he had intended to convey the equivalent of the English expression "No comment."

The headline in The New York Times reflected the sense in which American leaders chose to take the response: "Japan Officially Turns Down Allied Surrender Ultimatum."

Meanwhile, MAGIC decrypts continued to keep Washington informed of events as they were reflected in Japanese diplomatic cable traffic. For example, this August 1 message from Japan to Ambassador Sato in Moscow was revealing for what it said about how desperate the situation was in the eyes of the Foreign minister in Tokyo.

The battle situation has become acute. There are only a few days left in which to make arrangements to end the war . . . . Efforts will be made to gather opinions from the various quarters regarding definite terms. (For this it is our intention to make the Potsdam Three-Power Proclamation the basis of the study regarding these terms.) . . . It is requested that further efforts be exerted to somehow make the Soviet Union enthusiastic over the special envoy . . . .

Since the loss of one day relative to this present matter may result in a thousand years of regret, it is requested that you immediately have a talk with Molotov.

The hour was already late. The Japanese had tarried too long. Momentum in the race for postwar hegemony in the Far East was about to swing dramatically to the United States.

On August 6 a B-29 Superfortress nicknamed "Enola Gay" swung away from the Japanese city of Hiroshima at full throttle. The crew felt two hard "slaps," like close anti-aircraft bursts as the heart of Hiroshima disappeared. Describing the scene the pilot reported "a great black cloud of boiling dust and churning debris . . . smoke climbed like a mushroom to 20,000 feet. A few fires were visible around the edges of the smoke but we could see nothing of the city except the dock area, where buildings were falling down." Sixty percent of Hiroshima's 375,000 people had just been annihilated.

On August 8, Soviet Foreign Minister Vyacheslav M. Molotov at last received the Japanese ambassador. Sato's meeting in the Kremlin began at 5:00 p.m. and was a far cry from anything he or the foreign ministry in Tokyo had hoped for.

Cutting off the Japanese envoy's opening salutation, Molotov said, "I have here, in the name of the Soviet Union, a notification to the Japanese government which I wish to communicate to you."

Both men sat, Molotov at one end of a long table, Sato at the other, while the Soviet foreign minister read from a long document that ended with: "the Soviet government declares that from tomorrow, that is from August 9, the Soviet Union will consider herself in a state of war against Japan."

A little over an hour later, Soviet Far Eastern armies numbering more than a million men were on the move, striking on at least five sectors along the 2,000-mile arc of the Manchurian border.

The next day, at 11:00 a.m. Tokyo time, Prime Minister Suzuki addressed the Supreme War Council: "Under the present circumstances, I have concluded that our only alternative is to accept the Potsdam Proclamation and terminate the war. I would like to hear your opinions on this."

Before anyone around that table had a chance to speak, more devastation came hurtling through the August sky above Nagasaki.

At 11:01 a B-29 Superfortress nicknamed "Bock's Car" released a second atomic bomb, erasing the Mitsubishi Steel and Arms Works and making casualties of one-third of Nagasaki's population of 250,000.
At the point where the Urakami river empties into Nagasaki harbor, the area of destruction was eight-tenths of a mile long and half a mile wide.

(U) The Allies kept up military pressure on Thursday and Friday as American and British carrier task forces destroyed or damaged 711 planes at fields on northern Honshu and sank or damaged 94 Japanese ships.

(U) After a meeting that began Thursday and lasted until dawn on Friday, August 10, the Japanese, in a unanimous vote by the full cabinet, decided to sue for peace.

(U) Soviet ambassador Jacob Malik called on Foreign Minister Shigenori Togo at 11:00 a.m. to deliver the Soviet government’s formal communication declaring war.

(U) The leaders around the emperor, deeply concerned about the old concept of “imperial rule,” agreed to accept the terms of the Potsdam Proclamation, with the understanding that it did not prejudice the emperor’s position as a “sovereign ruler.”

(U) The end was near. Yet amazing as it may seem, even in the wake of these catastrophic events, some elements of the Japanese military remained unmoved to give up the fight.

(U) However, an Imperial Conference was called and the emperor, breaking the deadlock, made the decision to surrender.

(U) The world waited, and listened.

(U) The clock was running. A full-scale Soviet offensive was moving to crush Japanese resistance in Manchuria and win a place in the postwar division of Asia.

(U) Troops of the Soviet First Far Eastern Front advanced up the Suihua-Harbin railway toward the large rail junction at Mutankiang. At the same time, the Soviet Second Far Eastern Front moved along both banks of the Sungari river. Second Far Eastern Front forces also broke through the Japanese frontier defense zone on Sakhalin island, advancing southward more than 15 kilometers. The Transbaikal Front’s offensive, east of the Great Hingan chain, took the towns of Linsi, Tapanshang, Lupeh, Chanyu, Tuchuan and Gegenmio. The Far Eastern Navy captured the Korean port of Seishin.

(U) At 3:45 a.m. on August 10, an FCC monitoring station in San Francisco picked up a message from Radio Tokyo in clipped, accented English: “in conformity with the august wish of His Majesty to restore the general peace” the Japanese Government had decided to “accept the terms” laid down at the Potsdam Conference, but with the understanding that the step would not prejudice “the prerogatives of His Majesty as a sovereign ruler.”

(U) The United States government would have to wait for the official Japanese surrender offer, which at that moment was on its way to Washington.

(U) The race was now to the swift.

(U) As the Japanese message moved from Tokyo to Berne, analysts at Arlington Hall Station intercepted and decrypted it.

(U) In Berne, the message was enciphered in a Swiss diplomatic system and transmitted through New York on the RCA radio link to the Swiss Legation in Washington.

(U) Max Grassli, Charge d’Affaires at the Swiss Legation in Washington, passed the following note to Secretary of State Byrnes:

Sir:

I have the honor to inform you that the Japanese minister to Switzerland, upon instructions received from his Government, has requested the Swiss Political Department to advise the Government of the United States of America of the following:

“In obedience to the gracious command of His Majesty the Emperor who, ever anxious to enhance the cause of world peace, desires earnestly to bring about a speedy termination of hostilities with a view to saving mankind from the calamities to be imposed upon them by further continuation of the war, the Japanese Government several weeks ago asked the Soviet Government, with which neutral relations then prevailed to render good offices in restoring peace vis-a-vis the enemy powers. Unfortunately, these efforts in the interest of peace having failed, the Japanese Government in conformity with the august wish of His Majesty to restore the general peace and desiring to put an end to the untold sufferings entailed by war as quickly as possible, have decided upon the following:
UNCLASSIFIED

"The Japanese Government are ready to accept the terms enumerated in the joint declaration which was issued at Potsdam on July 26, 1945, by the heads of the Governments of the United States, Great Britain and China, and later subscribed by the Soviet Government, with the understanding that the said declaration does not comprise any demand which prejudices the prerogatives of His Majesty as a sovereign ruler.

The Japanese Government sincerely hope that this understanding is warranted and desire keenly that an explicit indication to that effect will be speedily forthcoming."

In transmitting the above message the Japanese minister added that his Government begs the Government of the United States to forward its answer through the intermediary of Switzerland. Similar requests are being transmitted to the Governments of Great Britain and the Union of Soviet Socialist Republics through the intermediary of Sweden, as well as to the Government of China through the intermediary of Switzerland. The Chinese minister at Berne has already been informed of the foregoing through the channel of the Swiss Political Department.

Please be assured that I am at your disposal at any time to accept for and forward to my Government the reply of the Government of the United States.

Accept, sir, the renewed assurances of my highest consideration.

Grassli,
Charge d’Affaires ad Interim of Switzerland.

(U) The next day the Domei News Agency announced in Tokyo that the Japanese government had addressed a message to the Swiss and Swedish governments for transmission to the United States, Great Britain, China and the Soviet Union accepting the Potsdam ultimatum on the understanding that Emperor Hirohito’s sovereignty was not questioned.

(U) On August 11, Secretary of State James F. Byrnes sent this response to the Swiss:

Sir:

I have the honor to acknowledge receipt of your note of Aug. 10, and in reply to inform you that the President of the United States has directed me to send to you for transmission by your Government to the Japanese Government the following message on behalf of the Governments of the United States, the United Kingdom, the Union of Soviet Socialist Republics and China:

With regard to the Japanese Government’s message accepting the terms of the Potsdam Proclamation but containing the statement, ‘with the understanding that the said declaration does not comprise any demand which prejudices the prerogatives of His Majesty as a sovereign ruler,’ our position is as follows:

From the moment of surrender the authority of the Emperor and the Japanese Government to rule the State shall be subject to the Supreme Commander of the Allied Powers, who will take such steps as he deems proper to effectuate the surrender terms.

The Emperor will be required to authorize and insure the signature by the Government of Japan and the Japanese Imperial General Headquarters of the surrender terms necessary to carry out the provisions of the Potsdam Declaration, and shall issue his commands to all the Japanese military, naval and air authorities and to all of the forces under their control wherever located to cease active operations and to surrender their arms, and to issue such other orders as the Supreme Commander may require to give effect to the surrender terms.

Immediately upon the surrender the Japanese Government shall transport prisoners of war and civilian internees to places of safety, as directed, where they can quickly be placed on Allied transports.

The ultimate form of government of Japan shall, in accordance with the Potsdam Declaration, be established by the freely expressed will of the Japanese people.

‘‘The armed forces of the Allied powers will remain in Japan until the purposes set forth in the Potsdam Declaration are achieved.’’

Accept, sir, the renewed assurances of my highest consideration,

JAMES F. BYRNES,
Secretary of State.
Woodruff Wallner of the State Department's Swiss desk drove to the Swiss Legation in a government car and delivered the note to the Swiss Charge d'Affaires, Max Grassli, at 10:30 a.m. (U)

Swiss Legation officials then encrypted the message, and at 11:00 the cable was on its way. (U)

An RCA motorcycle messenger rushed the message to RCA's Washington office, where it was transmitted to New York. From there it was radioed "urgent" direct to Berne, Switzerland. (U)

RCA delivered the Allied reply to Japan's peace bid to the Swiss Political Department in Berne at 9:05 p.m. (4:05 p.m. Washington time). (U)

The message was deciphered and Dr. Walter Stucki, chief of the Swiss Political Department's Foreign Division, handed the Allied reply to Japanese minister to Switzerland Shumishi Kase at 9:25 p.m. After talking with Stucki for about thirty minutes, Kase left the Parliament building saying the message would be sent to Tokyo immediately. The message was actually transmitted two hours later. (U)

At 8:00 a.m. Berne time on August 12, Tokyo asked for a repeat of the entire cable containing the Allied surrender terms. At 9:35 a.m. Tokyo acknowledged receipt of the repeat. (U)

The longest day in Japanese history, August 14, 1945, began with a second Imperial Conference. (U)

Opinion over the issue of unconditional surrender split down the middle, with two chiefs of staff and the army minister opposing Navy Minister Yonai, Prime Minister Suzuki, and Foreign Minister Togo. Again the emperor, saying that "the unendurable must be endured," threw his support behind the group favoring unconditional surrender. (U)

Meanwhile, the mighty United States Third Fleet, returning to Japanese waters after a nine-day absence, commenced shelling factory cities up and down the coast of northern Honshu. (U)

For America, too, the long day of August 14, 1945, had begun. It was to be a day of waiting, a day fraught with tensions, packed with rumors, buoyed by hopes, marked by premature celebrations. The atmosphere at Arlington Hall and at the Naval Security Station on Nebraska avenue would become electrified as the MAGIC decrypts told the story the rest of the world wouldn't hear for several hours. (U)

At 1:00 a.m. Washington time, a Federal Communications Commission monitoring unit reported that a Tokyo radio station had been sending long code messages to Switzerland for more than ten solid minutes. (U)

Eleven minutes later the Domei news agency reported that the Japanese government was considering Allied surrender terms. "Immediately upon receipt of the Allied reply yesterday, Monday, the Japanese Government started deliberations upon its terms, which as a Reuter diplomatic correspondent pointed out 'created a very serious problem' for the Japanese people. The Cabinet has been in continuous session until late Monday night. It is understood the Japanese Government's reply probably will be available any time as soon as legal procedure is completed." (U)

At 1:49 a.m. Washington time, more than 63 hours after the dispatch of Byrnes' note, Domei announced that Japan had decided to accept the Allies surrender terms. (U)

Yet nothing seemed certain, even at that late stage. Tokyo had earlier declared that the Allies' reply to its surrender offer had been delivered only the morning before, but the Swiss government branded that a lie. (U)

If ever there were an appropriate time for the term "cautious optimism," it was now, with the emphasis on the word cautious. Even in those final hours, the Japanese were far from unified in their desire to quit. (U)

Domei's promise of imminent peace followed by only a few hours its broadcast of Field Marshall Prince Norimasa Nashimoto's message, held up since Saturday, urging Japanese forces ultimately to destroy completely the strong enemy." That appeal lent credence to stories that the Japanese factions were split over the surrender issue. (U)

At 7:15 a.m. Washington time Dr. Stucki telephoned Secretary of State Byrnes from Berne to say that a long coded telegram was just then reaching Switzerland from Tokyo. (U)

At 11:35 Washington time, the American minister in Berne, Leland Harrison, called Secretary Byrnes and told him that the message just received from Tokyo was not the "message for which the world is waiting." (U)

This long cable was addressed to the Japanese representatives in Switzerland, giving them official explanations and instructions concerning the events that were about to unfold.
(U) The Japanese capitulation cable—the message awaited by the whole world—reached the Japanese Legation in Berne at about 5:00 p.m. (noon in Washington).

With reference to the Japanese Government’s note of August 10 regarding their acceptance of the provisions of the Potsdam Declaration and the reply of the governments of the United States, Great Britain, the Soviet Union and China sent by American Secretary of State Byrnes under the date August 11, the Japanese Government have the honor to communicate to the governments of the Four Powers as follows:

1. His Majesty the Emperor has issued an imperial rescript regarding Japan’s acceptance of the provisions of the Potsdam Declaration.

2. His Majesty the Emperor is prepared to authorize and insure the signature by his Government and the Imperial General Headquarters of the necessary terms for carrying out the provisions of the Potsdam Declaration. His Majesty is also prepared to issue his commands to all the military, naval and air authorities of Japan and all the forces under their control, wherever located, to cease active operations, to surrender arms and to issue such other orders as may be required by the Supreme Commander of the Allied Forces for the execution of the above mentioned terms.

( U) Shortly before 2:30 p.m. Washington time, Dr. Stucki informed Max Grassli in Washington that Shumishi Kase, the Japanese minister in Berne, received Tokyo’s reply to the United States note. Stucki gave no indication of the content of the Japanese response.

(U) Grassli informed Byrnes immediately.

(U) While all this was going on, the Signal Security Agency was frantically deciphering the Japanese decision to surrender passed on Swiss diplomatic communications.

(U) The word spread like wildfire through Arlington Hall.

(U) As the news that the war was over became generally known within the Signal Security Agency some senior people, including SSA chief Corderman, considered sealing themselves off, locking the gates and shutting off the phones, for fear someone would leak the word. But such extreme measures weren’t necessary, nor were they implemented. For the next several hours, until the president went on radio at 7:00 p.m. to make the announcement, the secret was kept.

(U) An entry on the Secretary of State’s official calendar for the day shows that at 3:00 p.m. Secretary Byrnes received “authentic information from an undisclosed source that the Japanese note contained a surrender without qualification.” The “undisclosed source” was MAGIC.

(U) In Berne, Kase called on Walter Stucki at 8:00 p.m. (3:00 p.m. Washington time) to deliver his government’s official answer to the Allies’ surrender terms. Kase left the building four minutes after entering, and barely ten minutes before the arrival of Leland Harrison.

(U) Fifteen minutes later Harrison flew up the stairs to Dr. Stucki’s office where he remained closeted for an hour and ten minutes. Officials from the coding section of the Swiss Foreign Office came and went at intervals until the Swiss cable to its legation in Washington was put on the wire to New York. A Swiss communique said that Mr. Harrison received the Japanese reply at 8:25 p.m. (3:25 p.m. Washington time).

(U) At 4:05 p.m. Secretary Byrnes telephoned Harrison to confirm the content of the note and its text. Byrnes then informed President Truman.

(U) At 4:20 Byrnes left by automobile for the Pentagon for a telephone conference with the other Allied governments in which all agreed to a simultaneous release of the news in the Allied capitals at 7:00 p.m. Washington time.

(U) At 5:30 Byrnes called at the White House and advised President Truman of the arrangement.

(U) The note of total capitulation was delivered to the State Department by Max Grassli at 6:10 p.m. The State Department responded with a note to Tokyo through the same channel, ordering the immediate end of hostilities by the Japanese.
(U) At 6:15 p.m. Secretary Byrnes delivered the Japanese text to President Truman and 45 minutes later the president made the following announcement:

I have received this afternoon a message from the Japanese Government in reply to the message forwarded to that Government by the Secretary of State on August 11. I deem this reply a full acceptance of the Potsdam Declaration, which specifies the unconditional surrender of Japan.

In the reply there is no qualification.

Arrangements are now being made for the formal signing of surrender terms at the earliest possible moment.

General Douglas MacArthur has been appointed Supreme Allied Commander to receive the Japanese surrender.

Great Britain, Russia and China will be represented by high-ranking officers.

Meantime the Allied armed forces have been ordered to suspend offensive action.

The proclamation of V-J Day must wait upon the formal signing of the surrender terms by Japan.

(U) The nation's attention, focused for so long on war, would now turn to peace. And as the factories prepared to retool, so did the government, including the cryptologic system that had played an instrumental role on the road to victory.

(U) The wartime record was impressive. The Signal Security Agency's Language Branch scanned more than one million decrypted messages between the attack on Pearl Harbor and August 1945. Of those, approximately 415,000 were forwarded in the form of translations.

(U) Suddenly it was over.

(U) Many years would pass before the contributions of communications intelligence to the Second World War would enter the public domain. But in time words like ULTRA and MAGIC and PURPLE would become part of our language, and the names of Friedman, Rowlett, Kullback, Sinkov and the others would be indelibly etched in thousands of memories.

(U) In a very real sense, the period before the end of the Second World War was the beginning of American cryptology. The cessation of hostilities in August of 1945 serves as a suitable milestone to mark an end to that illustrious beginning and the start of the modern American cryptologic system.
Chapter Two

EMERGENCE OF A NATIONAL CRYPTOLOGIC AUTHORITY
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EMERGENCE OF A NATIONAL CRYPTOLOGIC AUTHORITY
The Shift from War to Peace

(U) By the time the representatives of the United States and Japan executed the instruments of surrender on the deck of the battleship Missouri on September 2, 1945, American cryptology was already undergoing a major overhaul.

(U) At the hub of the cryptologic community was picturesque, tree-shaded Arlington Hall Station. Known before the war as Arlington Hall Junior College, the former girls school at 4000 Lee Boulevard operated unprofitably for years and was in the hands of a receiver when the Army discovered it. The government acquired the attractive campus for the sum of $650,000 on June 7, 1942, complete with sweeping lawns and stately old trees, a large four-story school building, a gymnasium with a swimming pool, a riding hall, power plant, and three residences, in addition to a number of smaller buildings.

(U) Olive-drab bulldozers soon transformed the pastoral grounds into a bustling military installation, and the Signal Intelligence Service moved from the third floor of the old Munitions Building on the Mall in Washington to its new home in Arlington, Virginia.

(U) By today's standards, Arlington Hall might be considered quaint, or even primitive. Compared to the cryptologic titan of the nineteen-eighties, the effort at the close of the Second World War looked like a cottage industry. Operational elements were housed in two two-story buildings that featured long wings jutting back from the "head-house" that fronted on the road.

(U) No metal was available for filing cabinets during the war, so America's precious cryptologic secrets were stored in old wooden cabinets, and the post carpentry shop fixed up lengths of pipe that were secured at the tops and bottoms of the cabinets, blocking the drawers from opening.

(U) Yet despite its shortcomings, the Arlington Hall of 1945 had a special charm and character, perhaps because those who served there during those long war years knew they had been witnesses to extraordinary events.

(U) The Navy's COMINT effort, OP-20-G, also found a new home during the war. In 1943, OP-20-G vacated its cramped space in the old Navy Department building on Constitution avenue, an archaic structure dating back to 1918, and moved into another former girls school, ivy-clad Adelia Gates Henley School for Girls, on Nebraska avenue.

(U) COMINT really had only one customer back then. Translations of decrypted messages went straight to Colonel Carter W. Clarke's Special Branch of the Military Intelligence Service at the Pentagon, a group composed largely of civilians and responsible directly to the Chief of Staff of the Army, General George C. Marshall, and ultimately to Secretary of War Henry L. Stimson.

(U) Now, with the signing of the surrender in Tokyo Bay, someone would have to decide what to do with it all.

(U) The flow of incoming traffic fell off dramatically with the end of the fighting. Overnight, the targets that occupied most of the wartime cryptologic resources—Germany and Japan—had become cryptologic nonentities.

(U) One by one the radio receivers that had been faithfully tuned to enemy signals were switched off. Antenna fields were dismantled, equipment mothballed as station after station around the world ceased monitoring the airwaves, turned off the lights and padlocked the doors.

(U) Gone were the Army intercept stations at Miami, Florida; at New Delhi, India; at OSS Operations in Bellmore, New York; at Tarzana, California; and at Accra on the African Gold Coast. Silent were the Radio Intelligence Companies supporting General MacArthur in the Southwest Pacific and the Signal Service Companies in Europe.
The Beginnings of the Soviet Problem

American suspicions over Soviet aims and motives, latent through much of the Second World War, sprang into the open at Potsdam in July and August of 1945. MAGIC Diplomatic Summaries from the Special Branch of the Military Intelligence Service had been keeping President Truman and Prime Minister Churchill abreast of the Japanese overtures to the Soviet Union from the middle of July onward. The Soviets apparently didn't know the Americans were reading the Japanese diplomatic communications. Had they known, Stalin surely would have been more straightforward with both Truman and Churchill at Potsdam. The decrypts told quite a different story from the one Soviet Premier Josef Stalin was furnishing the American and British leaders. As the seeds of mistrust germinated, the need for accurate information about Soviet intentions escalated. Consequently, MAGIC took on an unexpected dimension during the final tense months of the war, providing incisive clues to Soviet Far Eastern policies.
Then, without warning, at the end of October 1948 the bubble burst. The story of the Soviet communications change of 1948 is covered in detail in Chapter Three.

In addition to manual Morse, the Soviets were using a good deal of among others.

The Soviet plaintext problem was a SIGINT success story from the beginning, from the design of electro-mechanical processing equipment that could handle each new Soviet development to the painstaking analysis of the intercepted communications. A joint American-British effort against these communications in the nineteen-forties led to high intercept volume and new engineering challenges in the face of proliferating Soviet techniques.

At one time the United States and Britain together were processing as many as two million plaintext messages a month, messages containing everything from money orders to birthday greetings. The production task was awesome, with analysts manually leafing through mountains of page copy, meticulously screening millions of messages. The investment paid off, leading to an encyclopedic knowledge of what was going on in the Soviet Union. Over 95 percent of what the United States knew about Soviet weaponry in the nineteen-forties came from analysis of plaintext radioprinter traffic. Almost everything American policy makers learned about the Soviet nuclear energy and nuclear weapons programs came from radioprinter traffic, the result of fitting together thousands of tiny, selected pieces of the jig-saw puzzle.

The Soviets eventually realized how much information they were giving away.

Shortly before V-J Day, SSA also mounted a small, partially successful effort against Soviet diplomatic communications. These were sensitive undertakings at the time, because the Soviet Union was then a wartime ally.

About a year after the war ended, with both intercepted traffic and captured material arriving at Arlington Hall, SSA began developing an exploitation capability against some Soviet low-grade military communications. At about the same time, OP-20-G was starting to concentrate on Soviet naval targets and broadcasts.

Commander John M. Leitwiler, later Chief of ALLO at NSA, was the officer-in-charge of the U.S. Naval Communications Supplementary Radio Activity at Port Blakey, Bainbridge Island, Washington. For a while, his Sup Rad intercept operators copied Soviet Far Eastern military Morse circuits on old Underwood mills, some of which still had Japanese Kata Kana keyboards. Those modified Underwood typewriters, nicknamed "Orange," were gradually converted so they would type Cyrillic letters in lower case and Roman in upper, and rechristened "Bourbon," a term that came to be applied to Russian intercept in general.

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In the immediate postwar period one of the most vexing problems for Frank Rowlett and the others who had taken American cryptology to its heady summit was how to retain enough key people to keep the effort going. Skilled cryptanalysts were anxious to shed their uniforms and get on with civilian careers. And in some quarters naive voices even continued to counsel that there was no longer a need "to read other
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gentlemen's mail." But those who saw international tensions building knew full well that the United States could never return to pre-Pearl Harbor days of innocence.

(U) The world had changed in ways so profound that America could never again isolate itself from the world community. National interests and geopolitical pressures would no longer permit the nation to adhere to George Washington's admonition about avoiding entangling alliances. The country, whether by accident or by choice, had been thrust into a role of international leadership. Given that new position, it was axiomatic that the United States could never again be without a professional cryptologic effort.

(U) As the voices of the naysayers faded into the background, the question of what shape the national cryptologic effort should take was attracting more and more attention. As early as 1945, the service cryptologic agencies were considering prospects for closer cooperation, even the possibility of a merger. But legitimate interests and parochial concerns raised prickly obstacles.

(U) Rowlett and others at Arlington Hall who favored a consolidated effort relied heavily on tentative wartime agreements between Army Chief of Staff George C. Marshall and Chief of Naval Operations Ernest J. King to consider unification. But a tentative agreement to explore consolidation and active support for a merger were two different things. Moreover, the idea of a consolidated cryptologic service found little appeal below the chief-of-staff level. Consensus was elusive, agreement hard to come by.

(U) Congressional action creating a Department of Defense and three military services brought things to a head. On one hand were pressures for budget restraints and manpower reductions, while on the other hand was the prospect of a third cryptologic branch when the Air Force was separated from the Army.

(U) Kenneth Royall, America's last Secretary of War and first Secretary of the Army, found the prospect of a third cryptologic branch distressing. To the soft-spoken North Carolinian, the idea of having so many cryptologic units seemed unnecessarily expensive and represented a duplication of effort that ran contrary to the principles the president had directed him to follow. Royall bucked the problem up the line to Secretary of Defense James Forrestal. In August of 1948 Forrestal created a board of military officers to study the issues and recommend a solution.

(U) The Army was represented by Major General Alexander R. Bolling, Assistant Chief of Staff (G-2), and Army Security Agency chief Colonel Harold G. Hayes. The Navy members were Rear Admiral Earl E. Stone, Director of Naval Communications, and Captain W. S. Veeder from the Office of Naval Intelligence. The Air Force was represented by Major General C. Perry Cabell, Director of Intelligence (A-2), and Brigadier General F. L. Ankenbrandt, Director of Communications. After electing the senior naval officer chairman at its first meeting, the Stone Board promptly polarized itself.

(U) At one pole was the Army, strongly in favor of a unified armed forces cryptologic agency. At the other pole, the Navy and the Air Force argued for cooperation without total unification. The Army cited the confusion and parochialism of the hydra-headed German wartime COMINT effort, contrasting the enemy's problems with the coordination achieved by the British through GCHQ. The other services countered with the argument that COMINT had proven so vital to military operations that the cryptologic establishment of the future must be responsive to individual service requirements, meaning each service should have its own COMINT support element. The Stone Board ended up with two reports, a majority report containing the Navy-Air Force proposal and an accompanying minority one presenting the Army's view favoring unification. The split report went up to the Secretary of Defense in early 1949. Not a man who liked split reports, Forrestal put this one in his office safe, and left it there.

(U) Forrestal, under increasing attack for failing to halt the new Air Force's ambitious demands for increased combat strength and larger appropriations, and criticized for his strong pro-Arab, anti-Israel views, resigned in March of 1949. The Stone Board's report stayed locked away in Forrestal's safe in the E Ring of the Pentagon.

(U) When Louis Johnson became Secretary of Defense, he turned Forrestal's files over to General Joseph MacNarney, then chief of the Department of Defense Management Committee. MacNarney, former commanding general of United States forces in Europe and military governor of Germany, read the Stone Board's report and immediately seized on the Army's point that one unified cryptologic agency would be more efficient and economical than three separate ones. When MacNarney showed the report to Johnson, the Defense Secretary said, "That's just what Truman has been telling us to do. Let's go up and see him about this thing."

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When Johnson and MacNarney explained the issue to the president, Truman said, "What do you think, boys, what should we do?"

President Truman said, "So be it. Go back and fix up the orders."

Even though Johnson and MacNarney were armed with a presidential decision, they had a difficult task ahead of them. Trying to persuade the Navy and the Air Force to go along with the Army's minority position without precipitating a major battle was at best a formidable challenge.

MacNarney began by calling his old friend General Bolling and saying, "Alex, come on up. I've got something to talk to you about."

When the Army intelligence chief walked into MacNarney's office, he discovered that MacNarney wanted him to draft a JCS paper consolidating the three service cryptologic branches. At that point, neither of them even knew what to call it. MacNarney's only guidance to Bolling was, "Look, draw up this order and keep it very quiet and give it to me."

As soon as Bolling had the order drawn up, he took it back to MacNarney. The two of them were about to go into Louis Johnson with JCS 2010 when MacNarney had second thoughts. Before Louis Johnson signed the directive, MacNarney wanted to at least tell the Navy and the Air Force what he was doing.

Then the screaming started. A parade of senior Navy and Air Force officers tried their best to persuade MacNarney to change the directive. The Army remained very quiet, although they were concerned over how the philosophical differences among the services might ultimately be resolved. In the end MacNarney gave them two or three days to study the paper and bring in their objections.

They came back with the same arguments they had presented during the original Stone Board meetings. MacNarney said, "Well, I'll study this and let you know shortly."

About that time, Army Security Agency head General Carter Clarke and Frank Rowlett went to the Pentagon to see General Alfred Gruenther, Secretary of the Joint Chiefs of Staff and Clarke's good friend.

Gruenther looked at the ASA chief and said, "Carter, what are you doing to Perry Cabell and Earl Stone?"

Clarke replied, "I'm not doing anything. Why?"

Gruenther leaned forward, forearms resting on the glass top of his desk and said, "Well, they were in here screaming to high heaven about this order consolidating this cryptologic business. They said they had been up to see MacNarney and Johnson and were down here trying to get me on their side, and you know what I told them?"

Clarke never uttered a word. Rowlett held his breath.

Gruenther leaned back in his swivel chair and put his feet up on the desk. In his high-pitched voice he said, "I told them they were phoning from the jailhouse."

In May, Secretary Johnson, overturning the Stone Board's majority report, directed the creation of the Armed Forces Security Agency along the lines laid out by the Army.

On May 18 Air Force Chief of Staff General Hoyt Vandenberg announced that the Air Force had changed its position and now supported the Army's plan for consolidation. With that, the Navy's hope of reversing Johnson's decision was dead.

On May 20, 1949, Secretary Johnson signed JCS Directive 2010, ordering the establishment of the Armed Forces Security Agency and naming Admiral Stone the first director. AFSA was to be headed by a flag or general officer who would serve a two-year term, and the directorship would be rotated through each of the services.

It was during this period that the concept of a three-sided cryptologic structure began to emerge. As Frank Rowlett saw things, the protection of American secrets through COMSEC was more important than the exploitation of other countries' secrets through COMINT. Under that philosophy, AFSA's first priority would be the security of American communications. COMINT, while interesting from an intelligence viewpoint, was important to a large degree because it could give the United States a better understanding of weaknesses in its own cryptographic systems, knowledge which could be folded over into improving U.S. systems.

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(U) Rowlett and the others realized, of course, that they would need an equal effort for the exploitation of intercepted messages and the production of intelligence, and that job would go to the intelligence branch at Arlington Hall Station. That gave them two sides: COMSEC and COMINT.

(U) Finally came the need to develop new techniques and equipment, especially computers. Investigations into computer applications had taken a back seat during the war, but it was an area that would now be fully explored.

(U) They looked to the research and development component for the creation of high speed devices, better means of intercept, and whatever else was needed to support both the COMSEC and COMINT efforts. Wartime experience had taught them that people involved in the day-to-day production of COMSEC materials were so preoccupied that they didn't have time to learn about new cryptanalytic techniques. Similarly, people dealing with the day-to-day production of intelligence would let slide the marrying of the COMSEC/COMINT interests so necessary to the development of new and improved cryptographic systems. A single research and development organization working for both efforts would be a better administrative arrangement than two separate research and development organizations, one in support of COMSEC and one in support of COMINT. The centralized research and development function was seen as a place where COMSEC and COMINT would be joined.

(U) It was here, in these very early years, that the structure of the National Security Agency began to emerge.
Chapter Three

Treachery and Triumph
CHAPTER THREE
TREACHERY AND TRIUMPH
Black Friday

The massive Soviet communications change of October 29, 1948, struck with the force and suddenness of an Oklahoma tornado, ravaging the cryptologic landscape and leaving behind in its path an intelligence information gap that would take years to close. Surprise was total. Arlington Hall was still reeling from the shock as the cryptanalysts stared disbelievingly at the huge COMINT target that had literally gone unreadable in one tick of the clock.

The events leading up to the day that became known in American cryptologic circles as Black Friday had their roots in an episode that occurred more than three years before in Canada. On September 5, 1945, three days after the formal surrender that ended World War II, Igor Serveievitch Gouzenko of the Red Army's GRU intelligence directorate and the senior cryptographic officer in the Soviet embassy in Ottawa, presented himself and two shopping bags full of documents to the Royal Canadian Mounted Police and defected.

In the first week of October 1945 Moscow sent out warnings to several intelligence posts, alerting them to the Gouzenko defection and, at the same time, tipping off American, Canadian and British authorities to the existence of undetected Russian illegal agents in the United States and Canada. However, since the United States was unable to read the Soviet intelligence service's traffic at the time, no further action could be taken to identify and neutralize the agents. Nevertheless, the Gouzenko affair did give rise to another idea— one that would backfire.

The Gouzenko defection offered a plausible cover, some people reasoned, for the release of sensitive COMINT without disclosing our ability to exploit the Soviet cryptographic systems. Since the Soviets didn't know precisely what Gouzenko had taken out of the Ottawa embassy when he defected, the United States and Britain could presumably issue a certain amount of decrypted Soviet traffic and give attribution to Gouzenko rather than cryptanalysis. In their enthusiasm, they failed to consider the possibility that a penetration agent inside the Western intelligence structure would be able to tell the Soviets just where this new flow of decrypted radio traffic was coming from. The information would, of course, tell the Soviets just how vulnerable their cryptographic systems really were.

Since the nineteen-thirties, the Soviets had made a practice of borrowing cryptographic ideas and machines, in some cases using materials they had captured from the Germans during the Second World War. By 1948 a source inside Arlington Hall with broad knowledge of the Soviet problem had given the Soviet Union a clear indication of which cipher systems the United States was actually reading.

As soon as the Soviets learned how exposed they were, they acted with dispatch. Unbeknown to the United States, the Soviets quietly began a research program aimed at improving their communications security. The effort was headquartered at the Marfino laboratory outside Moscow. In addition to being a COMSEC facility, Marfino was also a prison. Staffed mainly by German and Soviet scientists incarcerated for minor offenses, Marfino counted among its more celebrated inmates Alexander Solzhenitsyn, who described the facility in general terms in his book First Circle. In the fall of 1948 the results of the Soviets' work at Marfino came crashing down like a tidal wave on the beach of Anglo-American cryptology.

To the men and women working the Soviet problem at Arlington Hall that autumn, October 28 was just like any other day. Soviet communications were a piece of cake. Analysts had maintained continuity on Russian targets with ease for years. Intercept operators relied on Russian links to come up at the same time on the same known frequencies, day in and day out. Callsigns were actually a rarity on many Soviet military
AFSA Unmasks a Traitor

TOP SECRET UMBRA

multichannel nets. Links were generally identifiable by frequency. In some cases stations were identified on the basis of operators' and technicians' names. Many of the Russian communicators were women who used their names freely and chatted about their personal lives on the circuits.

(SC) That age of cryptologic innocence ended abruptly on October 29, 1948—Black Friday—when the Soviets executed one of the best planned communications changes ever seen. Aside from two small outposts in the Far East that didn't switch until the following Monday, every Soviet station around the world made the changeover precisely at the start of the new radio day.

(S-CCO) Moscow had planned with great precision and attention to detail. The choice of a Friday was in itself an indication of the forethought and care with which the Soviets approached the changeover. Had Russian communicators bungled the new procedures, they would have had Saturday and Sunday to straighten things out before high traffic volumes resumed on Monday. Friday may also have been chosen to increase the likelihood of surprise. People are more apt to be alert to the possibility of communications changes on the first of the month or the first of the week, not on the last business day of the month.

(TSC) All high-level Soviet communications, including the mainline military, air force and navy nets, went to one-time pads. Without exception, every Soviet cryptographic system the United States had been reading went off the air. Even the systems the United States was not reading changed, although they remained in use. Crypt system discriminants, always in the clear in the past, were suddenly enciphered, with the result that all the systems looked alike. Gone too were the regular callups. The Soviet introduced rotas for schedules, call signs and frequencies. No one could escape the conclusion that the United States had been betrayed by a hostile intelligence penetration.

(S-CCO) Simply put, Black Friday was a disaster. It would take the National Security Agency six years to even begin to regain the lost ground.

(S-CCO) While the aftershocks still rumbled, and long before the betrayer was identified, sweeping changes were made at Arlington Hall. The Army Security Agency scrapped the loosely applied need-to-know policy of the past and introduced a formal system of compartmentation. Never again would non-mangerial employees have such detailed access to across-the-board information on a complete COMINT target. Additionally, as a matter of policy, the Agency would never again disseminate Soviet decrypts as end product.

(S-CCO) Although cryptanalytic recovery of the new Soviet systems would be slow in coming, AFSA would score some brilliant victories in the late 1940s, exposing new treachery on an unprecedented scale.

AFSA Unmasks a Traitor

(U) Although the United States and Britain enjoyed widespread success against Soviet communications in the years before Black Friday of 1948, they were not reading everything. Among the unbroken systems were those used by the Soviet intelligence services. AFSA analysts, on the alert for anything that might unlock a cryptanalytic window, continued to study old Soviet intelligence service traffic, patiently examining archived material, hoping for a breakthrough. Theirs was a thankless task of recording, sorting and logging stacks of unyielding messages. The rewards were small until 1949, when their diligence and perseverance paid handsome dividends.

(U) Cryptanalysts at Arlington Hall made their first important discovery while poring over four-year-old NKVD traffic between the Soviet Union and the United States. Message volumes between the Soviet consulate in New York and NKVD headquarters at One Dzerzhinsky Square in Moscow surged in the summer of 1945. Like a detective who lifts a latent fingerprint at the scene of a crime, AFSA analysts followed up on their clue. They systematically went about the painstaking job of diagnosing batches of old traffic, hoping the increased volume might provide a cryptanalytic thread. Then came another, more dramatic discovery.

(U) A sharp-eyed cryptanalyst with a good memory spotted some old 1945 intercepts that looked vaguely familiar. He did some cross-checking. To his amazement he found that the code had been used before, to transmit low-grade intelligence on Allied shipping movements in and out of New York.

(U) For some unaccountable reason, in the summer of 1945 the Soviet Consulate General in New York had used the same cipher to transmit top-secret intelligence traffic to Moscow. The lapse lasted only a short time, but AFSA made the most of it. For the United States, a Soviet cipher clerk's blunder became an
incredible break. As AFSA cryptanalysts began making inroads into the NKVD traffic from the early nineteen-forties, they came across one startling revelation after another.

(U) American and British counterintelligence officers had long been aware of hostile Soviet intelligence operations, of course. Captured Nazi files from the Second World War contained ample evidence of Soviet attempts to penetrate Western institutions, and Soviet diplomatic communications to posts in North America confirmed the existence of Soviet espionage activities. But the newly deciphered Soviet intelligence traffic from the war years made it clear that the earlier knowledge was only the tip of an ominous iceberg.

(U) For one thing, the penetration threat was far more serious than most American authorities had imagined in 1945. Some of the traffic belonged to Soviet Vice Consul Anatoli Yakovlev, who had been running a major network of illegal agents in the United States and Canada.

(U) According to one Moscow message, a Soviet spy codenamed AGENT 19 was present at the Trident Conference in Washington in 1942 while President Roosevelt, Prime Minister Churchill and White House aide Harry Hopkins discussed opening a Second Front to take some German pressure off the Soviets. According to the Russian spy's report, Churchill—whose cryptonym in the traffic was BEAR—wanted both the Germans and the Russians to take more casualties before the Western allies invaded Europe. In truth, the main obstacle to the early opening of a Second Front was a shortage of transport ships.

(U) In addition to breaking into the Moscow-New York NKVD traffic, the AFSA cryptanalysts enjoyed partial success in solving additives that they applied against messages from posts outside North America. They gradually succeeded in breaking enough traffic to assess the scope of Soviet espionage and intelligence activities in many areas of the world.

(U) Some of the names in the NKVD radio traffic were real eye-openers. One was Eduard Benes, the second president of Czechoslovakia, who suffered a Communist coup d'état for his pains in assisting the NKVD.

(U) Decrypts furnished irrefutable evidence of a spy network in Australia operated out of the Soviet embassy in Canberra and involving Australian civil servants and Communist union leaders.

(U) Still, most serious of all was the inescapable fact that extremely sensitive information belonging to the Western allies had found its way to Moscow. By the fall of 1949 enough shards had been pieced together to demonstrate with alarming clarity that a massive hemorrhaging of American and British secrets had occurred during the war years.

(U) AFSA's codebreaking success against the Moscow-New York traffic led directly to several major counterintelligence actions and celebrated prosecutions, although the role of COMINT was never publicly admitted.

(U) The COMINT trail that led to the unmasking of one spy began with a needle-in-the-haystack reference to a Soviet agent who had a sister at an American university. The FBI combed their records, finally matching that single, seemingly innocent detail with the background of a German-born scientist named Klaus Fuchs who had worked on the atomic bomb. Fuchs' sister Kristel had attended Swarthmore College near Philadelphia for a brief period during the war. The clincher came when the FBI obtained a document Fuchs had written for the Atomic Energy Commission. When AFSA found the same document in the New York-to-Moscow traffic, Fuchs suddenly became a prime espionage suspect.

(U) The source of the leak could have been in any of several spots: inside the White House, in some other part of the American bureaucracy, or in the British embassy in Washington. The only clue AFSA had at the outset was the cryptonym HOMER.
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(U) AFSA asked for copies of all transmissions handled by the British embassy in the summer of 1945 and began matching them against the encoded messages on the New York-to-Moscow link. Before long, additional decrypts of Soviet intelligence traffic yielded evidence of three highly valued Soviet agents, all of whom appeared to have been in London in 1945. Identified only by the cryptonyms HICKS, JOHNSON and STANLEY, their real names remained secret in 1949.

(U) HICKS would eventually be exposed as Guy Burgess, and JOHNSON as Sir Anthony Blunt. In 1949, while the search for HOMER was getting under way, STANLEY was posted to the British embassy in Washington, as the senior MI6 liaison officer to both the FBI and CIA. But in the fall of 1949, no one in Washington could have imagined that the Soviet spy codenamed STANLEY was the distinguished gentleman who represented British intelligence in the United States: Harold Adrian “Kim” Philby.

(U) It would not be an understatement to say that the search for HOMER moved slowly. The FBI was brought in, and counterintelligence specialists working with the decrypts gradually developed information that narrowed the search down to the British embassy. They were clearly treading in a sensitive area to suggest that a member of the British diplomatic corps might have been guilty of high treason. Kim Philby, of course, was receiving copies of all the AFSA decrypts from the New York-to-Moscow link, so he knew precisely how close the investigation was getting to HOMER.

(U) Two and a half years after AFSA first uncovered the compromise of the Churchill telegram, they got the break they needed. For some time the FBI had been focusing its attention on six first secretaries who had had access to particular high-level messages. Early in May of 1951 the cryptanalysts read a fragmentary 1945 message to Moscow saying that HOMER traveled to New York twice a week under the pretext of visiting his pregnant wife. A check back through the records showed that the wife of the first secretary at the British embassy in Washington at the time the Soviet consulate in New York transmitted the Churchill-Truman telegram had been expecting a child in September of 1944. Moreover, at the time, Melinda Maclean had been living at her mother’s New York apartment.

(U) The undeniable evidence that HOMER was none other than Donald Maclean, rising star in the British Foreign Office, sent shock waves through the Anglo-American intelligence community. By the time COMINT stripped his cover away in the spring of 1951, Maclean was back in London heading the Foreign Office’s American desk. MI5 detailed three security officers to keep Maclean under loose surveillance without arousing his suspicions. At ten o’clock on the morning of May 25, 1951, British Foreign Secretary Herbert Morrison signed a written authorization for a MI5 to pick Maclean up for questioning. They were too late.

(U) Considerable speculation exists over the events of that Friday. Whether Philby somehow managed to warn Maclean, or whether the tip-off came through the NKVD station in London has never been made clear. What is beyond dispute is the fact that Donald Maclean and Guy Burgess boarded the boat-train out of London’s Victoria station at 11:45 that evening and were not seen again for five years, until they appeared in Moscow.

(U) The story of the exposure of Donald Maclean as HOMER is much more than a fascinating counterintelligence yarn or the tale of a COMINT triumph. The events themselves give rise to some chilling What-if questions. What if COMINT hadn’t pinpointed HOMER? Might not Maclean have risen to very senior positions in the British Foreign Office? Such a course seemed likely. One might take hypothesis a step further. Had COMINT not blown Maclean’s cover, Kim Philby might never have come under suspicion and might eventually have been elevated to the post of director general of the British Secret Intelligence Service.
Chapter Four

THE DECADE OF THE FIFTIES
(U) The decade of the nineteen-fifties was a transition period for American cryptology. On October 24, 1952, Harry S Truman signed the Presidential Memorandum on Communications Intelligence Activities creating the National Security Agency. On November 1, 1952, AFSA, a product of postwar adjustment, passed quietly into history.

(U) NSA, even in infancy, was too large for Arlington Hall Station. Early in the decade Congress approved the expenditure of construction money, and a site was selected to house the new Agency on the southern edge of the Fort Meade military reservation in Maryland. The sound of bulldozers and concrete mixers and riveters soon echoed across the fields and through the forests along the Baltimore-Washington parkway. A three-story building rose steadily out of the ground to the east of Savage road below the state route 32 interchange. In 1955 a vanguard of NSA analysts set up shop in the red brick Marine barracks along Rockenbach road until the fall of 1956, when the 1,460,000-square-foot Operations Building was ready. By mid-decade the Agency's headquarters and COMINT functions said farewell to Arlington Hall Station and began the move to their permanent home at Fort Meade.

(U) The decade of the fifties saw familiar faces advance into new positions and fresh faces arrive on the scene. Army Major General Ralph J. Canine, AFSA director since July 15, 1951, was promoted to lieutenant general and appointed the first director of NSA. Joseph H. Ream, a graduate of Harvard Law School, left an executive vice presidency at the Columbia Broadcasting System to become the National Security Agency's first deputy director in December 1956. Ream was replaced by Dr. Howard T. Engstrom on October 18, 1957, and Engstrom was in turn succeeded by Dr. Louis W. Tordella on August 1, 1958.

(U) The fifties brought the first allocation of civil service supergrades to the National Security Agency, and in a special ceremony in 1954, General Canine presented the first top supergrade to his special assistant, William F. Friedman.

(U) Two years later, Philip J. Patton Jr. became the first civilian chief of NSA Pacific. A year later he took over all NSA functions in the Far East and moved the expanded NSA Pacific headquarters to Tokyo, Japan.

(U) Rapid changes became the order of the day in the nineteen-fifties, prompted in large measure by the armed conflict that had erupted in Korea in 1950.

AFSA Goes to War in Korea

(U) The Armed Forces Security Agency was not yet a year old when the United States cryptologic system was tested on a new battleground, in an area where the seeds of conflict had been germinating for years.

(U) At the end of the Second World War, the Soviet Union accepted the surrender of Japanese forces in the northern part of Korea and the United States the surrender of Japanese forces in the south. The 38th parallel became the dividing line between the two zones of responsibility in the 600-mile-long peninsula.

(U) The United Nations set up a special commission to supervise nationwide elections, but the Soviets denied access to the area above the 38th parallel. Free elections were held in the south, however, and on August 15, 1948, Syngman Rhee became the first president of the Republic of Korea. Three weeks later, on September 9, came the announcement that the Democratic People's Republic of Korea, claiming authority over all of Korea, had been formed in the north.

(U) Although Moscow announced that the last of its troops pulled out of Korea in December of 1948, the northern half of the country was in reality an armed camp as both the Soviets and Chinese set about building a North Korean fighting machine of impressive strength. By the spring of 1950 North Korea could
boast a 127,000-man army, led by battle-hardened veterans of the Chinese civil war and equipped with Russian artillery, light weapons and about 150 tanks. Combined with the 200-plane air force and the 19,000-man Border Constabulary, they were a formidable force.

(U) The United States had withdrawn nearly all of its armed forces from South Korea in June of 1949, leaving behind only a small military advisory group requested by the Republic of Korea to train its 90,000 soldiers. The ROK forces were hardly a match for their heavily armed northern neighbors. Four of the eight South Korean divisions were equipped with American light weapons and light artillery, but no anti-tank guns, no heavy artillery and no tanks. The other four ROK divisions had only light infantry weapons, most of them Japanese of World War II vintage.

(U) On June 25, 1950, the North Korean forces poured across the 38th parallel, mauling the ROK Army.

(U) For the first time since 1945 the American cryptologic system was suddenly on a war footing, and it wasn’t long before weaknesses began to show.

(U) In the immediate post-World War II period, the United States Communications Intelligence Board, reflecting national policy, had not considered Korea to be a great threat to United States security. Since 1945 the Soviet Union and China had been AFSA’s principal SIGINT targets, with some resources allocated to secondary assignments. Korea only barely made this latter group.

(U) The onset of hostilities found intelligence community interest generally limited to Soviet activities in North Korea, relations between North Korea and the People’s Republic of China and between North and South Korea, this latter to include activity by armed units along the 38th parallel.

(U) In practice, the available resources hardly permitted AFSA to cover even these requirements. Of fewer than collection positions worldwide, two were assigned to North Korean targets in June 1950, and only partial coverage was obtained on the single known North Korean communications net worked by AFSA at the time. All that changed quickly as the services geared up to support field commanders. Within days of the North Korean invasion, AFSA began to rededicate collection and analytic resources to the Korean peninsula.

(U) Navy Captain Redfield Mason put AFSA’s Office of Operations on 24-hour watch. Inside of a week Arlington Hall was receiving intercepted traffic from the field in less than 12 hours.

(U) The Army Security Agency reacted quickly to the invasion of South Korea. Before the conflict was 36 hours old, ASA reassigned Korean language instructors to ASA Pacific headquarters in Japan to meet the immediate need for Korean linguists.

(U) In those first days of fighting, some of the military linguists hadn’t received their full security clearances, so ASA was forced to improvise. Uncleared Army linguists were placed under armed guard in a locked room with four intercept positions tasked to collect North Korean military mainline traffic. As soon as one of the linguists translated an intercepted message, he handed it through a hole in the wall separating the intercept room from the communications center. The translation was sent over a direct line to General MacArthur’s G2. At lunchtime, the door was unlocked and the translators were permitted to go to the mess hall. Then it was back to work behind the locked door. That procedure went on for nearly a month until the security clearances came through.

(U) In September 1950, an advanced ASAPAC detachment, later to be known as the 501st Communications Research Group, became the first ASA unit to be sent to Korea.

(U) The main Air Force COMINT unit in the Far East at the time of the North Korean attack was the The Air Force soon dispatched units of the 1st RSM to Korea, both to support the 5th Air Force and to direct COMINT operations for the Air Force of the Republic of Korea. Eventually an Air Force headquarters, the 6920th Security Group, took command of the units assigned to Korea.

(U) Naval COMINT activity came under the direction of In an era when the services were generally tasked with counterpart or neutral (diplomatic, civil, etc.) communications, the limited size of the North Korean Navy guaranteed only a modest role for naval COMINT. Nevertheless, did contribute useful Soviet ground control intercept and Chinese merchant shipping traffic.

(U) By 1951 the Joint Chiefs of Staff approved an expansion of the U. S. COMINT program to slightly more than collection positions, an increase of over the authorized level at the beginning of the Korean conflict. COMINT had become a growth industry. The end of the fighting in Korea brought
about some retrenchment in resource levels associated with the region, but those were only minor, temporary adjustments in what would become a long period of sustained growth. However, increasing numbers alone were not a panacea.

(U) The Korean war revealed shortcomings in the AFSA's relationships with the service cryptologic agencies. Collection, processing, and reporting of target communications were frequently duplicated, and AFSA was hindered by its limited ability to direct the services' COMINT activities in pursuit of consolidated or national goals. AFSA's early performance certainly wasn't helped, of course, by the shortage of Korean linguists or the low level of effort against COMSEC-conscious North Korea at the outbreak of the fighting.

(TSC) Weaknesses and shortcomings notwithstanding, the Armed Forces Security Agency learned rapidly, and as the fighting progressed, the SIGINT support to field commanders and national decision makers improved dramatically. In July of 1950, when the conflict was barely a month old, AFSA detected the northward movement of the Fourth Chinese Army, an ominous foreshadowing of things to come for those who were paying attention. During the brilliant landing at Inchon on September 15, 1950, COMINT became a principal source of intelligence information for General MacArthur's invasion force. As United Nations forces fought their way up the peninsula toward the North Korean capital at Pyongyang, COMINT kept a watchful eye on the Chinese forces steadily moving around to position themselves on the Manchurian side of the border. In September of 1950, a good two months before 200,000 Chinese "volunteers" slashed across the Yalu River, intercepted North Korean messages were referring to the presence of Chinese troops in North Korea.

(TSC) By 1951, AFSA had U. S. military commanders were using the tactical COMINT to push the Chinese back across the 38th parallel and halt a fierce 600,000-man Chinese offensive.

(TSC) Korea also brought about a major shift in reporting philosophy. AFSA's traditional approach had been to grind out individual translations by the thousands, many on 5 X 8 cards for easier filing. Here's a sample of one.

(U) This method of reporting soon proved to be ineffective in keeping high-level Washington customers informed of key developments in a fast-moving military situation.

(U) In 1951, Milton Zaslow and Robert Drake, the former a future senior NSA executive and the latter a future NSA Deputy Director, developed new reporting techniques to support U. S. forces fighting in Korea. Thanks to their efforts, the bewildering snowstorm of individual translations soon gave way to more manageable wrapups. When the National Security Agency was formed in 1952, their early work led to William Hunt's creation of a consolidated electrical report known as O/GEN, a forerunner of today's NSA SIGSUM and a major step on the road to community acceptance of NSA as a full-fledged intelligence-reporting agency.
(U) The fifties produced other milestones, some directly related to the war in Korea but all part of the forward momentum that has continually characterized the National Security Agency.

(CO) The original National Security Agency, whose key components included the office-level organizations of R&D, Operations, C/SEC and Training, gave way to a restructuring after a year. COMINT production in the NSA of 1953 was divided between two directorates. NSA-70, headed by Dr. Louis W. Tordella, assumed responsibility for development and research problems such as cryptanalysis and economic studies. NSA-90, the Office of Exploitation headed by Colonel worked all the “reportable” problems in the Agency. In theory, as problems analyzed by NSA-70 became exploitable, they were transferred to NSA-90.

(CO) The electrical release of more than SIGINT end product—today’s annual level—was unheard of in those earlier days. The Soviet Branch’s entire annual volume of electrical releases didn’t exceed two dozen items.

(U) Korea highlighted the cryptologic community’s lack of linguistic preparedness. As a direct result, the Language Research Branch was created within the Office of Training in 1952 to produce training and reference materials that would be needed if the Agency had to jump quickly into the processing of a relatively unfamiliar language in the future.

(U) If there is a single area in which the National Security Agency, and AFSA before it, has been a pioneer, that area is the world of electronic computers. In 1950, before the first modern computers became a reality, the AFSA engineering staff at Arlington Hall Station designed and built a computer they nicknamed ABNER, tailored for NSA problems. The first model cost approximately $600,000 to construct and contained 1500 tubes and 25,000 diodes. Four logic units were connected to a 1024, 48-bit word memory in the form of 128 tubes filled with mercury. One end of each tube held a sound-pulse generator and the other a read-out gate which transformed the sound pulses back to electrical signals. The electronic circuitry performed arithmetic, control, analytical, and input-output functions. Although ABNER soon became obsolete, it was the first step beyond primitive IBM card-sorters to relieve cryptanalysts from the traditional drudgery of repetitive pencil and paper trials.

(U) The arrival of the IBM 701 computer at Arlington Hall, some time before the 1955 move to Fort Meade, brought NSA into contact with the first generation of commercial computers.

(U) When the Agency moved from Arlington Hall, the original ABNER stayed behind. At Fort Meade, the engineers went to work on ABNER Model 2, a $750,000-machine that used quartz instead of mercury pools as a medium for the sound pulses. Before long, however, advances in electronic technology made the whole concept of sound pulses and 48-microsecond cycles obsolete, and ABNER-2 was dismantled.
(U) When one looks at the vast array of telecommunications services at the National Security Agency today, it is difficult to imagine that there could have been a time when the Agency had no communications of its own. Yet, the lack of organic communications was a serious flaw that plagued the Armed Forces Security Agency throughout its brief existence. Shortly after the outbreak of fighting in Korea, Commander Arthur Enderlin, chief of AFSA's Communications Division (AFSA-13) prepared a plan for a communications center that would at least give AFSA the ability to handle its own administrative traffic. Although the services didn't oppose the idea directly, they imposed conditions that ultimately doomed the proposal. Among other things, the services stipulated that no additional military personnel would be assigned to AFSA for communications support, nor could AFSA draw on service personnel already assigned to the communications operations at Arlington Hall and the Naval Security Station. The setback was only temporary: before the decade ended, NSA became responsible for its own worldwide telecommunications network.

As COMINT targets continued their move to line-of-sight radio frequencies in the early fifties, new collection techniques like airborne intercept platforms were conceived and developed and honed. The Airborne Communications Reconnaissance Program got its start in 1950 with a Navy PB4-Y and an Air Force Security Service RB-29. Soon afterward, USAFSS put four C-47s to work intercepting North Korean War targets.

But Korea wasn't the only place where COMINT left its mark in the nineteen-fifties. Cryptologic history also was made in Europe in those years.
Throughout much of United States history, the Atlantic and Pacific oceans were viewed as effective natural barriers against foreign attack. As the world grew smaller these two great oceans offered less and less protection than in earlier times. By the late nineteen-fifties, the Soviet fleet posed a major threat to American coastal areas as they initiated activity in the Atlantic. As a result, today the North American coasts, from Baffin Island to Key West, from Point Barrow to Baja, are protected by massive, electronically sophisticated networks of surface-scanning radars, hydrophones and other surveillance hardware, all designed to detect hostile vessels approaching our shores. These elaborate sensors are an integral part of our national defense, sentinels standing guard over the land, summer and winter, in fair weather and foul, and communications intelligence played a key role in establishing their need.

(U) It all began one brisk, windy March morning in 1959 in front of NSA's Fort Meade headquarters with a parade of staff cars turning into Engstrom Road in front of Gatehouse 1. The black sedans discharged their passengers under the snapping flag in front of the gatehouse. A long parade of blue uniforms, sleeves heavy with stripes of gold, passed through the Marine guard checkpoint, up the sidewalk where the present Headquarters Building now stands, into the lobby and up the escalator to what is now the Friedman Auditorium.

(C//CCO) The keen observer would have noticed something special about the uniforms.

(U) The red signs at the front of the auditorium flashed TOP SECRET CODE WORD as the overhead lights dimmed and a hush fell over the audience.

(U) One week before, as a slate-gray sky turned late afternoon to dusk, a white 1958 Plymouth sedan bearing Maryland tags slipped out of the Operations Building basement roadway and up the ramp beneath Gatehouse 4. In the car were three men, two civilians from COSA—the Office of Collection and Signals Analysis—and a Navy Communications Technician First Class in mufti. Concealed in the trunk were high frequency radio receivers, headphones and boxes of fanfold paper.

(U) The driver surrendered his white plastic vehicle pass to the crewcut Marine guard and turned south down the Baltimore-Washington Parkway, his high-finned taillights swallowed up in the gathering night.

(C//CCO) Meanwhile, hundreds of miles to the east, a Soviet ship pitched and rolled in heavy seas, leaving the icy waters of Murmansk far astern as she followed a course that was bringing her within radio range of the three men in the Plymouth sedan.

(U) Racing through the night, the car carrying the three NSA men crossed the Potomac into Alexandria, skirted the Masonic Temple and headed down Telegraph Road to the

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(b) (1)
(b) (3) 50 USC 403
(b) (3) P.L. 86-36
entry, alerted to their impending arrival—but not to their identities or their mission—briefly beamed his flashlight around the interior of the car and waved the driver on to the darkened hut next to the circularly arrayed wooden poles of the unused Wullenweber antenna.

While the wind howled and a chilling rain began falling in great slanting sheets, the three men entered the darkened hut, connected their receivers to the Wullenweber antenna and linked them to direction-finding equipment. Oblivious to the storm raging outside, they listened through the night to the faint signals emanating from the radio room of the as her heavy bows crashed through the black Atlantic swells.

Somewhere around three o'clock in the morning another signal went on the air, and faces brightened inside the lonely hut at This was what they had come for. While one of the men copied the callsigns and chatter on fanfold paper, the other two hovered over the two-foot-wide amber phosphor compass atop the direction-finding unit in the middle of the room, fine-tuning the new signal, refining the bearing until all doubt had been eliminated.

While the gray dawn was no more than a promise on the eastern horizon, the three men hurriedly repacked their equipment in the trunk of the Plymouth and quietly slipped out through the gates of bearing their incontrovertible evidence.

What had been only suspicion within the Office of Naval Intelligence could now be confirmed by the National Security Agency.

The COMINT evidence of Soviet operations was presented, not once, but many times, not to one audience, but to several, from the Director of NSA to the Chief of Naval Operations, from the Secretary of Defense to the Congress, and finally to the White House. The decisions that would follow would take years to implement, the defense systems were still months away from the drawing boards, but the first step had been taken on the windswept A new threat to national security had been defined. From that, everything else would flow.
Chapter Five

THE VIETNAM ERA
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Early SIGINT Associations in Southeast Asia

(U) America's cryptologic involvement with Southeast Asia began long before the military buildup of the mid-sixties, even long before the Franco-Viet Minh war that ended with the expulsion of the French Union forces in 1954. It will no doubt come as a surprise to many to learn that the earliest SIGINT on Southeast Asia came from MAGIC—the decrypted World War II Japanese radio traffic.

(U) From V-J Day until the actual transfer of power in Indochina in early 1946, Japanese occupation forces remained in place as a form of military government. And, although they were a conquered nation, the Japanese nevertheless performed an important peacekeeping role until the victorious Allies could take over. As a consequence, the MAGIC decrypts of reports to Tokyo from Japanese outposts in Hanoi and Saigon provided the United States with SIGINT warnings of the turmoil that lay ahead in that unhappy region of the world.

(U) The MAGIC decrypts of the late summer of 1945 contain reflections of the thinking of people like Ho Chi Minh and Annamese Emperor Bao Dai and their appeals to Washington and Paris to allow the Indochinese states to have their independence after the Second World War. Japanese reports back to Tokyo in the days before and immediately after the surrender provide some indication of how deep was the desire to throw off the yoke of colonialism, how strong the will to resist the return of the French.

(U) Southeast Asia has suffered through political upheavals for centuries. The major factor in those upheavals since the 1920s has been communism. The Communist Party came into the forefront early in World War II and broadened its prewar political base in Vietnam through a policy of collaboration with noncommunist Vietnamese nationalists. Shortly after, a new organization, the Viet Minh—or League for the Independence of Vietnam—was formed to oppose both the Japanese occupation in Vietnam and the return of French colonial control after the war. In the process, Ho Chi Minh, a long-time communist, emerged as the foremost nationalist political leader of Vietnam and the head of the Viet Minh.

(U) United States foreign policy toward Vietnam in the 1940s was characterized by ambivalence and indecision. President Roosevelt apparently could not decide if he should support France's desire to reclaim its Indochina colonies from the Japanese at the end of the war. At his death, American policy toward Indochina was in disarray.

(U) By the spring of 1945, when it was clear that the Japanese were losing the war, Emperor Bao Dai, the nominal ruler of Vietnam since 1925, proclaimed the independence of Vietnam under Japanese protection. He tried to form a new nationalist government at Hue, but Ho and the Hanoi-based Viet Minh refused to recognize Bao Dai's authority. Nevertheless, Bao Dai and Ho Chi Minh shared a common goal: they both wanted to prevent the French from reimposing colonial rule over Vietnam when hostilities ended.

(U) With Japanese fortunes clearly on the wane in July of 1945, the Viet Minh—referred to by the Japanese as Etsumei—adopted an aggressive attitude toward the occupying forces. After a series of minor incidents, they seized arms and ammunition supplied to Bao Dai's security units by the Japanese and, on July 24, launched a fairly large-scale surprise attack on Japanese troops in Tonkin, with resultant casualties to both sides.

(U) Before the Japanese Army could carry out punitive measures against the Viet Minh, rumors of Japan's acceptance of the Potsdam ultimatum began to spread. On the evening of August 12 the commander of Japanese forces in occupied French Indochina informed Japanese army officers and diplomats in Hanoi "in tones of intense grief" that what had been regarded as the "demagoguery of foreign nations was in fact true." He then ordered the army to carry on, maintaining military discipline as usual until they were relieved.
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(U) Newspaper reports on August 16 announcing Japan's surrender led to widespread confusion throughout Indochina. French residents, perhaps aware of the political undercurrents among local factions, openly demanded that Japan be made responsible for the preservation of order. The Annamese began arguing about how to prevent a return of French rule, while terrorist activity broke out among anti-French elements everywhere.

(U) On August 20, less than a week after the Japanese had agreed to the surrender terms laid down at Potsdam, Bao Dai sent two appeals for his country's independence, one destined for the United States and the other for France. They appeared in MAGIC traffic between Hanoi and Tokyo.

The first message, addressed to the "President of the United States of America," said:

Having learned that the Chief of the Provisional government of France will shortly visit Your Excellency for the purpose of determining the future status of Indo-China, we wish to inform Your Excellency that all the Indo-Chinese states have proclaimed their independence and are determined to retain it. Our people, in particular, do not regard the French population as their enemies, and will respect their persons and their properties; but they will resist with every ounce of their strength the re-establishment of French domination in any form whatsoever.

The day of colonial conquest is gone, and a people—especially the people of Viet-nam, who have 20 centuries of history and glorious past—can no longer be placed under the guardianship of another people.

May France bow before this truth, proclaimed and upheld by the noble American nation. May she recognize it with good grace, so that peace will come also to my country, which has already suffered so much from this war without having participated and which asks only to share in the formation of a just peace for the world.

We entreat Your Excellency to communicate the contents of this message to the heads of the governments of Great Britain, China and the U. S. S. R. Please accept, Mr. President, the gratitude of ourselves and of all our people for Your Excellency's kind and noble intervening on our behalf.

(signed) Bao Dai

(U) The second message was addressed "From His Majesty, Emperor Bao Dai, to General De Gaulle and the French people."

I address myself to the people of France, to the country of my youth, and also to her chief and liberator; and I wish to speak as a friend rather than a Chief of State.

You have suffered too much during four mortal years not to understand that the Annamese people, who have twenty centuries of history and a past frequently glorious, no longer wish and no longer can tolerate any foreign domination or administration.

You would understand even better if only you could see what is happening here, if you could feel this will for independence which lurks in the depths of all hearts and which can be repressed no longer by any human power. Even if you succeeded in re-establishing a French administration here, it would no longer be obeyed; each village would be a nest of resistance, each former ally an enemy; and your officials and colonists themselves would ask to leave this oppressive atmosphere.

I beg you to understand that the sole means to salvage French interests and the spiritual influence of France in Indo-China is to recognize openly the independence of Viet Nam and to abandon any ideas of re-establishing French Sovereignty here or a French administration in any form whatsoever.

We could so easily come to an understanding in other ways and become friends if only you would cease undertaking to become once more our masters. Appealing to the well-known idealism of the French people and to the great wisdom of their leader, we hope that the peace and joy which have sounded for all the peoples of the world will be assured equally for all the inhabitants of Indo-China.
On that same day, August 20, 1945, the Viet Minh proclaimed martial law in the Tonkinese capital of Hanoi. Japanese Minister Tsukamoto in Hanoi informed Tokyo by radio that the Japanese army would observe a policy of restraint as long as no Japanese nationals were harmed. The Japanese sent tanks into the city, but the army didn't clash with the Viet Minh.

Japanese observers on the scene in the late summer of 1945 saw early signs of trouble as friction grew between the aggressive Viet Minh and forces loyal to Emperor Bao Dai. On August 21, the day following the martial law proclamation, the Viet Minh informed Japanese Consul General Nishimura in Hanoi:

As of today, we have taken over the Northern Political Committee which set up the Emperor of Annam; we have reappointed a leader for them and are not awaiting the formal appointment from [the Bao Dai Nationalist Government at] Hue.

This cable from Nishimura to Tokyo showed how puzzled the Japanese were over Viet Minh motives.

Since the attitude of the [Viet Minh] movement was to disavow Bao Dai and the Nationalist Government, it is extremely strange just how Etsumei could undertake a conciliation with Hue and yet continue to carry on a revolutionary policy against them.

On August 22 the Viet Minh informed Nishimura that they were lifting martial law in Hanoi because of a lack of sufficient arms to keep public order. A request that the Japanese supply the necessary arms apparently was refused. Nishimura suggested to Tokyo that the Japanese adviser to Bao Dai's government—a diplomat named Yokoyama—might be able to mediate a compromise between the Viet Minh and the Bao Dai government. Yokoyama, however, was unsuccessful and on August 23 he reported to Tokyo:

I have achieved no success in my negotiations with Etsumei. Since the revolutionary movement in the large cities is gaining in proportion the Cabinet is determined to resign en masse and the Emperor has decided to abdicate.

The pendulum of power in Indochina had taken a decided swing toward the Viet Minh.

In the meantime an American plane carrying 16 American and five French officers had landed in Hanoi. According to Tsukamoto's report to Tokyo, the arrival created a "great sensation, the joy of the French knew no bounds, and the Etsumei began a unified onslaught of propaganda."

The Viet Minh immediately stepped up their campaign against the return of French colonial rule by agitating in the streets. Placards with slogans like "Down With French Imperialists," "Independence or Death," and "Welcome to the Allied Nations" were posted all over the city in English, Chinese, and Russian. But the protest took on more ominous forms as well. Tsukamoto reported that Viet Minh leaders were secretly taking important Frenchmen into custody, and "at night time there was frequent gunfire."

On August 22 Bao Dai announced his abdication, turning the imperial seal over to Ho Chi Minh. The Viet Minh wasted no time, acting swiftly to establish the "Provisional Government of the Viet Nam Republic" headed by President Ho Chi Minh.

At the same time, 50,000 of Ho Chi Minh's followers in the Cochin-Chinese capital of Saigon established the Southern Section of the newly formed provisional government. In the process they imprisoned Bao Dai's representatives, took over the administrative offices and apparently exercised complete control of Cochin-China. According to reports radioed to Tokyo, local Japanese army authorities "maintained a neutral attitude and continued to protect the Japanese, French and other foreigners."

Between August 25 and 30, the new provisional government informed Japanese officials that they "desired extremely friendly relations with Japan in the future," and that they had reached "a certain degree of understanding with the United Nations in regard to the maintenance of independence." The Japanese authorities in Indochina duly reported these developments, noting that as far as France was concerned, the new government held "the trump-card of a nationwide people's rebellion," and there was "no way out through negotiations."

The Viet Minh made two requests of the Japanese at the end of August. First, they asked the Japanese to turn over their posts to the new government; and second, they wanted the Bank of Indo-China
transferred from the control of the Japanese authorities to the provisional government. Tsukamoto informed Tokyo that "we were forced to consent to the second request as an immediate measure." Later, however, the Japanese changed their minds and decided to retain control of both the bank and the central offices of the Government General until the Allies took over.

(U) By now the pace of events in Indochina was quickening, and cables between Tokyo and outposts in Indochina at the time suggested that the Japanese would just as soon get out of there. Conditions appeared to be growing more volatile by the day. Throughout Indochina Japanese officials were "working without stint on measures for the protection of resident Japanese." On August 30 the Japanese Army informed their military advisors in Indochina that "since it had become impossible for them to carry on their duties any longer, they might as well evacuate."

(U) Japanese diplomatic officials, however, were instructed to remain in place to oversee the protection and evacuation of Japanese nationals since the situation was such that "if we do not act quickly, it will be too late to act at all." Japanese residents were ordered to incorporate themselves into "self-controlled groups" in the cities and prepare themselves for the Allied occupation.

(U) Perhaps one of the more prescient observations to come out of Indochina in the late summer of 1945 was this excerpt from a cable to Tokyo: "when one considers the situation [in French Indochina] after the Japanese Army is gone, he cannot fail to be struck with terror."

(U) On September 2, 1945, the day hostilities officially ended, Ho Chi Minh proclaimed Vietnam an independent state, dropping the "provisional" from the name of his government and establishing the Democratic Republic of Vietnam, with former Emperor Bao Dai a high counselor. The new flag of Indochina flew over Hanoi and Saigon, and Japanese observers reported that huge crowds had gathered to participate in the celebration of independence and welcome the Allies. In Hanoi the celebration ended without mishap, but numerous clashes erupted in Saigon, resulting in the death of two Frenchmen and 20 Annamese, and injuries to 21 Frenchmen and 120 Annamese.

(U) Consul General Kawano in Saigon sent this dispatch to Tokyo:

The Mountbatten Headquarters has inquired closely into Japanese responsibility in the incidents, and has demanded punishment of the Japanese police officials who were responsible, arrest of the responsible people in Etsumei, and the dispersal of the revolutionary army.

(U) Apparently the Allied headquarters ordered the Japanese Army to enforce these demands.

(U) Ten days later, on September 12, British troops began landing in Saigon. As part of the agreements reached at Potsdam in July, at the end of the war in the Pacific the British would accept the surrender of the Japanese south of the 16th parallel and the Chinese would do the same north of the parallel. A few days later French forces began landing in Saigon and were unsuccessfully resisted by the Vietnamese.

(U) Commenting on the situation in the British Zone, a Japanese dispatch from Saigon offered the opinion that the disturbances of September 2 had resulted in the discrediting of the Viet Minh regime in Cochin-China and given the French "a pretext to seize control over administration to some degree."

(U) On September 13 the Japanese reported to Tokyo that "order has been restored to Saigon for the time being and we are maintaining as close contact with the Allied Headquarters as we possibly can, merely awaiting their orders and instructions," adding darkly, "the anti-French feeling is still prevalent and an extremely bad situation is brewing." For the moment, things seemed to be under control in Tonkin, too. Chinese troops were beginning to arrive in Hanoi. The Japanese were watching the situation closely. On September 14, Japanese authorities in Hanoi reported that the new Viet Minh government was achieving a definite form and that the liaison between the Viet Minh and the remaining Japanese forces was steadily improving. The Japanese attributed the comparative calm in Hanoi to promises of broad self-government made by advance French officers to the Viet Minh. Nevertheless, the Japanese felt that the situation between the Viet Minh and French was beginning "to show signs of unrest."

(U) By the end of September the Japanese forces still left in Indochina were anxious to be relieved as relations between the Chinese and the French chafed and local political passions simmered. An example of the Japanese view appeared in this MAGIC decrypt of Hanoi-to-Tokyo traffic from September 23:
The Annamese Government has taken over the actual administration but this has created confusion in the carrying on of the French administration in the southwest and southern areas. At the present time the position of the responsible government authorities is not clear. . . . pillaging, robbery, etc., are rampant, just as if there were no government. If the French Army will take over at this time (and it appears that this probability is growing) the Annamese will resort to scorched-earth, guerrilla warfare. If they should put up a resistance, this will create an outbreak of trouble for the Chinese, French and Annamese Armies. The lack of rice, resulting in famine, will inevitably throw public order into chaos. Under such circumstances, we have become concerned about the fact that we are absolutely unable to protect the property and lives of Japanese nationals in Hanoi who have been politically involved. . . . we again ask you that you please arrange to find ships for their evacuation in the near future.

(U) This Japanese summary from Hanoi on September 29 presented a further picture of deteriorating conditions in the northern part of the country, where Chinese forces were taking over from the Japanese and the French were poised to return to their old colony.

Since the surrender ceremonies, [Japanese] soldiers have been permitted to wear swords, but disarmament will be carried out gradually from now on. It is understood that each unit has been permitted to retain rifles and side arms in extremely small quantities. . . .

The Chinese authorities, disregarding considerations of the complicated political situation here and repeated entreaties from us, have not carried out the transfer of administration matters as planned. . . . The Chinese seem to be utterly disregarding the wishes of the French and until recently have made clear to the local military their intention to enforce a military administration. Since then, the French and Chinese representatives have been at odds; Lu Han refused the French request for formal representation at the surrender ceremonies and had them attend as observers.

In regard to the machinery of the military administration, although it has not yet been confirmed, it appears that Lu Han will be the Supreme Commander. . . . It seems that Lieutenant General (Sho?) has been nominated to represent Kuomintang Headquarters and watch over Lu Han. . . .

Public order inside the city of Hanoi has gradually worsened and the police have become completely powerless. . . . thieves throng the streets and damage, especially among the Japanese, is increasing.

Although the French appear to be awaiting the [arrival] of about 4800 former French Indo-China troops now being held at the Yunnan border by the Chinese, 4000 of these are Annamese, and units of foreigners comprise the main strength of the rest. Such being the case, if, by way of experiment, they were to have them enter the country by land route, it would not be difficult to predict revolt on the part of the Annamese troops. Moreover, although the 4000-odd French troops who are prisoners of war here are in a state tantamount to liberation, judging by the attitude of the Chinese, there is no way to acquire arms. Thus the French can take no immediate drastic steps. . . .

No moves by the American representation have been evident, but it appears that they may be prevailing upon the Viet Minh not to resort to violence and at the same time making skillful use of their position as mediator. . . . "

(U) It was during this period in the late summer of 1945, while Viet Minh forces were in still in control in Hanoi, that Ho Chi Minh sent a request through the Office of Strategic Services to President Truman asking that Vietnam be accorded “the same status as the Philippines” for a period of tutelage pending independence. From October 1945 until the following February, Ho Chi Minh wrote at least eight more letters to President Truman or to the Secretary of State, formally appealing for United States and United Nations intervention against French colonialism. There is no record that any of the appeals were answered.

(U) Chiang Kai-shek and the Chinese carried out their commitment north of the 16th parallel and at first supported Ho’s government. In February 1946, however, the Chinese concluded an agreement with the
American policy toward the developing situation in Indochina remained ambivalent. The Truman administration at first had no clear-cut reaction to the growing conflict between the French and the Viet Minh. Secretary of State George C. Marshall described Washington's quandry in a telegram to the embassy in Paris:

Ho Chi Minh handed me 2 letters addressed to President of USA, China, Russia, and Britain identical copies of which were stated to have been forwarded to other governments named. In 2 letters to Ho Chi Minh request USA as one of United Nations to support idea of Annamese independence according to Philippines example, to examine the case of the Annamese, and to take steps necessary to maintenance of world peace which is being endangered by French efforts to reconquer Indochina. He asserts that Annamese will fight until United Nations interfered in support of Annamese independence. The petition addressed to major United Nations contains:

A. Review of French relations with Japanese where French Indochina allegedly aided Japs:
B. Statement of establishment on 2 September 1945 of PENW Democratic Republic of Viet Minh:
C. Summary of French conquest of Cochin China began 23 September 1945 and still incomplete:
D. Outline of accomplishments of Annamese Government in Tonkin including popular elections, abolition of undesirable taxes, expansion of education and resumption as far as possible of normal economic activities:
E. Request to 4 powers: (1) to intervene and stop the war in Indochina in order to mediate fair settlement and (2) to bring the Indochinese issue before the United Nations organization.

The petition ends with the statement that Annamese ask for full independence in fact and that in interim while awaiting UNO decision the Annamese will continue to fight the reestablishment of French imperialism. Letters and petition will be transmitted to Department soonest.

We have fully recognized France's sovereign position and we do not wish to have it appear that we are in any way endeavoring undermine that position.

At the same time we cannot shut our eyes to fact there are two sides this problem and that our reports indicate both a lack of French understanding other side and continued existence dangerously outmoded colonial outlook and method in areas.

On other hand we do not lose sight fact that Ho Chi Minh has direct communist connections and it should be obvious that we are not interested in seeing colonial empire administrations supplanted by philosophy and political organization directed from and controlled by Kremlin.

Frankly, we have no solution of problem to suggest.

The United States refused French requests for planes and ships to transport French troops to Indochina and similarly turned down appeals for American arms to help fight the Viet Minh. Washington also rebuffed the appeals from Ho Chi Minh. While in a sense this position may have appeared to be an attempt at evenhandedness, nonintervention by the United States on behalf of the Vietnamese was tantamount to acceptance of the French.

In March 1946 the French government signed an agreement with Ho Chi Minh recognizing his Democratic Republic of Vietnam as a "free state" within an Indochinese Federation and the French Union. As a result, French forces were allowed to land in the north, but relations between France and the "free state" did not improve.

In September Ho Chi Minh signed another agreement with the French, this one aimed at the resumption of French economic and cultural activities in northern Vietnam in return for French promises to introduce a more liberal regime. The agreement did not include recognition of Vietnamese unity or
independence, and many within Ho's regime opposed it. When the French attempted to enforce customs control, Vietnamese hostility increased. In November 1946 shooting erupted in Haiphong and the French bombarded the city, killing some six thousand Vietnamese. On December 19 the Vietnamese attacked the French.

(U) Thus began the Indochina War.

Policy Shift and Deeper SIGINT Involvement

(U) The next phase of United States SIGINT association with events in Southeast Asia came about as a direct result of national policy decisions.

(U) In the late nineteen-forties, Washington's anxiety over Soviet expansion in Eastern Europe led to a view that communism was a monolithic movement tightly controlled from the Kremlin. Worry over Ho Chi Minh's communist affiliations resulted in a survey by the State Department's Office of Intelligence and Research in the fall of 1948. But INR couldn't find any hard evidence that Ho Chi Minh actually took his orders from Moscow. Nevertheless, hoping to encourage a noncommunist alternative to Ho, the Truman administration pressed Paris to give more independence to the Indochina states. But when France granted Vietnam its independence within the French Union, the United States still wasn't satisfied. Washington, afraid that Bao Dai was weak and tainted with French colonialism, still withheld its backing. In a cable to the American embassy in Paris, the State Department said:

We cannot at this time irretrievably commit the U.S. to support of a native government which by failing to develop appeal among Vietnamese might become virtually a puppet government separated from the people and existing only by the presence of French military forces.

(U) By the end of 1949, after Mao Tse-tung's armies had driven Chiang Kai-shek out of mainland China, Washington was ready to take another look at Bao Dai.

(U) On December 30 President Truman approved N.S.C. 48/2, a National Security Council study on Asia, the effect of which was to set United States foreign policy on a course designed to block further communist expansion in Asia. The study concluded with the statement that "particular attention should be given to the problem of French Indochina." When Peking and Moscow recognized Ho Chi Minh's Democratic Republic of Vietnam in January of 1950, Washington followed by recognizing Bao Dai on February 7.

(U) On February 16, 1950, the French asked for military aid and, in a memorandum to the President, Secretary of State Dean Acheson recommended approval, saying, "The choice confronting the U.S. is to support the legal governments in Indochina or to face the extension of communism over the remainder of the continental area of Southeast Asia and possibly westward." On May 8, the United States announced that it would furnish both economic and military aid to the French in Indochina, starting with a $10 million grant. The first step had thus been taken, putting the United States on a collision course with events in Southeast Asia.

As early as mid-1957 the North Vietnamese had formed border-crossing units to slip personnel into South Vietnam across the Line of Demarcation as well as through Laos. Additionally, at the Lao Dong Party's 15th Central Committee meeting in May of 1959, North Vietnamese leaders formally took control of the growing insurgency in the south. Work was begun on the Ho Chi Minh Trail, the long network of
supply lines into the south, and Cochin-Chinese cadre members who had been taken north after the partition of the country were infiltrated back to the south.

(U) In September 1960 the Vietnamese Communist party made its position unmistakably clear by adopting a resolution stating that one of its main objectives was to "liberate South Vietnam from the ruling yoke of the U.S. imperialists and their henchmen." On December 20, 1960, Hanoi formed the National Liberation Front as the political arm of the Viet Cong.

(CCCO) From 1960 onward, SIGINT operations in mainland Southeast Asia were gradually expanded. Permanent field sites were negotiated and built in both South Vietnam and Thailand.

Through 1960 and into 1961 NSA reported to communist Pathet Lao forces in Laos. In February 1961 SIGINT detected the deployment of North Vietnamese tactical military units in Laos. By this time NSA was furnishing SIGINT support to the United States military command in Saigon and, as interest in events in Southeast Asia grew, SIGINT began to play a larger and larger role.

(U) The major SIGINT buildup in Southeast Asia began years before the introduction of United States combat forces into the area. The decision to put SIGINT personnel into Vietnam had its roots in an interdepartmental study entitled "A Program of Action for South Vietnam," which was presented to President Kennedy on May 8, 1961.

(U) Under "Covert Actions," the plan recommended augmentation of the SIGINT capability against targets in both North and South Vietnam.

b. Communications Intelligence: Expand the current program of interception and direction-finding covering Vietnamese Communist communications activities in South Vietnam, as well as North Vietnam targets. Obtain further USIB authority to conduct these operations on a fully joint basis, permitting the sharing of results of interception, direction finding, traffic analysis and cryptographic analysis by American agencies with the Vietnamese to the extent needed to launch rapid attacks on Vietnamese Communist communications and command installations.

This program should be supplemented by a program, duly coordinated, of training additional Vietnamese Army units in intercept and direction-finding by the U.S. Army Security Agency. Also, U.S. Army Security Agency teams could be sent to Vietnam for direct operations, coordinated in the same manner—Approved by the President at the NSC meeting of 29 April 1961.

CCCO) Presidential approval of those actions was quickly translated into action in the form of two Army Security Agency operations plans that would lead to the deployment of the first ASA units to South Vietnam. The ASA SIGINT mission, covernamed WHITEBIRCH (OPLAN 7-61), was "to increase U.S. COMINT/DF capability against guerrilla communications of Communist forces in South Vietnam, North Vietnam and Laos, with the primary objective being guerrilla forces in South Vietnam." The training mission, covernamed SABERTOOTH (OPLAN 8-61), was to help train the ARVN SIGINT organization in intercept, direction-finding and processing of plaintext voice communications.

CCCO) The word went out through COMINT channels from NSA Director Vice Admiral Laurence Frost to ASA commanding general Major General William Breckinridge and on down the chain to ASAPAC commander who ordered the assembling of the 400th USASA Special Operations Unit (Provisional) at Clark Air Base in the Philippines. On May 13, 1961, and 93 men entered South Vietnam as the 3rd Radio Research Unit.

(U) By the fall of 1963, American officials were publicly expressing optimism about the success of United States policy in Vietnam. South Vietnamese military operations during 1962 had had a restraining effect on the Viet Cong insurgency, and the strategic hamlet program seemed to be working in the countryside. Consideration was given to withdrawing some of the 10,000 United States advisors then in South Vietnam. But in November, American fortunes went into a tailspin with the overthrow of the Diem regime in Saigon. The following January a coup d'etat toppled the government of General Nguyen Khanh. The previous reports of progress against the insurgency turned out to have been overly optimistic.

(SCK) By 1964, Marine Brigadier General Carl Youngdale, the senior intelligence officer at MACV headquarters in Saigon, was expressing concern over reports of close cooperation between the Cambodian
government and the Viet Cong. The senior NSA representative in Vietnam, Army Colonel...

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O 121915Z ZYH
FM DIRNSA
TO OSCAR/NOVEMBER INDIA ZEM
SECRET SABER-2X/O/CEM/T14-64

SECRET/7041-64
FIVE THOUSAND VIET CONG PREPARING AMBUSH
FR ((M)): 2BG((A)) 12 MAY 64 1200
TO ((M)): 0JV((A)), 1PI((A)), ON MISSION -12
INFO 6DN((A)), 2ET((A)), 3SG((A))

SUBJECT: SYNOPSIS OF INFORMATION. ON 11 MAY 64 SITUATION CALM OPPOSITE OUR TROOP FORMATIONS. SKIRMISH BETWEEN ARVN AND VC TOOK PLACE IN LONG CHU XT 230/472 AT ABOUT 1400 HOURS. FARVN LOSSES: 7 KILLED, 4 RIFLES TAKEN. ON 12 MAY 1964 THREE H-21 ((HELICOPTERS)) AND 3 ARTILLERY PIECES FROM BEN KEO XT 230/433 SHOT AND BOMBED GO CHAI XT 180/413 FOR FIFTEEN MINUTES. AT PRESENT ONE ARVN PARATROOP COMPANY IS OPERATING IN THE REGION OF LONG CHU WITHOUT TANK OR AIRCRAFT SUPPORT. ABOUT FIVE THOUSAND VC REGROUPED AT PREY CHAMKAR XT 130/330 PREPARING FOR AMBUSHES IN DIFFERENT POINTS, FOR EXAMPLE TRAP TAON XT 150/319 Awaiting return of ARVN ELEMENTS TO TAY NINH. VERIFICATION FOLLOWS.

((A)) UNIDENTIFIED.

GP-1-SECRET

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In June of 1964, Colonel (later Major General) John Morrison, the Chief, NSA Pacific, told CINCPAC that a further SIGINT expansion in South Vietnam was essential if growing requirements for MACV, MACTHAI, CINCPAC and Washington consumers were to be met. The Joint Chiefs of Staff approved an additional 39 intercept positions by the end of the month.

In the long view of history, all these early SIGINT associations with Southeast Asia, from World War II MAGIC to the start of the buildup in June of 1964, were really preliminary episodes. By midsummer of 1964 the curtain was going up on the main event, and no single element in the United States government played a more critical role in national decisions, both during and after the fact, than the National Security Agency.
Chapter Six

THE GULF OF TONKIN INCIDENT
CHAPTER SIX
THE GULF OF TONKIN INCIDENT
The DESOTO Patrols and OPLAN 34A

The clash between United States destroyers and North Vietnamese naval vessels in the Gulf of Tonkin in early August of 1964 was a pivotal incident in the deepening American involvement in Southeast Asia. For months, and even years afterward, the details of what happened on the fateful night of August 4, 1964, would be as controversial as any episode of its kind in United States history. But inside NSA, the picture was far from hazy. Intercepted North Vietnamese communications told a story that could not be revealed to the public although the evidence was persuasive enough to use as a cornerstone for a new direction in American policy toward North Vietnam. President Johnson's decision to use that incident to support the approach to Congress that led to the Gulf of Tonkin Resolution was based principally on the SIGINT evidence.

To set the scene, it will be helpful to go back and look at the evolution of two United States programs that contributed to the watershed events of early August 1964. The first was the deployment of Seventh Fleet destroyers along the coast of North Vietnam, and the second was a covert endeavor known as OPLAN 34A.

In late 1961 the United States began planning a series of naval patrols off the eastern coast of the People's Republic of China. Operating under the covername DESOTO, Seventh Fleet destroyers established American presence in international waters off the coast of China and served as a minor Cold War irritant to the Chinese—while collecting SIGINT.

The USS De Haven conducted the first DESOTO patrol in April 1962 in the Tsingtao area of the Yellow Sea, triggering valuable intelligence-producing actions. Three, sometimes more, Chinese vessels bearing deceptive pennant numbers shadowed the De Haven and jammed her communications. During the seven-day DESOTO mission the Chinese also issued three "serious warnings" to the De Haven for violating territorial waters. Eight more DESOTO patrols were run in 1962, along east and north China and up the Korean coast as far as the Soviet Gulf of Tartary.

In December 1962 the USS Agerholm made the first probe into the South China Sea and the Gulf of Tonkin around Hainan Island. In April 1963 the USS Edwards circled Hainan island and then extended its course down the North Vietnamese coast. PRC reactions were limited to the now-familiar shadowing and "serious warnings." Since the Chinese had issued over 350 "serious warnings" for alleged United States air and sea violations, in addition to the DESOTO patrols, no special significance was attached to them.

In late February and early March of 1964, the Democratic Republic of Vietnam did react to the third DESOTO probe into her coastal waters. Radar stations tracked the USS Craig and DRV naval communications referred to her by hull number. Although the SIGINT from the Craig's mission wasn't voluminous, it did contribute new insight into DRV tracking station locations, equipment and capability.

The USS Maddox embarked on the fourth DESOTO patrol in the Gulf of Tonkin at the end of July 1964. Her mission was to observe the junk fleet suspected of transporting guerrillas to the south, obtain navigational and hydrographic data and acquire intelligence on the North Vietnamese Navy. The latter item is of considerable importance, first because the Geneva Accords of 1954 specifically prohibited the Democratic Republic of Vietnam from having a naval force and second because of SIGINT's role in detecting DRV naval activity.
The importance of the Maddox's intelligence-gathering mission was clear as she took up station along the 17th parallel on July 31, 1964. At 1:00 p.m. the Maddox turned northward on a course up the coast, staying 12 miles off the North Vietnamese shoreline.

At this point in the story it will be useful to consider another dimension to the events that were about to occur in the Gulf of Tonkin.

On December 21, 1963, following Secretary of Defense Robert McNamara's return from a two-day trip to Vietnam, he sent a "Vietnam Situation" memorandum to President Johnson praising a plan drawn up by MACV and the CIA's Saigon station. McNamara said the plan presented "a wide variety of sabotage and psychological operations against North Vietnam from which I believe we should aim to select those that provide maximum pressure with minimum risk." On the basis of McNamara's recommendation, President Johnson approved Operation Plan 34A, authorizing a program of covert air and naval operations against North Vietnam. They began on February 1, 1964.

OPLAN 34A was a clandestine program of coastal and air raids conducted against North Vietnam and was but one of several Johnson administration initiatives designed to pressure Hanoi into abandoning its support of the insurgency in the south. It is important to this story because of its attendant SIGINT Support Plan, known as KIT KAT, and the convergence of OPLAN 34A and DESOTO patrol activities in the Gulf of Tonkin in early August of 1964.

Once the president approved OPLAN 34A, CINCPAC directed an increase of 130 SIGINT personnel in South Vietnam to staff the KIT KAT SIGINT support program. Intercept stations at Saigon, Phu Bai and Danang were augmented with personnel from the Philippines and Hawaii, and Army Colonel [Redacted] the NSA representative in Saigon, set up a Special Support Group—known as the SSG—to consolidate SIGINT reflections of OPLAN 34A raids. Located in the MACV II compound on Tran Hung Dao street in Cholon, the SSG pulled together all the KIT KAT SIGINT results from the intercept sites and passed them to SOG, the joint MACV-CIA Studies and Observations Group, nerve center for OPLAN 34A operations.

By the end of July 1964, OPLAN 34A MAROPS (maritime operations) were being launched almost daily from Danang. On July 30, South Vietnamese naval commandos staged a midnight amphibious raid on the North Vietnamese islands of Hon Me and Hon Nieu in the Gulf of Tonkin. At the time of the assault the USS Maddox was 120 to 130 miles away, heading north into the gulf on DESOTO patrol under sailing orders forbidding her to approach closer than eight nautical miles to the North Vietnamese islands in the gulf.

The following night, North Vietnamese naval communications reported that the "enemy" had fired on Hon Me island. At about the same time this information was intercepted, the Maddox reported sighting North Vietnamese patrol craft in pursuit of several unidentified vessels. The Maddox made no attempt to investigate.

Whether the North Vietnamese associated the July 31 attack with the presence of the Maddox in the Gulf of Tonkin is impossible to say. The DRV did protest to the International Control Commission that "American imperialists" had shelled one of their fortifications, but that was a constant DRV complaint and so could not be directly attributed to the presence of the Maddox. However, as the Maddox resumed her prescribed patrol route on August 1, putting her on a course past Hon Me island, SIGINT reported reflections of DRV naval awareness of the United States destroyer in the following end product:
Shortly after DRV radar placed the *Maddox* near Hon Me Island, an intercepted North Vietnamese naval message stated that it had been "decided to fight the enemy tonight." The *Maddox* was so warned, more than 12 hours before the actual DRV attack. SIGINT stations were soon picking up continuous DRV radar tracking of the *Maddox*. In addition, they intercepted several North Vietnamese naval messages pre-positioning warships for attack.

(U) A little after 11:30 a.m. Saigon time on August 2, the *Maddox* sighted five naval vessels—three PTs and two probable Swatow-class PGMs (motor gunboats)—and a large fleet of about 75 junks 10 miles north of Hon Me Island. The North Vietnamese vessels were apparently searching the seas for OPLAN 34A raiders. The *Maddox* changed course twice to avoid the DRV patrol boats, reached the northernmost point of her patrol track at 12:15 p.m., and headed south again.

(U) Shortly after the *Maddox* resumed her southerly track, an intercepted North Vietnamese naval command message said that the time had come to close with the "enemy" and use torpedoes. The *Maddox* received this SIGINT warning some 50 minutes before the onset of aggressive actions.

### The First Attack

(U) At 3:30 p.m., while the *Maddox* was 23 miles from shore, her radar showed three torpedo boats 20 miles away and closing at a speed of 50 knots. The *Maddox* increased speed to 25 knots and altered course to a southeasterly heading that would take her to the mouth of the Tonkin Gulf. The torpedo boats were now only 10 miles away, continuing their high-speed run at the destroyer. The *Maddox* requested air support and posted all hands at battle stations.

(U) By 4:00 the DRV boats were within five miles of the *Maddox* and still racing along at close to 50 knots. When they moved into column formation in preparation for a torpedo assault, the *Maddox* fired three rounds across the bow of the lead vessel. The warning shots failed to dissuade the North Vietnamese, and at 4:07 the *Maddox* reported that she was under attack.

(U) The PT boat formation split astern of the *Maddox*, two approaching the destroyer's right side and one coming at her from the left. The two boats on the *Maddox*'s right side each launched one torpedo from a distance of 2700 yards. The *Maddox* swung hard aport to avoid the torpedoes, keeping the attacking craft under fire. Just as the third PT boat dropped a torpedo in the water, one of the *Maddox*'s five-inch guns slammed a shell into her hull, scoring a direct hit. At that point, air support from the carrier *Ticonderoga* came screaming out of the sky and engaged the attacking vessels, allowing the *Maddox* to withdraw.

(U) When the smoke cleared, one North Vietnamese torpedo boat was dead in the water and burning; the other two had suffered extensive although not disabling damage. One of the *Maddox*'s guns had sustained slight damage.
The next day, August 3, President Johnson ordered the Maddox reinforced by the destroyer C Turner Joy and sent both ships back to the gulf with instructions to stay at least 11 nautical miles off the North Vietnamese coast. Additionally, the aircraft carrier Constellation, on a visit to Hong Kong, was ordered to join the Ticonderoga as quickly as possible. By taking these actions, the United States made a clear public statement of its intent to continue the DESOTO patrols and issued a firm warning to the Democratic Republic of Vietnam that any repetition of the assault of the previous night would bring dire consequences.

The DESOTO patrol resumed at 9:00 on the morning of August 3, and throughout the day both the Maddox and Turner Joy picked up radar indications that made them believe the North Vietnamese were following their progress closely.

Meanwhile, in Saigon, MACV SOG had ordered two more OPLAN 34A attacks for the night of August 3.

Running up the coast under cover of darkness, South Vietnamese PT boats bombarded a radar installation at Vinh Son and a security post on a Mui Ron, two protrusions extending from the North Vietnamese mainland. On the way back down to Danang, one of the attacking craft was pursued for an hour by a North Vietnamese patrol craft.

The Second Attack

Captain John J. Herrick, commanding Destroyer Division 192 and operational boss of the Maddox and C Turner Joy, read all the SIGINT that was available to him aboard the Maddox and decided that the North Vietnamese were pretty stirred up by this latest OPLAN 34A shelling—the first against the mainland. At approximately 5:30 on the morning of August 4 Herrick cabled the following to his superiors:

EVALUATION OF INFO FROM VARIOUS SOURCES INDICATES THAT THE DRV CONSIDERS PATROL DIRECTLY INVOLVED WITH 34-A OPERATIONS AND HAVE ALREADY INDICATED READINESS TO TREAT US IN THAT CATEGORY . . .

DRV ARE VERY SENSITIVE ABOUT HON ME. BELIEVE THIS PT OPERATING BASE AND THE COVE THERE PRESENTLY CONTAINS NUMEROUS PATROL AND PT CRAFT WHICH HAVE BEEN REPOSITIONED FROM NORTHERLY BASES . . .

UNDER THESE CONDITIONS 15 MIN. REACTION TIME FOR OPERATING AIR COVER IS UNACCEPTABLE. COVER MUST BE OVERHEAD AND CONTROLLED BY DD'S AT ALL TIMES.

The Navy was keeping a close eye on developments in the gulf, and during the morning of August 4 Admiral Thomas Moorer, Commander in Chief of the Pacific fleet, recommended continuing the DESOTO patrols. His cable to Admiral U. S. Grant Sharp, Pacific Commander in Chief, included this supporting explanation:

TERMINATION OF DESOTO PATROL AFTER TWO DAYS OF PATROL OPS SUBSEQUENT TO MADDOX INCIDENT . . . DOES NOT IN MY VIEW ADEQUATELY DEMONSTRATE UNITED STATES RESOLVE TO ASSERT OUR LEGITIMATE RIGHTS IN THESE INTERNATIONAL WATERS.

Admiral Moorer recommended moving the DESOTO patrol 90 miles to the north to draw the North Vietnamese Navy away from the OPLAN 34A MAROPS area and also to eliminate any chance of the DESOTO patrol destroyers interfering with 34A operations. Moorer’s suggestion to move the patrol track was unnecessary, however, since Seventh Fleet commander Vice Admiral Roy L. Johnson, following a MACV SOG recommendation, had issued an order to shift the DESOTO track north the day before.

At approximately 10:30 that morning, five hours after Captain Herrick’s warning, the Maddox and the C Turner Joy acquired a radar contact paralleling the path of the two destroyers. The carrier Ticonderoga reported its aircraft ready for immediate launch.

Tension continued to run high through midday and into the afternoon, although no one reported any provocative activity. Buried in the mass of data surrounding events in the Gulf of Tonkin that day was a little-noticed report from the Maddox at around 3:00 p.m. of a “material deficiency” in her sonar. The
patrol ended at 5:30 p.m., and the two destroyers proceeded to the middle of the Gulf, from where they would resume their patrol in the morning.

Toward the end of daylight, North Vietnamese naval communications alerted two Swatow-class PGMs to get ready for military operations on the night of August 4. Swatows are small patrol boats that do not carry torpedoes. They are armed with relatively light 37mm guns and for this reason do not normally challenge destroyers. The DESOTO units, then from 16 to 20 miles off the North Vietnamese coastline, were advised of a possible attack and headed for the mouth of the gulf “at best speed.”

Evening fell over a rough sea with two-to-three-foot chops. Maddox Radarman James A. Stankevitz described it as “the darkest night I’d ever seen at sea.”

The Turner Joy was at DEFCON 2, half her crew at battle stations in helmets and flak jackets. Tension filled the air, almost crackling like static electricity. Many of the Joy’s crew not at battle stations were watching a movie. They would never get to see the last reel.

Ensign John M. Leeman took the bridge watch at 8:00 p.m. Minutes later he spotted the first sign of trouble. “I saw, with my own eyes, five or more high-speed contacts approaching on the surface-search radar.”

At the time both the Maddox and Turner Joy were close to the center of the Gulf, approximately 65 miles from the nearest land. Radar on both destroyers had the same contacts—30 miles away. Radar normally reaches only as far as the horizon—20 to 25 miles—but ionospheric layers can cause a phenomenon known as ducting, in which signals travel great distances and can give false or misleading returns to an unwary radar operator.

“They kept a constant distance,” said Radarman James H. Weinand, watch supervisor in the Maddox radar room. “We’d maneuver and they’d maneuver.”

At this point, Captain Herrick took a look at the surface search radar and saw at least five contacts 36 miles to the northeast. He said they were probably torpedo boats.

At 8:36 the Maddox reported new radar contact with two unidentified surface vessels and three unidentified aircraft.

Herrick radioed for air support.

Seven planes catapulted into the night sky from the flight deck of the carrier Ticonderoga, some 200 miles away in the South China Sea. More planes shot into the air from the carrier Constellation, then en route to Southeast Asian waters from Hong Kong.

Then the Maddox reported that the unidentified aircraft had disappeared from her radar screen and that the surface vessels were keeping their distance.

At 9:30 the Maddox reported more unidentified vessels on radar, closing rapidly from the west and south at speeds in excess of 40 knots. The Maddox described their intentions as hostile.

As far as Turner Joy skipper Commander Robert C. Barnhart Jr. was concerned, the blips on his radar screen indicated a torpedo run. “Ships don’t approach somebody like that—at high speed—unless they mean trouble.”

When the blips registered 8000 yards, Captain Herrick ordered the Maddox to fire star shells in an unsuccessful attempt to pierce the blackness. At 4000 yards, Captain Barnhart gave the order to commence firing, and the Turner Joy’s guns opened up.

Barnhart would later recall, “Things happened so fast that I don’t know what the Maddox was doing other than the fact that she wasn’t firing at some of the contacts that we were.”

At one point during a night so pitchblack that neither ship could see the muzzle flashes of the other’s firing, attackers appeared to be approaching astern of the Turner Joy. Barnhart ordered depth charges dropped.

Curiously, the Maddox’s radar didn’t show the same blips as the radar on the Turner Joy. For the remainder of the incident the Maddox was unable to locate the enemy on its radar. Ensign Richard Corsette, who directed fire from the Maddox’s forward mounts, had an explanation. “I know from the way our radar was acting, my firm belief was that everything I locked onto was weather.” He ordered his guns fired once during the entire night—to clear them of ammunition.

Overhead, Navy jet pilot Commander Wesley McDonald was also trying to find something to shoot at. Relying on information relayed from the Turner Joy’s radar, McDonald swooped down low over the sea time after time. He never located a target.
UNCLASSIFIED

(U) Seaman Third Class David Mallow, manning the Maddox's sonar equipment, heard and saw hydrophone noises that he thought indicated a torpedo in the water. The Turner Joy got no torpedo hydrophone effects all night.

(U) Turner Joy gunnery officer Lieutenant (junior grade) John J. Barry spotted a radar return he thought was a boat closing at high speed, then he wasn’t so sure.

(U) "The Maddox at that point reported a torpedo in the water," said Barry. "The contact was approximately 4,000 yards out on our port quarter, possibly even closer. . . . Then, I personally spotted the torpedo. The first thing I did was grab the enlisted man next to me, Seaman Larry Litton, to confirm he saw it too. I wanted to make sure he saw it too. I didn’t even say, ‘Look at the torpedo.’ I asked him what he saw."

(U) According to Lieutenant Barry, the torpedo went skimming by just beneath the surface, like a thin pencil line visible in the fluorescent water.

(U) Litton estimated the torpedo’s distance from the destroyer at no more than 60 yards and noted with a shudder that it was “the closest I ever want to see one.”

(U) Aboard the Maddox, Seaman Mallow continued to call out torpedo warnings from his sonar gear. His calls resulted in both destroyers taking numerous violent evasive actions.

(U) Sealed off and isolated inside gun mount 53, Norman Leavitt complained, “They would tell us ‘torpedo in the water’ and then they never would tell us where the torpedo went.”

(U) Gun Pointer Felix Nerio added, “They passed the word every couple of minutes to brace yourself, torpedoes coming, and I kept grabbing the gun. I grabbed it so hard the stone flew out of my ring.” The stone landed on the gun mount deck next to Leavitt. Nerio squeezed the gun so hard that he crushed the ring so far out of shape that it later had to be cut from his finger.

(U) As the sonar reports began to multiply far beyond reason, doubts crept into the minds of officers on the Maddox’s bridge. The Maddox reported 22 enemy torpedoes by sonar; the C Turner Joy failed to detect even one. North Vietnamese patrol boats carried two torpedoes each, with no provision to reload at sea. Since no one suggested that the destroyers had been attacked by anything close to 11 patrol boats, most of the sonar reports were obviously erroneous. Someone finally realized that each time the ship made a sharp turn, a torpedo report followed.

(U) “What we were doing, we were getting our own screwbeats very loud,” admitted Maddox captain Commander Herbert L. Ogier. In his opinion, the first or second torpedo reports were probably legitimate, but the others were “the result of our maneuvering. Evaluating everything that was going on, I was becoming less and less convinced that somebody was there.”

(U) The situation was no calmer aboard the Turner Joy.

(U) The high-speed maneuvering and the thudding vibrations from the guns were causing problems for Radioman Gary Stephens. “I had to watch one of my transmitters close because it had a tendency to switch off and I had to hit the reset button. Whenever we’d fire it would shake the ship pretty bad and had a tendency to knock us off the air.”

(U) For more than an hour the destroyers relayed messages saying they had avoided a number of torpedoes, that they had been under repeated attack, and that they had sunk two of the attacking craft. One might argue that confusion about what was happening could be attributed to the “heat of battle,” but when events were later sorted out, the explanations seemed to be more complex.

(U) A flash message saying the destroyers were actually engaged hit the National Military Command Center in the Pentagon at 11:00 on the morning of August 4. From that moment on, high-level government attention remained locked on the unfolding drama thousands of miles away in the Gulf of Tonkin. Ten minutes after the word reached Washington, Secretary McNamara convened a meeting with the Joint Chiefs in his third-floor conference room on the E Ring to discuss possibilities for retaliation. Secretary of State Dean Rusk and McGeorge Bundy rushed over to join them. At 11:35 the two cabinet secretaries and Bundy left the Pentagon for a previously scheduled National Security Council meeting at the White House, where they would recommend reprisal strikes to the president.

(U) Within the hour, Admiral Sharp telephoned from CINCPAC headquarters in Hawaii to suggest bombing the North Vietnamese coastal bases for the torpedo boats. The JCS staff began selecting target options from a 94-target list that had been drawn up earlier in the year.
(U) While all this was going on in the noontime brightness of Washington, facts were becoming more and more confused in the middle of the night in the Gulf of Tonkin. The two destroyers reported that, even though many torpedoes had been fired at them, they had taken no hits nor had they suffered any casualties. Aircraft from the Ticonderoga were said to be illuminating the area and attacking the enemy surface craft. Two enemy vessels were reported sunk and the C Turner Joy was said to have further reported being fired upon by automatic weapons while being painted by searchlights.

(U) The automatic weapons fire was later discovered to be the anti-aircraft barrage fired by the destroyers at what their radar erroneously represented as enemy aircraft.

(U) The Turner Joy then reported that one vessel was probably sunk. Another report said that a DRV PT boat may have sunk one of its own companions in the conflict.

(U) Soon after the destroyers quit firing into the night, Captain Herrick cabled CINCPAC:

JOY ALSO REPORTS NO ACTUAL VISUAL SIGHTINGS OR WAKE OF ENEMY... ENTIRE ACTION LEAVES MANY DOUBTS EXCEPT FOR APPARENT ATTEMPT AT AMBUSH AT BEGINNING.

(U) Captain Herrick's reservations about what had actually happened were then unknown to the Washington planners. At 1:35 in the afternoon the director of the Joint Staff telephoned McNamara to say that the JCS had unanimously agreed on the targets. At a second NSC meeting that same afternoon, President Johnson ordered the reprisals, deciding to seek the congressional resolution immediately. At 3:00 McNamara returned to the Pentagon to approve the details of the reprisal air strikes. The Joint Chiefs of Staff prepared an execution order.

(U) At 3:35 on the morning of August 5—midafternoon of August 4 in Washington—Captain Herrick cabled these words of caution to CINCPAC:

REVIEW OF ACTION MAKES MANY RECORDED CONTACTS AND TORPEDOES FIRED APPEAR DOUBTFUL. FREAK WEATHER EFFECTS AND OVEREAGER SONARMEN MAY HAVE ACCOUNTED FOR MANY REPORTS. NO ACTUAL VISUAL SIGHTINGS BY MADDOX. SUGGEST COMPLETE EVALUATION BEFORE ANY FURTHER ACTIONS.

(U) Twenty-five minutes later, with Herrick's message in hand, Sharp telephoned McNamara to say that there was now confusion over whether an attack on the destroyers had actually taken place. McNamara told Sharp that the execution order would remain in effect, but that Sharp was to check and make certain that an attack had really occurred before actually launching the planes.

(U) At 4:49 p.m., although Admiral Sharp had not called back with confirmation of the attack on the American destroyers, the formal execution order for the reprisals was sent to CINCPAC. The order specified that the carriers were to launch their planes within about two and a half hours.

(U) At 5:00 a.m. in the Tonkin Gulf, Herrick reported the original ambush "bona fide" on the basis of "positive visual sightings of cockpit lights or similar lights passing near the Maddox," and because the "C Turner Joy reported two torpedoes passed near her." Sharp phoned Herrick's latest conclusion to McNamara 23 minutes later. Sharp then asked the Maddox if she could "confirm absolutely" that she had been attacked and whether she could confirm the sinking of patrol boats. The clocks in Washington said 6:00 p.m. when Sharp called McNamara for the second time within an hour to report the attack genuine.

(U) Following the second call from Sharp, and after telling the admiral that we do not want to retaliate unless we are "damned sure what happened," McNamara was confident he was on solid ground. This is the point in the story where SIGINT played a pivotal role. As McNamara later testified, he had examined "all of the evidence, particularly the communications intelligence," and at 6:07 p.m. released the executive order calling for retaliatory air strikes against North Vietnam. Certainly none of the information coming out of CINCPAC either before or in the hours following the execution order was sufficiently persuasive to support such a momentous decision.
Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Congress approve and support the determination of the President, as Commander in Chief, to take all necessary measures to repel any armed attack against the forces of the United States and to prevent further aggression.

Sec. 2. The United States regards as vital to its national interest and to world peace the maintenance of international peace and security in Southeast Asia. Consonant with the Constitution of the United States and the Charter of the United Nations and in accordance with its obligations under the Southeast Asia Collective Defense Treaty, the United States is, therefore, prepared, as the President determines, to take all necessary steps, including the use of armed force, to assist any member or protocol state of the Southeast Asia Collective Defense Treaty requesting assistance in defense of its freedom.
Chapter Seven

SIGINT SUPPORT TO U.S. COMBAT OPERATIONS
CHAPTER SEVEN
SIGINT SUPPORT TO UNITED STATES COMBAT OPERATIONS IN VIETNAM

(U) From the military escalation that began with the Gulf of Tonkin Resolution until the end of the Vietnam war in the spring of 1975, SIGINT was constantly in the forefront of decision making, from the tactical commander in the field all the way to the Oval Office. The exploits of individuals and the key events in which communications intelligence played a major role in that decade would fill a library. It is a safe statement to say that SIGINT probably never played a more significant part in day-to-day combat decisions than it did in Vietnam. SIGINT was a major factor in nearly all United States strategic and tactical planning throughout the twelve long years of American military involvement in Southeast Asia. The stories that appear here have been selected primarily on the basis of their availability. The exclusion of all the others in no way diminishes their importance to history.

SIGINT Springs the Trap on a Viet Cong Regiment

(U) In 1965, with American support for the Vietnam war at its peak in the wake of the Gulf of Tonkin incident and the congressional resolution that followed, North Vietnam decided on an all-out effort to win the war quickly, before the massive American military buildup became effective. In January, a six-day Viet Cong assault in the Binh Gia area ended in defeat for four South Vietnamese battalions. The South Vietnamese suffered some 100 killed, 200 wounded and another 100 missing, and for the Americans, the battle produced the heaviest casualties of any single engagement of the war up to that time. In the weeks that followed, the Viet Cong overran a South Vietnamese outpost in Kien Giang province, killing 21 defenders. In May, Viet Cong in regimental strength struck Song Be in Phuoc Long province, killing five United States advisers and inflicting heavy losses on South Vietnamese troops in the area. In June five Viet Cong battalions mauled South Vietnamese forces near Quang Ngai and later overran the district capital of Dong Xoai. At the end of June the Viet Cong staged a predawn raid on the air base at Danang. By early summer the enemy was able to consolidate his control over large areas of South Vietnam. United States military fortunes were at their nadir, and for a time the North Vietnamese goal of a quick victory on the battlefield seemed within reach.

SEC For the United States to achieve any degree of success on the battlefield, the field commanders needed the best intelligence information available. The very nature of the conflict in Southeast Asia—a war without fronts—made U.S. commanders dependent on intelligence information. The enemy kept his forces hidden and dispersed, ordinarily in sanctuaries in Cambodia and Laos or in secluded base areas within South Vietnam where he could elude pursuit. He could launch attacks against American and South Vietnamese forces at a time and place of his choosing, then vanish again. His chief characteristics were his flexibility and mobility, characteristics that made him a formidable adversary. So it was with intense interest that American military commanders watched intelligence indications of the First Viet Cong Regiment's movement into northeastern Quang Ngai province in late July. Intelligence officers sifted rumors and agent reports of a forthcoming attack against Chu Lai. In early August, the most recent intelligence placed the main body of the 1st Viet Cong regiment 30 to 40 miles away from the Marine base there.

(U) Then came a surprise.
On August 15, NSA analysts were plotting radio direction-finding information on a map in their office at Tan Son Nhut air base when they discovered that the 1st VC regiment was now on the Van Tuong Peninsula—only a few miles from Chu Lai. The more they studied their information the more they became convinced that the enemy regiment was poised for attack. Then came more DF bearings. Advance elements of the enemy regiment had pushed to within a few kilometers of the Marines’ perimeter.

Realizing that forward elements of the Viet Cong regiment were in a potentially vulnerable position, they hurriedly briefed Air Force Colonel, the senior NSA officer in Vietnam, saw that the Marines had a rare opportunity to trap a large enemy force but they would have to move fast. The 3rd Radio Research Unit, half a mile away from the NSA office, had the SIGINT responsibility for issuing product on Viet Cong military activity, so jumped into staff car and sped to 3rd RRU headquarters where they went over the entire picture with 3rd RRU commander Colonel and his Operations Officer.

The 3rd RRU officers hesitated. They wanted more data, confirmation of the direction-finding information, objected. Time was too short, balked. fumed. continued to resist. Finally, threatened: either the 3rd RRU would release a report with the location of the Viet Cong regiment, or would do it himself (although he had no reporting mission). With that ultimatum hanging in the air, stormed out of the whitewashed stucco building and climbed into the back seat of the Ford sedan. "Xoong," he said to the Vietnamese chauffeur in a tone that barely concealed his simmering anger, "let’s go back to the office."

As soon as returned to his own building, he called an NSA analyst on the MACV intelligence staff, giving the location of the 1st Viet Cong regiment and emphasizing the significance of the information. Beyond that, could do little except hope that the 3rd RRU would go ahead and release the SIGINT while the U. S. command had time to act on it.

Moments later one of the old Kleinschmidt teletypewriters next to office began to clatter. The 3rd RRU’s report was going out to the customers. Meanwhile, at MACV headquarters on Pasteur street in downtown Saigon, was briefing General Westmoreland’s intelligence chief, Major General Joseph McChristian.

The next morning McChristian and Lieutenant General Lewis Walt, the senior Marine commander in South Vietnam, drew heavily on SIGINT as they put together Operation STARLIGHT—a plan to back the First Viet Cong Regiment up against the South China sea and annihilate it.

Just before dawn on August 18, with advance elements of the First Viet Cong regiment poised within a few kilometers of Chu Lai, the Marines struck. At 6:15 a.m., they unleashed a withering artillery barrage. Fifteen minutes later two companies from the 3rd Marine regiment stormed ashore just to the south of the enemy force. Meanwhile, Echo, George and Hotel Companies of the 4th Marine regiment’s 2nd battalion poured out of helicopters from the carrier Iwo Jima onto the three landing zones on the enemy’s west flank. At the same time additional Marine forces moved into blocking positions north of the First Viet Cong Regiment’s emplacements in the Van Tuong Village complex.

Two squadrons of Phantom II jets and five squadrons of Skyhawks streaked out of the gray morning sky and pounded enemy positions from the air. While Marine reinforcements waited offshore aboard the attack transport Talladega and the helicopter carrier Iwo Jima, salvo after salvo from the Missile Light Cruiser Galveston tore up enemy positions.

The 2nd battalion ran into heavy opposition from the trapped Viet Cong regiment, and at one point it appeared that Hotel company would be overrun by a larger enemy force. But by afternoon two companies of the 3d Battalion were helicoptered into the area to link up with the embattled 2nd Battalion.

At 6:40 p.m. the Marines closed the trap.

The following morning, Marine units began their sweep to the sea, mopping up elements of the 1st VC regiment as they went. When the fighting slackened on August 20, the enemy regiment had been decimated, leaving behind nearly one thousand dead, well over half their original force.

STARLIGHT, the first major United States troop engagement of the Vietnam war, dashed the enemy’s hope for victory at Chu Lai and a quick end to the war. The generals who planned and executed it
called the NSA support indispensable. General McChristian referred to SIGINT as "the confirming catalyst which led to our decision to act." General Walt termed the SIGINT "a clinching factor in the decision to launch [STARLIGHT]."

The Odyssey of ALUMNUS

(U) What does the enemy know, and how does he know it?

(TSC) Answers to those pivotal counterintelligence questions remained elusive for years, until the late summer of 1965. Then, as the monsoon season was drawing to a close, NSA released a barrage of SIGINT product based on a lengthy interrogation report. The material sent shudders through MACV headquarters in Saigon. To the surprise of many in the American command, the North Vietnamese had an extensive and sophisticated intelligence operation in the South.

(TSC) The events leading to the release of that SIGINT began nearly a year earlier.

(U) In early July he arrived at the 17th parallel, the line that had partitioned the country since the end of the Franco-Viet Minh war a decade before. The ragged outline of Dent du Tigre, the peak the Americans called Tigertooth Mountain, was barely visible in the distance. Le Bach Dang waited for the dark of the moon and, during a torrential monsoon downpour, slipped through the Demilitarized Zone separating the two Vietnams. The next morning he made his way across the rice paddies to National Route 1, Bernard Fall's Street Without Joy, and hiked to the city of Hue where he boarded a bus for Danang.
In the spring of 1965, a routine police procedure in Danang triggered a sequence of events that brought Le Bach Dang to the attention of a long list of Americans, including Air Force Colonel [Redacted], the senior NSA officer in South Vietnam, NSAPAC chief Brigadier General John Morrison, B-6 Group chief B. K. Buffham, and ultimately to General William Westmoreland, Commander of United States forces in Vietnam.

(U) It started with a South Vietnamese police check of identity cards, a common security practice familiar to everyone in South Vietnam and something for which Le Bach Dang had been well prepared. When a white-uniformed policeman entered the bicycle shop on Vuong street, Le Bach Dang opened his wallet and handed over his identity card. The officer chatted briefly with Le about the weather, returned the identity card and left. Two weeks later, on the afternoon of July 7, fate brought the same policeman to Le Bach Dang's door again, once more on a routine check. They went through the same ritual, except that Le made a mistake that led to his undoing.

(U) Back at the stationhouse, the policeman was bothered by what he had seen. The card Le Bach Dang had shown him that afternoon was not the one he had produced two weeks earlier. The policeman's suspicions grew. Finally, the policeman climbed into his Jeep, drove back to the bicycle shop and arrested Le Bach Dang, charging him with forging government identity cards. A search turned up papers identifying the man in the Phu My bicycle shop on Vuong street not only as Le Bach Dang but also as Le Dang Giang, Tran Thanh Hung, Huynh Ton and Le Phong.

(C) There the matter lay for over a week, and had it not been for Le Bach Dang himself, his role as an intelligence agent might never have come to light. But after sitting in a tiny, airless cell for eight stifling days and sleepless nights, Le, in his own words, "decided to confess all." He told a surprised Danang policeman that he was in reality a "radio spy."

(C) Skeptical, the policeman looked at him and scoffed, "We didn't see any radio in your shop."

(C) Six Danang policemen piled into a Jeep, drove to the Thong Nhut street address and pounded up the stairs. They found no radio and returned to the police station an hour later.

(C) Worried that he might end up in prison on a forgery conviction, Le drew the police a sketch of the secret compartment behind the panel in the kitchen drawer. Although they still weren't convinced, the police made another search of Le's apartment. This time they found the radio. They also came back with the eight rolls of microfilm containing the one-time-pads and Le Bach Dang's radio schedule.

(U) The discovery moved Le Bach Dang to stage center.
Two days later, with Le Bach Dang's bona fides established, the CIA's Saigon station chief told Colonel [redacted] about the North Vietnamese "radio spy."

A snappy-eyed, dark-haired, ex-fighter pilot with years of cryptologic experience in both USAFSS and NSA, raced back from the embassy to his own office at the airport and directed his communicator to establish an on-line teletype link with NSA. In response to [redacted] insistence that he speak to someone senior—it was late at night back in Maryland—the B Group watch officer located [redacted] then chief of B6, at a social function at the Fort Meade officers club.

Details were still sketchy, [redacted] reported to [redacted] the agent's radio schedule and what appeared to be pages of one-time-pad. The schedule was passed to NSA headquarters over the teletype, and while [redacted] and his staff waited in Saigon with their fingers crossed, analysts at NSA headquarters began feverishly combing through drawers of old traffic in their search for matching intercept.

Everything shifted into high gear.

The Special Branch of the South Vietnamese National Police kept the Phu My bicycle shop under surveillance, and on 16 July, in walked Le's case officer, Quach Van Hai.

Once the interrogation was over, the South Vietnamese imprisoned Le Bach Dang on Con Son island off the South Vietnamese coast. They brought him back to Saigon twice to answer new questions raised by NSA analysts who continued to study his materials. Le's presence was requested at a third follow-up session, and he was put aboard a South Vietnamese helicopter on Con Son island for the flight to Saigon. Somewhere over the South China sea the long odyssey ended in a moment of senseless violence, as Le Bach Dang's guard hurled him out of the aircraft. No more is known of the circumstances.
Support to Air Operations over North Vietnam and Laos

(U) The roots of the air war over North Vietnam and Laos go back to the days immediately after the Gulf of Tonkin incident, and particularly to a cable from Ambassador Maxwell Taylor in Saigon to the State Department on August 18, 1964, which said in part:

In preparing our reply, we have found it simpler to produce a new paper which undertakes to state the problem in South Vietnam as we see it in two possible forms and then to provide course of action responding to each statement of the problem.

Underlying our analysis is the apparent assumption of Deptel 439 (which we believe is correct) that the present in-country pacification plan is not enough in itself to maintain national morale or to offer reasonable hope of eventual success. Something must be added in the coming months.

Assuming that ... Hanoi has failed to perform favorably, it will be time to embark on the final phase of course of action A, a carefully orchestrated bombing attack on NVN directed primarily at infiltration and other military targets. At some point prior thereto it may be desirable to open direct communications with Hanoi if this has not been done before. With all preparations made, political and military, the bombing program would begin, using U. S. reconnaissance planes, VNAF/Farmgate aircraft against those targets which could be attacked safely in spite of the presence of the MIG's and additional U. S. combat aircraft if necessary for the effective execution of the bombing programs.

Hanoi, of course, did not "perform favorably" and the United States embarked on Ambassador Taylor's "carefully orchestrated bombing attack." As the air war in the north escalated, so did the SIGINT support. By 1966 NSA had 20 people in its SIGINT Support Group Detachment furnishing real-time tactical support to the Commanding General of the Seventh Air Force. Direct communications with SIGINT sites in South Vietnam and Thailand enabled the SSG Det at the Seventh Air Force to supply air war commanders with North Vietnamese air order of battle, MIG pilots' tactics and the locations of surface-to-air missile and conventional antiaircraft artillery sites. Moreover, the SIGINT unit funneled reflections of United States Air Force air operations over North Vietnam and Laos into Seventh Air Force headquarters within three minutes of occurrence. This time-sensitive information was relayed to flight commanders in the air for immediate tactical use.

The detachment also got itself involved in a few controversial matters within the U. S. community, like denying a Seventh Air Force pilot his claim to a fifth MIG shootdown in 1967. A confirmed fifth kill would have made the pilot the first American ace in Vietnam. NSA certainly had no axe to grind as far as the pilot was concerned, but fact were facts, and according to SIGINT, all the MIGs in the flight in question landed safely. The pilot finished his tour with only four kills to his credit. No ace.

In mid-1967 the SSG Det was able to head off a potentially disastrous reaction after a lone F4C on a routine ferry flight from Clark Air Base in the Philippines to Danang, South Vietnam, was attacked and shot down by Chinese MIGs. The Seventh Air Force command was convinced that the Chinese had shot down an unarmed American aircraft in an unprovoked attack over international waters, insisting the F4C had skirted Hainan island while inbound for Danang. Available operational evidence quickly led to speculation that the Chinese had decided to take an active role in the Vietnam conflict, adding a new and ominous dimension to the air war.

Given the seriousness of the incident the Seventh Air Force demanded an in-depth analysis of the incident. The SSG Det obliged by coming up with incontrovertible evidence that the downed F4C had not "skirted" Hainan island but had overflown it.

The entire episode occurred well within Chinese air space.

(b) (1)
(b) (3)-50 USC 403
(b) (3)-18 USC 798
(b) (3)-P.L. 86-36
When the Seventh Fleet's Sea-Air Rescue units fished the two F4C pilots out of the water and debriefed them, their explanation confirmed the SIGINT story. Midway between the Philippines and Hainan island the F4C lost its navigational systems. Rather than return to the Clark Air Base, the pilots opted to continue to Danang. They homed in on a radio beacon they thought was Danang and followed it. Moments after crossing the coastline of Hainan island they realized to their horror that they were not over Vietnam. As soon as they discovered their error, they turned due south, but by then it was too late.

The salient point is, of course, that an international incident that could have had the most profound consequences was contained by the use of SIGINT in the operational environment.

OPSEC, Drones and Purple Dragons

Operations security, or OPSEC, is a discipline whose purpose is to achieve and maintain surprise in military operations. NSA became deeply immersed in OPSEC activity in Vietnam when evidence of North Vietnamese foreknowledge of U.S. air operations could no longer be denied. By 1966, advance warning of both ARC LIGHT (B-52 raids) and ROLLING THUNDER (tactical aircraft strikes) enabled the North Vietnamese to take actions that seriously reduced the effectiveness of U.S. military missions.

The question was, how were they doing it?

To find out, the Joint Chiefs of Staff assembled a team of experts from the Defense Intelligence Agency, the military services and the National Security Agency. Dubbed Purple Dragons, the JCS OPSEC team was based at CINCPAC and given a free hand to investigate all military operations in the Pacific theater. The JCS included NSA on the Purple Dragon OPSEC team for two reasons: first because SIGINT had provided some of the most convincing evidence of enemy foreknowledge, and second, because communications insecurities were prime candidates for sources of early warning information.

Although the Purple Dragons enjoyed repeated success in plugging OPSEC leaks during the Vietnam war, their experiences with the Air Force's drone reconnaissance program provide a dramatic illustration of the vulnerability of U.S. communications practices and the willingness of a clever enemy to exploit them. From the early days of the air war, the U.S. Air Force used unmanned drone aircraft to overfly North Vietnam to collect intelligence and then return to the south.

American commanders were deeply concerned, not only over the loss of intelligence and the cost of the drones, but because they were convinced that the North Vietnamese antiaircraft units could not have enjoyed such continuing success without accurate advance knowledge on the drones' arrival time and altitude.

The Purple Dragon team flew to South Vietnam and examined the entire drone operation from planning to recovery, starting with Bien Hoa air base in the southern part of South Vietnam. Mother ships staging out of Bien Hoa carried the drones aloft and released them over the northern part of the country. Once the drones completed their orbit over North Vietnam, recovery aircraft based at Danang flew out to recover them.

The Air Force replaced their susceptible operations code with secure KW-26 equipment. To the surprise of no one on the Purple Dragon team, the very next day the drone loss rate plummeted, and stayed down for quite a while.

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SECRET SPOKE

(U) Back came the Purple Dragons.

The Air Force, true believers in the Purple Dragons by now, changed the callsigns and losses fell, for another few weeks.

The ultimate solution was to install NESTOR communications security equipment aboard the mother ships and the recovery aircraft. Once that was done, drone losses to enemy action fell off to one or two a year, compared to two or three a week in the pre-Purple Dragon days.

**Comrade Toon Flies the Unfriendly Skies**

(U) One reason SIGINT has become such a respected source of intelligence information is its flawless impartiality. The SIGINT system reports what it hears without favoritism which, on occasion, has made the message a little bitter to swallow.

The story of a North Vietnamese MIG-21 pilot named Toon is but one of many events in which SIGINT has presented a hostile target in a light seldom seen by other positive intelligence collectors. During Toon's heyday as a fighter pilot, the SIGINT analysts who kept track of the air war saw him as something of an airborne outlaw in the image of a Wild West gunslinger. Every time the NSA analysts found Toon in the air, they tipped off the Seventh Air Force and the U. S. planes took up the chase like some sheriff's posse of old.

NSA's ability to identify Toon and his comrades in radio traffic and alert the Seventh Air Force in time for a pursuit effort came only after months of hard work. The key to that kind of rapid exploitation came from painstaking analysis of North Vietnamese air-to-ground communications in the 1960s that eventually unlocked the MIG pilots' callsign system. After that breakthrough NSA could identify each North Vietnamese pilot by his own unique callsign suffix known as the Pilot Billet Suffix, or PBS. Over time, the NSA SIGINT Support Group attached to the Seventh Air Force was actually able to match the names of many North Vietnamese pilots with their PBSs. The disembodied voices in the ether took on individual personality traits. SIGINT analysts became familiar with many of the unseen North Vietnamese flyers and built case histories on individual pilots, their ranks, organizations, number of missions flown, even their combat records. That meticulous research earned unwitting distinction for the Phuc Yen-based pilot named Toon, who became the first SIGINT-confirmed enemy ace of the Vietnam conflict.

Toon's record of five shootdowns labeled him a serious threat to American pilots, and Seventh Air Force commander Lieutenant General William W. Momyer became obsessed with the idea of getting rid of him. In addition to shooting down American fighter planes, Toon was also successful at disrupting B-52 raids—another reason Momyer wanted him out of the air. In an effort to hasten Toon's destruction, Momyer demanded a SIGINT surveillance of the enemy ace. The hunt soon evolved into a deadly game of Snoopy-versus-the-Red-Baron, with the Seventh Air Force boss in pursuit of the elusive Comrade Toon.

NSA did everything it could to make the skies unfriendly for Comrade Toon. The SIGINT detachment alerted Momyer's headquarters whenever Toon was scheduled to fly a mission, and Momyer would send his planes aloft to hunt down the Red Baron of North Vietnam. But Comrade Toon proved to be a formidable opponent.

One dark night, Toon buckled himself into the cockpit of his MIG-21, raced down the runway at Phuc Yen and headed for the dusty, pockmarked airstrip at Vinh, just north of the Demilitarized Zone. SIGINT promptly reported Toon's presence, and Momyer sent his planes screaming into the skies to the north to engage the enemy ace. But by the time the American pilots arrived over Vinh, Comrade Toon had already topped off his tanks and was barnstorming his way through the nighttime skies in the direction of Laos.

Toon soon caught up with his prey.

Spread out before him was a formation of B-52s on the way to a target. Toon maneuvered his MIG into position behind the giant bombers, took aim and launched a pair of air-to-air missiles into the formation.
One missile failed to track and went skittering off in the darkness, the other lodged in the wing of a B-52 but didn't detonate. As Toon no doubt foresaw, the American crews followed their standard procedure of dropping their ordnance when attacked, letting their deadly payloads fall harmlessly on the empty Laotian countryside. Toon may not have bagged a B-52, but he did force the flight to abandon its intended target.

Having singlehandedly wrecked a strategic bombing mission, Toon was now faced with the task of making an exit without drawing the Americans' fire. They certainly knew he was there. But the SIGINT record showed that Toon had been in these situations before and that he was a most resourceful pilot. He hugged the B-52s' tails so closely that their radars couldn't distinguish the reflected image of Toon's plane from their own. Toon ignored his ground controller's order to kick in the afterburner on his Tumansky R-11 turbojet and run for cover. He knew the afterburner's bright orange flame would be a beacon for Momyer's marksmen. The wily ace simply reduced his speed and altitude and fell away from the departing bombers, melting into the protective darkness.

SIGINT continued to follow the career of Comrade Toon and to report his presence to Momyer, but the Seventh Air Force was never able to catch him. When the air war was at last winding down, Comrade Toon, decorated and promoted, was a forward ground controller, directing MIG reactions to U.S. air operations.
Chapter Eight

THE DECADE OF THE SIXTIES

FUEVARA

U-2 FLIGHTS

USS PUEBLO
CHAPTER EIGHT

THE DECADE OF THE SIXTIES

Milestones

(U) The nineteen-sixties saw the National Security Agency continue to expand in both mission and physical plant. The three-story building that had housed most of the Agency since its move to Fort Meade in the mid-fifties was too small to accommodate the people and equipment that were the heart of American cryptology in the nineteen-sixties.

(U) On June 24, 1963, the director ceremoniously put spade to earth in front of the old Gatehouse One and broke ground for Annex I, a $12,000 square-foot building that became the new Headquarters Building when it was officially dedicated on June 25, 1966. The $12 million, nine-story building boasted 16,000 light fixtures and a cooling tower on the roof that would handle 7,340 gallons of water per minute or approximately 11 million gallons in a 24-hour period.

(U) In mid-decade, the Agency expanded its training program by creating the National Cryptologic School and an Intern Program "to provide the quantity and quality of professional personnel required to perform effectively the professional work functions of the Agency."

(U) Operations Building # 3 was completed in June 1968 and, in a formal dedication ceremony on November 26, became the new home of the Communications Security Organization, which had operated out of the Naval Security Station on Nebraska avenue in Washington since 1950.

(U) The Agency needed still more space, but a congressional moratorium on new construction forced the Department of Defense to direct NSA to lease commercial office buildings near Baltimore's Friendship International airport—now Baltimore-Washington International. The Agency began moving into the three buildings known as FANX I, II and III in 1968.

(U) As NSA grew, it acquired an appreciation of its own history and the people who had made so many unselfish contributions to the evolution of American cryptology. Early in 1965 the Agency obtained the approval of the Fort Meade Post Memorialization Board to rename the roads around NSA headquarters in honor of deceased distinguished cryptologists. Canine Road was named for NSA's first director, but the origins of the others may be less well known. North road, running west to east past Gatehouse 2, became Wray Road, for Dr. William D. Wray who came to the Navy Department as a mathematician in early 1942 and remained in the field of cryptology until his death in 1962 at the age of 52. South road, running east to west past Gatehouse 4, was named for Henry J. Herczog, who served as an Army Signal Corps officer from February 1943 until June 1946, when he joined the Signal Security Agency as a civilian. He served NSA with great distinction until his premature death at the age of 40 on 4 September 1960. East road, running north to south past Gatehouse 3, was renamed in memory of Colonel Harry E. Towler, vice chief of staff of the Air Force Security Service from 1950 to 1953, commander of the 6950th Security Group at Chicksands Priory, England and chief of AFSSFM/GENS-3 in 1956. West road, running north and south past the old Gatehouse I was renamed in honor of Howard T. Engstrom, a Navy captain in World War II, later Deputy Director of Research and Development and then Deputy Director of NSA. On February 17, 1960, Howard Engstrom was awarded the first NSA Exceptional Civilian Service Medal. Dennis road loop, an east-west road connecting with Dennis road at two points, was named for Rear Admiral Jefferson R. Dennis, NSA Director of Production in 1957 and 1958.

The Last Flight of U-2 Number 360

(U) Of all the international incidents in which SIGINT played a behind-the-scenes role in the nineteen-sixties, NSA was perhaps most successful in avoiding public association with the shootdown of the U-2 reconnaissance plane piloted by Francis Gary Powers.
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(U) Powers' ill-fated mission in May of 1960 was not the first time American flyers had clashed with the Soviets. The nineteen-fifties saw 22 incidents around the periphery of the communist countries, beginning with the downing of a Navy patrol bomber over the Baltic on April 8, 1950, and ending with an attack on another Navy patrol plane by a MIG fighter 85 miles east of Wonson, North Korea, on June 16, 1959.

(U) The U-2s, however, had managed to stay out of reach of Soviet interceptors, missiles and anti-aircraft guns. Ever since the first U-2 overflight of the Soviet Union on July 4, 1956, the high altitude photo reconnaissance program run by CIA under the cryptonym *Ihad* had been highly successful until it suddenly came a cropper on May, 1, 1960.

(5) The preparations for Powers' doomed flight began in late April at *Adana*, Turkey. In addition to the close-support team, composed of some three dozen CIA employees and tech reps, a four-man CIA communications team arrived from *Adana* to man the high-frequency radio link with Adana, Turkey. This link would be the operational umbilical cord tying the people on the ground to CIA headquarters.

(U) In the small hours of the morning of May 1, U-2 airframe Number 360 was rolled out of the hangar and positioned at the end of the runway, its stereoscopic cameras loaded with 11,954 feet of film, poised to record a 745-mile swath of Soviet territory. As dawn broke, the unmarked black aircraft's long, drooping wings and bullet-like fuselage became visible in the haze. It was the very picture of what a spy plane should look like.

(5) Takeoff was scheduled for 6:00 a.m. *Adana*, Powers, wearing a specially designed space suit and carrying a Colt Woodsman .22 pistol, waited in the air-conditioned van where the U-2 pilots were billeted.

(5) The White House, concerned that a security leak exposing the U-2 overflights of Soviet territory could jeopardize the upcoming May 16 summit conference between President Eisenhower and Soviet Chairman Khrushchev, informed CIA that the president would personally approve the takeoff. Eisenhower was expected to wait until the last minute to make his decision. When he did, the word would go from the Oval Office to CIA headquarters, from there to *Adana*, and on to high-frequency Morse.

(5) As the hands on the clock moved inexorably toward 6:00, the radio operators in the communications van waited and listened, feverishly searching the guard frequencies for the signal from Adana. Outside, the members of the close support team stood amid the shimmering heat waves now rippling up from the runway, riveted on the communications van as they waited for the go ahead.

(5) Somewhere around 6:00 the operators picked up faint CW on one of the guard frequencies. While it sounded like Adana's signal and the CIA operator's fist, the Morse characters made no sense. The operators continued their search and call procedure, not realizing that they were caught in a radio propagation transition period, when the night frequencies were failing and the day frequencies had not yet stabilized. For a brief period at that hour of the morning, the ionosphere would not support reliable communications between Adana and the CIA headquarters.

(5) As the 6:00 a.m. takeoff time passed, the radio operators were convinced that the signal they were hearing was coming from Adana, although they could detect nothing that resembled the formal enciphered mission approval message. They tried to focus on the individual Morse characters: Five letters that made no sense at all.

(5) The clock on the wall of the communications van was nearing 6:15 when one of the operators thought he noticed a slight break after the third character and then another after the first. Suddenly the message made sense. It became The Adana operator, unable to get through with the formal approval message because of poor ionospherics, elected to try some improvised radio shorthand, hoping his cohorts at would realize he was informing them that the president had approved the flight and was telling them it was.

(U) Moments later, the U-2's lacy white contrail faded in the sky over

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HANDLE VIA COMINT CHANNELS ONLY
Soviet radar picked up Power's U-2 as it crossed over the Soviet-Afghan border at 5:36 a.m. Moscow time, tracking the plane high above the cloud layers as it penetrated deeper and deeper into the Soviet heartland. Antiaircraft and fighter units along the presumed route were put on alert.

When Powers was about fifty miles south of Chelyabinsk, the clouds disappeared and he had a good view of the Urals to his left. He had just begun to relax when the U-2's autopilot malfunctioned, causing the aircraft to pitch nose-up. Powers disengaged the autopilot, retrimmed the aircraft and flew the plane manually for a few minutes. When he reengaged the autopilot, the plane flew fine for ten or fifteen minutes, but then the pitch controls went to the full nose-up position again. Powers repeated the procedure, this time leaving the autopilot disengaged.

Francis Gary Powers was faced with a crucial decision. He was now technically in an abort situation. Should he turn around and go back, or continue the flight? If he went on, he would have to fly the plane manually all the way to Sverdlovsk. Had the trouble occurred an hour earlier, his decision would have been automatic; he would have gone back. But now he was more than 1,300 miles inside the Soviet Union with the worst of the weather apparently behind him and excellent visibility ahead. He decided to keep on going. Sverdlovsk was in front of him, and this would be the first time a U-2 had flown over that area.

When Powers was about thirty miles southeast of Sverdlovsk, he spotted an airfield that wasn't on his map and marked it down. His route would take him directly over it.

Meanwhile, Soviet Major Voronov and his eight-man crew were lounging in the ready room of the Sverdlovsk antiaircraft base when the battle alarm sounded.

High overhead, Francis Gary Powers put his U-2 into a ninety-degree left turn and lined up on his next flight line, a course that would take him over the southwestern edge of the city of Sverdlovsk.

Unbeknown to Powers, the Kremlin had issued an order to fire on the U-2, and at 8:53 a.m. Major Voronov proceeded to carry out that order.

Powers came out of the turn and was recording the time, altitude, speed, exhaust-gas temperature, and engine-instrument readings on his flight log when he felt a dull thump. The next thing he knew, he was knocked back in his seat as the aircraft jerked forward. A huge orange flash filled the interior of the aircraft and lit up the sky around it.

In the cockpit of the plummeting U-2, Francis Gary Powers still wasn't fully aware of the gravity of his problem.

At CIA headquarters in Langley, Virginia, everyone waited with whitening knuckles for the Soviet reaction. A statement was prepared, ready for release.

A few hours later, Soviet party chief Nikita Khrushchev delivered the first word from the Soviet Union. Speaking with deep emotion, he said, "When our people were celebrating their most beloved holiday, another plane crossed the southern borders and, on quickly delivered orders from the highest authority in Moscow, was shot down." Khrushchev went on to say that the plane was on a mission of "aggressive provocation aimed at wrecking the summit conference".

The National Aeronautics and Space Administration then issued the statement that the CIA had prepared, saying the downed aircraft was a weather observation plane belonging to Lockheed and its pilot was a Lockheed employee named F. G. Powers.

What followed, of course, is pretty well known. The Soviet Union put parts of the downed aircraft on display in Moscow's Gorky Park and made every effort to draw maximum propaganda advantage from the episode. The summit conference became the first casualty. Congressional hearings exposed many aspects of the U-2 reconnaissance program.

The Soviets tried Francis Gary Powers and incarcerated him for six years in a Soviet prison before exchanging him for convicted Soviet spy, Colonel Rudolph Abel.

On the surface, the U-2 reconnaissance program might seem to have been too risky an undertaking, but the direct and indirect benefits to the United States compel a deeper assessment. One direct benefit of the program was the intelligence community's ability to shatter the bomber-gap myth of the early sixties through analysis of aerial photography. That incontrovertible evidence enabled President Kennedy to cancel the multimillion-dollar B-70 Valkyrie bomber project in 1961. In terms of indirect benefits, the program...
(U) Ernesto Che Guevara, born in Rosario, Argentina, in 1928, philosophical mentor of the Castro brothers in the Sierra Maestra mountains, bungler of the Cuban economy and once the idol of young Latin American ultraleftists, went to the well once too often when he tried his hand at fomenting revolution in General Rene Barrientos' Bolivia in the 1960s.

(U) Only later did the world learn that Che Guevara arrived in Bolivia in November 1966, along with Major Joaquin Rivera Nunez, Major Eliso Rodriguez and Captain Gustavo Machin, all Cuban military officers who had been prominent in the Cuban revolution and who had gone on to hold positions in Fidel Castro's government and the Cuban Communist party.

(U) Although one of the poorest countries in Latin America, Bolivia was far from ripe for Che's revolutionary program. General Rene Barrientos had taken over the Bolivian presidency in 1964, imposing a gradual process of conservative economic reform that led to the dissolution of most organized labor opposition and demobilization of all popular groups except the peasants. Barrientos maintained that the guerrillas had chosen Bolivia in an attempt to discredit the nation's development plans. "Castro Communism," he said, "does not believe that a country can develop and change itself from within while maintaining human dignity and individual sovereignty."

(U) In early April, using the lieutenant's directions, the First Battalion of the Bolivian Army's Fourth Division went on a four-day march deep into the Bolivian jungle. Near the southeastern Bolivian town of Nachabhuazu they came upon a heavily fortified, but abandoned, Castro-type guerrilla base.

(U) The camp contained a fully equipped field kitchen with an oven capable of baking bread for at least 100 men. Nearby were healthy vegetable gardens and a butcher shop where mules had been slaughtered. Further along the trail, under the dense jungle canopy, was a well-equipped field hospital. A hundred yards farther on was the dormitory area, with military-style latrines and crude showers made of mule skins. In the dormitory area the patrol found more than 50 homemade hand grenades filled with dynamite.

(U) Any lingering doubts that outside guerrillas were active in Bolivia vanished in face of the physical evidence, and on April 11 the United States sent a Special Forces A team from Panama into the Bolivian countryside.
numerous bandits and the confiscation of many weapons. These developments as well as the setback represented by the possible imminent confirmation of Che Guevara’s death . . . ."

(U) On September 11, President Barrientos declared publicly that his government could prove Che Guevara was in Bolivia and went on to announce that he was offering a 50,000-peso reward for the capture of the elusive Cuban revolutionary.

(U) When the Organization of American States opened its meeting in Washington on September 22, Bolivian Foreign Minister Walter Guevara Arze offered dramatic proof of what was happening in his country with a hundred slides, including a picture of Che Guevara mingling with Bolivian, Cuban and other guerrillas in the southeastern Bolivian jungle. In addition to the photographic evidence, Arze produced fingerprint and handwriting identification. When the presentation ended, little doubt existed in the minds of the OAS leaders that Che Guevara was leading the band of guerrillas in Bolivia that included Cubans, Peruvians and Argentinians, as well as Bolivians.

(U) President Johnson advised the visiting Latin leaders to use “resolute force” to combat subversion and sabotage being exported throughout the Western Hemisphere by Castro agents.

(U) Later that same day, General Alfredo Ovando Candia, commander of the Bolivian armed forces, announced at a news conference that the guerrilla force in the southeastern jungle was under heavy pressure from Bolivian Army patrols encircling the area. Ovando went on to say that his troops were pursuing a number of guerrilla units, adding that when the army found the main body of guerrillas, they would find “Ramón—Che Guevara’s jungle pseudonym.

Two weeks later, on October 8, Bolivian troops clashed with Che Guevara’s guerrilla forces near La Higuera, killing six of the insurgents, including three Cuban leaders. Che, bleeding from a single bullet wound in the right thigh, surrendered, saying that his seven-month guerrilla movement in Bolivia was a "fracaso"—a failure—and was executed, slowly, the following day by a submachine gun.

(U) On October 10 the Bolivian army high command officially confirmed that Ernesto Che Guevara had been killed in a clash between guerrillas and Bolivian troops in southeastern Bolivia the previous Sunday. According to General Ovando, Che Guevara died the following day of wounds suffered in the engagement with Bolivian Army forces, but that version of the events falls apart under scrutiny.

(U) The official army medical report states that Che’s body had seven bullet wounds including one on each side of the chest and one directly through the heart. It would have been impossible for Che to have lived even five minutes, let alone the 24 hours General Ovando maintains, with the wounds described by the medical examiner.

The Loss of the USS Pueblo

(U) As far as the officers and men aboard the USS Pueblo were concerned, the forenoon of January 23, 1968, was like any other winter morning in the Sea of Japan.

(U) Although low-lying haze to the west obscured the crew’s visual observations, the ship’s position was easily verifiable by radar, which showed the distinct outlines of the peninsula of Hado Pando and the two offshore islands, Yo Do and Ung Do, the latter being closer, the other farther south.

(U) The Pueblo’s executive officer, Lieutenant Edward R. Murphy, gave Petty Officer Skip Schumacher the position for inclusion in the second SITREP of the day: 39 degrees 25.2 minutes North, 127 degrees 55.0 minutes East, 15.8 miles off Ung Do.

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Lieutenant Steve Harris, officer-in-charge of the Special Operations Detachment—the SIGINT unit below deck—reported no significant although the Pueblo wasn’t far from Wonsan. Over the previous couple of hours the communications technicians had picked up an unusual amount of radio chatter, but it was too fast for Harris’ two Marine interpreters, Chieca and Hammond, to make out. They recorded it, intending to play it back later with Korean dictionaries in hand.
(U) Shortly after 11:00 a.m. Steve Harris posted the ship’s destruct bill on the door of the SIGINT spaces, listing the priority order for destruction of classified documents and machines in an emergency, and tasking individual men with specific assignments.

(U) Around noon luncheon chatter in the wardroom was interrupted by a call from the bridge, Quartermaster Law reporting that a vessel had been sighted about eight miles to the south and appeared to be approaching.

(U) No one aboard the Pueblo considered the sighting of a vessel eight miles away anything out of the ordinary, until Law’s second call from the bridge, saying that the vessel had covered three miles in four minutes, a speed of better than 40 knots.

(U) The Pueblo’s captain, Commander Lloyd M. Bucher, excused himself from lunch and hurried to the bridge. The ship was now less than three miles away and closing fast. There was no longer any question of its direction. It was headed straight for the Pueblo.

(U) On reaching his observation platform on the signal bridge, Bucher yelled down the voice tube to the pilothouse that he wanted Lieutenant Steve Harris, officer-in-charge of the Pueblo’s SIGINT detachment, to report to him immediately with his identification manuals. Because there was no telephone link between the signal bridge and the SIGINT spaces, each order had to be repeated by whoever was manning the phones in the pilothouse, a waste of precious time and potentially a source of confusion.

(U) Visibility was good enough for the Pueblo’s executive officer, Lieutenant Murphy, to spot the distant shape bobbing toward them through the white flashes of a powerful bow wave. The approaching vessel showed enough detail for Murphy to make a tentative identification: a submarine chaser flying the North Korean ensign bearing down on them at flank speed.

(U) When the subchaser kept coming on without change of speed or course, Bucher decided to make sure his ship looked in every respect what he wanted to appear to be—an oceanographic research vessel. The international day signals indicating such activity were hoisted. Bucher sent Lieutenant Murphy scrambling down the ladder to the pilothouse to check their position to make sure they really were in international waters.

(U) They were. The Pueblo was 15.9 miles off the island of Hung Do, lying dead in the water with a slight southeasterly drift.

(U) In the crypto room, Radioman Don E. Bailey interrupted the message he was transmitting to Kamiseya, Japan, to quickly tap out the words “COMPANY OUTSIDE.”

(U) “You should hear things buzzing down there!” Harris exclaimed excitedly coming up off the ladder. “They must have every fire-control radar in the country locked on us.”

(U) By this time the North Korean ship had closed to less than a mile. Taking the glasses, Steve Harris identified the vessel as a Soviet-type SO-I subchaser, armed with twin 57-mm cannons. She was flying the North Korean ensign, and her men on deck were at battle stations. She was a warship, primed and ready for action.

(U) Bucher watched the subchaser heading straight for the Pueblo at close to flank speed and said to Harris, “Now, get below and find out if your CTs can eavesdrop on any talk with her base. It might be fun to know her impressions of us.”

(U) Bearing in mind that he shouldn’t show more crew than the normal 30-odd men carried by a legitimate oceanographic research vessel, Bucher ordered everybody not engaged in official topside business to remain below and out of sight.

(U) The SO-I closed to a thousand yards, her bridge crowded with men scrutinizing the American vessel. Bucher decided to bluff. He gave no engine orders. The Pueblo remained dead in the water. Bucher ordered Signalman Leach to hoist flags identifying the Pueblo as a hydrographer.

(U) Churning up the Pueblo’s port side, the SO-I suddenly reduced speed and began circling in a clockwise direction. Her signalman ran up an international signal flag, the first attempt to communicate with the American ship: WHAT NATIONALITY? Bucher answered by having his signalman raise the American flag.

(U) The subchaser was now close enough for the Pueblo’s crew to see about a dozen North Koreans wearing quilted green uniforms. Almost all carried automatic rifles. They were watching the Americans through binoculars and the gun sight of the twin 57-mm cannons.

(U) By the time the Koreans completed their third circle, they lowered their original flags and replaced them with another set: HEAVE TO OR I WILL FIRE.
"What the hell does he mean by that?" Bucher wondered aloud. "We are already lying dead in the water!"

According to Lieutenant Murphy, the Pueblo was then 15.8 miles from the nearest land, the island of Ung Do. There was not even the remotest possibility that the ship was inside North Korea's claimed territorial waters.

Bucher had Leach hoist a new set of flags: I AM IN INTERNATIONAL WATERS.

By now, Skip Schumacher and Ensign Tim Harris had joined Bucher on the bridge. Bucher ordered Schumacher to, "Get going on the messageform for a JOPREP Pinnacle report. Contact is a KORCOM, modified SO-I submarine chaser, challenging and receiving confirmation of our nationality."

At that moment, Gene Lacy suddenly sang out, "Three high-speed torpedo boats, bearing 160, range short, ten thousand yards, with zero angle on the bow!"

Bucher called after Schumacher, "Add that to the JOPREP Pinnacle! Ask them to keep the circuits open for more."

Three torpedo boats coming from the general direction of Wonson were now within a mile and approaching at full speed. The SO-I continued circling, her signal fluttering from her yardarm and her cannon trained directly at the Pueblo, gun crews ready.

Steve Harris, secluded in the SIGINT spaces with his communications technicians, was trying without much success to interpret the Korean voice communications filling the receivers.

The torpedo boats were closing, and fast, their blurred white wakes changing to sharp configurations. Steve Harris identified them as North Korean P-4 motor torpedo boats, maximum speed 50 knots, four times faster than the Pueblo.

Bucher barked orders. Schumacher was to prepare a new Pinnacle, informing COMNAVFORJAPAN and CINCPACFLT of the worsening situation. At Schumacher's suggestion, Bucher upgraded the message from Flash to CRITIC. A CRITIC would indicate a possible impending international incident and would be passed all the way up the chain of command to the White House.

Still Bucher gave no engine order. And no order to man the machine guns.

Bailey kept the circuit up with small talk. "I SURE COULD USE SOME LIBERTY NOW . . . I Didn't think I'd miss the old lady so much . . ."

Schumacher interrupted him with the first Pinnacle. Bailey transmitted it at 12:54 p.m.

The P-4's approached on the Pueblo's port beam, all guns pointed at the Pueblo. The lead torpedo boat swerved under the Pueblo's fantail, passed down the starboard side and then steamed over to the subchaser, now idling some two hundred yards away.

On the other end of the teletype link, the operator in Kamiseya wanted to know, "DO YOU HAVE ANY MORE TRAFFIC? HOW IT FEEL TO BE THREATENED?"

Bailey replied, "GOT SOME MORE COMING IN A MINUTE BUT DON'T HAVE IT IN COMM YET. WE WILL PASS IT AS SOON AS I GET IT. IS WORSE OUT HERE NOW, GOT MORE COMPANY AND NOT DOING SO GOOD WITH THEM . . ."

Bucher asked if the ship could be scuttled quickly. The answer was far from comforting. About two hours to flood the main engine room after unbolting and disconnecting the salt water cooling intakes. Then she would not sink without breaching the bulkhead to the auxiliary engine room.

On the other end of the teletype link, the operator in Kamiseya wanted to know, "DO YOU HAVE ANY MORE TRAFFIC? HOW IT FEEL TO BE THREATENED?"

"Thirty fathoms, sir!" came the immediate reply, driving all scuttling considerations out of Bucher's mind. Too shallow to justify an action that would take too long and which could be easily thwarted by Korean divers who would eventually recover the ship's contents.

The three torpedo boats were circling within fifty yards with their machine guns aimed at the Pueblo's bridge and their decks filled with what looked like soldiers or marines armed with Russian-type automatic carbines. The SO-I was jogging a little farther off the port quarter, its 57-mm cannons ready to fire at point-blank range and her threatening signal of HEAVE TO OR I WILL FIRE still fluttering from her yardarm.

To his answer of AM IN INTERNATIONAL WATERS Bucher added the international signal for INTEND TO REMAIN IN THE AREA.

The four torpedo boats closed in, broke their loose formation, and deployed to cover the Pueblo from all sides, near enough for Bucher to see their fully manned machine-gun mounts with the naked eye.

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(U) At 1:15 p.m. came the unmistakable roar of jets as a pair of MiGs zoomed over the Pueblo in a single, quick pass.

(U) A fourth torpedo boat appeared out of nowhere, less than a mile away, bearing down on the Pueblo. And to further complicate things, another small but rapidly swelling shape was cutting a white wake over the leaden seas outside Yong Hung Bay—another subchaser.

(U) Skip Schumacher returned to the flying bridge, and Bucher said to him, “Did you get off that JOPREP?”

(U) Schumacher nodded, staring in shock at all the activity around them.

(U) “Okay!” Bucher snapped. “Then get set to plug in number two!” Bucher rattled off the bare facts describing developments over the past ten minutes to supplement his first report. But things were happening too fast for him to keep up with the message content.

(U) One of the torpedo boats drew close alongside the SO-I flagship, communicating first by semaphore then by megaphones, loudly enough for the men on the Pueblo to hear the voices echoing across the three hundred yards of slow swells. Moments later, a chill ran down Lieutenant Murphy’s spine as rubber tires and rope mats were slung over the side of the P-4, and a dozen men wearing helmets and carrying automatic arms moved from the SO-I to the deck of the P-4. It was a boarding party.

(U) As Bucher watched, quivering with anger, the P-4 began backing down on the Pueblo’s starboard bow, fenders rigged for boarding.

(U) Bucher knew the time had come to remove his ship from a situation that seemed on the brink of getting out of control. He called down the voice tube. “All ahead one third! Navigator! Give the best course to open from land!”

(U) “Zero-eight-zero, sir!” came Lieutenant Murphy’s reply.

(U) “Steer zero-eight-zero,” Bucher confirmed. “Build up speed to two-thirds, then full. We are making a dignified withdrawal, not a run for it.”

(U) A series of hacking coughs erupted from the Pueblo’s stack as the engine room threw the diesels into gear and advanced the throttles. The rumbling and belching of smoke was way out of proportion to the Pueblo’s ability to overcome inertia and get moving. For a moment it looked as if the torpedo boat foaming full astern, her decks crowded with armed men, were going to touch the Pueblo’s sides. The boarding party was braced to jump over the railings when the Pueblo at last began gathering speed and the gap between the two ships widened again.

(U) Bucher ordered the word passed to prepare for destruction of all classified material, then he had Leach hoist a long signal which he hoped would cause a stall while the Koreans broke it down.

(U) THANK YOU FOR YOUR CONSIDERATION, read the new flags. I AM DEPARTING THE AREA.

(U) To Helmsman Ronald Berens he shouted down through the voice tube, “All ahead full.”

(U) Swinging around in a wide circle, the Pueblo, still surrounded by ships, started for the open sea. The P-4 began backing down again. She came to within twenty feet. The men at the Pueblo’s rail could look right into the unsmiling North Korean faces.

(U) While two of the P-4’s played porpoise across the Pueblo’s bow, weaving back and forth at no more than twenty yards in spumes of spray, the SO-I began closing on the Pueblo’s port quarter, trying to force her in toward land.

(U) The SO-I hauled down her HEAVE TO OR I WILL FIRE signal and appeared to jog along indecisively in the Pueblo’s wake, dropping behind more than two thousand yards. But the torpedo boats stayed close. Two of them hovered around the stern, the other two porpoised around the bows, zigzagging as close as ten yards to block the Pueblo’s withdrawal.

(U) The second SO-I subchaser joined the fray. The calm seas allowed all six hostile vessels full use of vastly superior speed. They were having no trouble at all keeping up with Pueblo’s plodding 12 knots, nor in training their weapons on an easy target. But the Pueblo kept stubbornly pressing ahead, and for a few moments it looked as though she might bluff her way through.

(U) By this time Pinnacle 2 had gone out. Bailey, in the crypto space, couldn’t see what was happening. He had to rely on what passing crewmen told him, and someone confused rumor with fact.

Bucher was trying his best to extricate his ship, but every time he ordered a course change, the faster SO-I compensated. Moreover, Bucher's course changes were gradually turning the Pueblo back toward land.

The emergency had reached the point where the use of voice communication with Japan was justified, and Lieutenant Murphy, with Bucher's assent tried to reach Kamiseya on the high frequency voice link to let them know what was happening. The direct voice link wasn't secure, but at that stage, as far as Murphy could see, encryption was no longer of any importance.

The first SO-I began speeding up, rapidly regaining the distance she had lost during her brief hesitation. A now familiar hoist of signal flags shot back up her yardarm: HEAVE TO OR I WILL FIRE!

To present the smallest possible target, just in case her intentions were serious, Bucher shouted down the voice tube, "Come right ten degrees!"

The SO-I easily countered this maneuver by pouring on more speed and turning outside to give her gunners a broadside shot.

"Come right ten more degrees!"

Again the SO-I adjusted to the evasion tactic.

Murphy checked the Pueblo's position, now 15.6 miles from Ung do, and reached for the phone.

"Come right ten degrees!"

The subchaser suddenly opened fire—a long, sustained burst from her 57-mm cannon. Shells screamed overhead, exploding against the radar mast, the whine of splinters drilling through the lucite windscreen of the flying bridge.

In a reflex action, everyone hit the deck. Bucher threw himself down, barely in time to dodge the lethal hail of shattered steel and plastic, feeling pieces of shrapnel slashing into his legs and buttocks.

Seconds later a second volley, intermingled with a rattle of machine-gun bullets hammering against the metal stack and superstructure, crashed into the radar mast. The torpedo boats had opened fire. The salvo lasted for perhaps five or six seconds, leaving shattered glass all over the pilothouse, blasting to shambles not only Bucher's bridge but all the high-level briefings, his guidelines for the mission.

As the crew got back to their feet, Law ran topside to see if anyone had been hurt.

Murphy became aware of a voice speaking directly into his ear. In diving for the deck, he'd held onto the radiotelephone.

"Stand by to change frequencies," the operator in Japan kept repeating. "Stand by to change frequencies."

At the very moment Murphy needed to get through to Japan, he was caught in one of the twice-daily frequency changes. He tried repeatedly to break in, but the operator wouldn't stop talking long enough to give him a chance.

"Commence emergency destruction of all classified pubs and gear!" Bucher shouted. "Be sure the word is passed on down to Lieutenant Harris in the SOD hut!"

The order was relayed, everyone forgetting in the excitement of the moment that there was no loudspeaker in the SIGINT spaces. Neither were there portholes, Steve Harris and his communications technicians were completely out of touch with what was going on.

As Signalman Leach and Communications Technician Robin, on the bridge to aid in ship identification, pushed themselves up from the shards of glass littering the pilothouse, Bucher saw that both men had been injured. Leach had pieces of shrapnel in his leg; Robin had a lacerated arm and was bleeding from a neck wound, while one metal splinter had creased Bucher's ankle and still another lodged in his rectum.

Quartermaster Law came bounding up the ladder, exclaiming, "Is everybody okay here, sir?"

"A few nicks. How about below?"

"No casualties reported yet, sir," he answered.

Schumacher asked Bucher if he wanted him to man the machine guns.

The captain's reply: "Negative."

Bucher's instinct was to bring his ship to general quarters and battle stations, but there were in fact no battle stations on the Pueblo. The Pueblo's 50-caliber machine guns were no match for 57-mm cannon. Moreover, the Pueblo's gunners would have had to cross exposed decks, risking raking automatic weapons fire from a range of thirty yards as they unlashed frozen tarpaulin covers, opened ammunition lockers, and attempted to fire totally exposed weapons. It would have meant certain death to even try.

The Pueblo would not fight back. Not a shot would be fired, in anger—or defense.
"Set a modified General Quarters!" Bucher ordered. "Nobody to expose themselves topside! I have the deck as well as the conn. Left full rudder, all ahead full!"

As futile a gesture as it might seem, Bucher ordered Leach to haul a protest flag up on the yardarm and pressed his ship on toward the open sea.

Lieutenant Murphy, still caught in the frequency change, was trying both the old and new channels.

Another salvo from the 57s ripped into the Pueblo.

Murphy kept trying to get Japan on high frequency voice, unaware that the antenna coupler had just been shot off.

Radiomen Hayes and Crandall started carrying out files from their cubicle and rushing them to the incinerator behind the stack; swirls of smoke smelling of burning paper told Bucher that primitive destruct equipment was functioning. Quartermaster Law, Signalman Leach, CT Robin, together with lookouts and photographer were helping them pass out a mass of classified materiel and documents.

"Watch yourselves out there and take cover behind the whaleboat if the shooting gets hot," Bucher warned them. "But keep that stuff burning... burning to ashes!" There was a roar overhead as the pair of MIGs made another threatening pass. The lead plane fired a rocket that streaked high and far ahead of the Pueblo, exploding in the sea a good eight miles away.

The North Koreans opened up with another salvo. A stream of shells yowled through the Pueblo's rigging, some bursting against the masts and scattering another shower of shrapnel downward. Others slammed through the stack and superstructure. The torpedo boats cut loose with their machine guns at the same time, stitching through the pilothouse from both sides.

As soon as the cannon fire let up, Bucher shouted, "Clear the flying bridge!"

Bucher was somewhat relieved by the report he was getting from Steve Harris. "Emergency destruct is in progress, Captain, and communications are open with Kamiseya."

"Good! Keep up the destruct, but don't destroy today's crypto codes until I give the orders. I'll have another CRITIC message to do soon."

Temporarily reassured that matters were being taken care of in the SIGINT spaces, Bucher gave his full attention to the bridge. He was still angling out to sea at 135 degrees, All Ahead Full. Depth soundings were still 30-35 fathoms, too shallow according to accepted standards for effective dumping of classified material in weighted bags. Even if the Pueblo had reached a depth of 100 fathoms, the time element probably would have prevented any successful scuttling action.

Radioman Bailey, still in contact with Kamiseya on the secure teletype, commenced sending, "S-O-S S-O-S S-O-S WE ARE HOLDING EMERGENCY DESTRUCTION. WE NEED SUPPORT. S-O-S S-O-S S-O-S. PLEASE SEND ASSISTANCE."

Gene Lacy was returning to the bridge after checking in with Central Damage Control. His face was ashen, but his voice steady enough as he reported to Bucher: "No damage below, sir, except minor hits above the water line."

"Okay, Gene. We're still afloat and under way. We'll keep trying to bully our way through." Bucher picked up some papers from the chart table and shoved them into Crandall's arms as the sailor rushed another load toward the incinerator.

Then the North Koreans opened up with another salvo, aimed directly at the Pueblo's bridge. The 57-mm shells preceded the sound of their thumping muzzle blasts. One round zinged through the pilothouse, drilling the remaining glass out of one window, passing within inches of Gene Lacy's head and scorching Tim Harris' left ear before whistling into the sea a hundred yards beyond the ship.

Bucher was stunned by Gene Lacy's wild-eyed look as the sailor dragged himself back to his feet and suddenly yelled at the captain, "Are you going to stop this son-of-a-bitch or not?"

There was only a fraction of a second's hesitation before Lacy reached out and yanked the annunciator to All Stop.

Three decks below, the isolated engineers instantly rang the answering bells. Then came an abrupt break in the wheezing thrrob of the Pueblo's perforated stack and a rapid deceleration from her 12-knot speed.

Bucher stared at Gene Lacy in disbelief for another fifteen seconds before the utter uselessness of further resistance flooded through his brain. Instead of lunging for the annunciator and tearing it back to All Ahead Full, Bucher walked out on the starboard wing of the bridge. It was painfully obvious to Bucher
that failure to halt would only result in their being shot to pieces with a lot of good men killed to no avail. In the end the North Koreans would get most of the classified documents.

(U) The shooting had stopped.

(U) Forty yards off the Pueblo’s starboard quarter, one of the North Korean torpedo boat was bobbing along, the grim, impassive faces of her machine gunners staring back at Bucher over the sights of their weapons. As the Pueblo coasted to a stop, the subchaser, smoking cannon still aimed at the American ship’s vitals, reduced speed.

(U) At 1:37 p.m., Bailey sent, “WE ARE LAYING TO AT PRESENT POSITION . . . THIS CIRCUIT ONLY CIRCUIT ALIVE . . . PLEASE SEND ASSISTANCE. WE ARE BEING BOARDED . . .”

(U) Kamiseya replied at 1:38. “QSL YOUR LAST AND PASSING ALL INFO.”

(U) Bailey was wrong about the boarding. The subchaser had now raised a new set of signal flags: FOLLOW ME. I HAVE A PILOT ABOARD.

(U) This time, on his own initiative, without prompting, Bucher ordered, “Ahead One-Third.”

(U) The Pueblo began following the SO-1.

(U) Bailey, at 1:45: “WE ARE BEING ESCORTED INTO PROB WONSAN REPEAT WONSAN. WE ARE BEING ESCORTED INTO PROB WONSAN REPEAT WONSAN . . .”

(U) Despite the frantic activity, destruction of classified material was proceeding very slowly. The Pueblo’s two paper shredders were woefully inadequate and could chew up only an eight-inch stack of paper every fifteen minutes. Then the shreds had to be burned. The incinerator had a three-pound limit, and only loose sheets at that. Each bound publication—there were dozens of them—had to be torn apart sheet by sheet. Stacks of paper were piling up next to the incinerator, growing higher by the minute.

(U) Below, small fires smoldered in the passageways. Because the ship had been sealed when the crew went to modified general quarters, the portholes were closed, ventilation shut off. Now clouds of acrid smoke lingered, scorching eyes, throats, nostrils.

(U) The SIGINT space was like a scene out of Dante’s Inferno. Three or four small fires were burning. With no way for the smoke to escape, it just grew thicker and thicker. One CT swung a sledgehammer against a radio console and broke the handle. Others wielded sledgehammers and fire axes and found they simply rebounded off the metal. Sensitive the equipment may have been, delicate it was not. But with aching arms the crewmen hacked away until piece after piece was reduced to a mass of twisted steel.

(V) Executive officer Murphy’s advise was to stall. “We need every minute we can get to complete the destruction.” In the back of his mind was the hope that, with enough time, the Navy or the Air Force might be able to rush aid to them.

(U) Despite angry signaling from the SO-1 for the Pueblo to increase speed, Bucher continued to follow at One-Third.

(U) In addition to the burning, the crew was now jettisoning material over the side, despite the shallow water, hoping to keep as much material out of North Korean hands as possible.

(U) Bucher decided to gamble again. He said later he wanted to see what would happen if he ordered the Pueblo brought to Full Stop. The answer came quick enough.

(U) Dropping back, the SO-1 unleashed a barrage of shells that smashed into the center part of the ship on the starboard side, the area from which most of the smoke was coming.

(U) The North Koreans’ action seemed to stun Bucher. A full minute passed before he ordered, “Ahead One-Third.”
"Damage Control Two reports three casualties, one critical!" This was followed moments later by, "Mr. Murphy, we need morphine!"

Lieutenant Murphy, as the ship's medical officer, kept all the drugs on board stored in his office safe. He ran down the inside ladder. At least one shell had gone through the passage between Bucher's stateroom and the officers' wardroom. Three men burning papers from the cryptographic safe had been hit. Marine Sergeant Robert Chicca had a hole the size of a silver dollar in his upper thigh. Fireman Steven Woelk had been seriously wounded in the lower abdomen. Worst of all was Fireman Duane Hodges. A shell caught him almost squarely in the groin, ripping his intestines open and partially severing his right leg.

McClaren had temporarily replaced Bailey on the teletype and was in contact with Japan, asking, "ARE YOU SENDING ASSISTANCE? ARE YOU SENDING ASSISTANCE? ARE YOU SENDING ASSISTANCE? ARE YOU SENDING ASSISTANCE?"

Kamiseya replied with, "WORD HAS GONE TO ALL AUTHORITIES. WORD HAS GONE TO ALL AUTHORITIES. COMNAVFORJAPAN IS REQUESTING ASSIST. WHAT KEY LISTS DO YOU HAVE LEFT? LAST WE GOT FROM YOU WAS 'ARE YOU SENDING ASSIST.' PLEASE ADVISE WHAT KEY LIST YOU HAVE LEFT AND IF IT APPEARS THAT YOUR COMM SPACES WILL BE ENTERED?"

Bucher entered the crypto room and had McClaren send out his reply: "HAVE 0 KEY LIST AND THIS ONLY ONE HAVE. HAVE BEEN REQUESTED TO FOLLOW INTO WONSAN. HAVE THREE WOUNDED AND ONE MAN WITH LEG BLOWN OFF. HAVE NOT USED ANY WEAPONS OR UNCOVERED 50-CAL. MAC. DESTROYING ALL KEY LISTS AND AS MUCH ELE EQUIPT AS POSSIBLE. HOW ABOUT SOME HELP. THESE GUYS MEAN BUSINESS. HAVE SUSTAINED SMALL WOUND IN RECTUM. DO NOT INTEND TO OFFER ANY RESISTANCE. INTERROGATIVE QSL. INTERROGATIVE QSL. DO NOT KNOW HOW LONG WILL BE ABLE TO HOLD UP CIRCUIT AND DO NOT KNOW IF COMM SPACES WILL BE ENTERED."

Kamiseya: "ROGER, ROGER. WE DOING ALL WE CAN. CAPT HERE AND CNFJ ON HOTLINE. LAST I GOT WAS AIR FORCE GOING HELP YOU WITH SOME AIRCRAFT BUT CAN'T REALLY SAY AS CNFJ COORDINATING WITH I PRESUME KOREA FOR SOME F-105. THIS UNOFFICIAL BUT I THINK THAT WHAT WILL HAPPEN."

Bailey resumed his position on the teletype at 2:09 with, "ROGER YOUR LAST. ROGER YOUR LAST."

On deck there was little room for optimism. The P-4s had now commenced firing. Sheets of paper stamped SECRET, from the ship identification pubs, were scattered all over the Pueblo's deck.

Meanwhile, below, Bailey kept up his running contact with Japan. "SURE COULD USE SOME HELP NOW."

To which Kamiseya replied, "ROGER, ROGER. WE STILL WITH YOU AND DOING ALL WE CAN. EVERYONE REALLY TURNING TO AND FIGURE BY NOW AIR FORCE GOT SOME BIRDS WINGING YOUR WAY."

Bailey, still hopeful, sent, "ROGER, ROGER. SURE HOPE SO. WE PRETTY BUSY WITH DESTRUCTION RIGHT NOW. CAN'T SEE FOR THE SMOKE."

Kamiseya: "ROGER, ROGER. WISH I COULD HELP MORE. ALL INFO YOU PASS BEING SENT TO AREA COMMANDER AND THEY IN TURN COORDINATING FOR WHATEVER ACTION GOT TO BE TAKEN. SURE PROCESS ALREADY BEING INITIATED FOR SOME IMMEDIATE RELIEF. COMSEVENTHFLT, CNFJ, AND NSA GROUP PAC ALL GOT INFO RIGHT AWAY."

Bailey, at 2:15: "ROGER YOUR LAST AND SURE HOPE SOMEONE DOES SOMETHING. WE ARE HELPLESS AT THIS TIME. CANT DO ANYTHING BUT WAIT."

Bucher was on the port wing frantically waving his white stocking cap at one of the P-4s, yelling over and over, "Stop firing, you bastards!"

Lieutenant Murphy, who had come on deck to throw more classified papers over the side, saw the captain "waving the white emblem of surrender." Murphy would later write, "I realized for the first time that Bucher intended to give up the ship, that he was, in fact, at this very moment doing exactly that."
(U) Bailey, unaware of what was happening out on deck, continued to keep Kamiseya informed. "DESTRUCTION OF PUBS HAVE BEEN INEFFECTIVE. SUSPECT SEVERAL WILL BE COMPROMISED."

(U) "CAN YOU GIVE ME A LIST OF WHAT YOU HAVEN'T DESTROYED?" Kamiseya wanted to know. "CAN YOU GIVE ME A LIST OF WHAT YOU HAVEN'T DESTROYED?"

(U) The P-4 with the boarding party came alongside on the Pueblo's starboard quarter. The subchaser signaled the Pueblo to come to All Stop.

(U) On the bridge, following Bucher's order, Lacy pulled the annunciator back. Then came Bucher's voice over the loudspeaker. "Lay aft to the starboard quarter to assist the boarding party."

(U) Bailey, 2:32, informed Kamiseya, "HAVE BEEN DIRECTED TO COME TO ALL STOP AND BEING BOARDED AT THIS TIME."

(U) Kamiseya, helpless, could only reply, "ROGER YOUR LAST. IT ON WAY TO CNFJ."

(U) Bailey: "FOUR MEN INJURED AND ONE CRITICALLY AND GOING OFF THE AIR NOW AND DESTROYING THIS GEAR."

(U) Kamiseya, acknowledging at 2:35 p.m. on January 23, 1968, sent, "ROGER, GO AHEAD. CAN YOU TRANSMIT IN THE CLEAR?"

(U) There was no answer from the USS Pueblo.

(U) The Pueblo's crew spent the next eleven months in brutal captivity.

(SC) The SIGINT damage that resulted from material falling into North Korean hands was among the most serious compromises in U.S. cryptologic history.
(b) (1)
(b) (3)-50 USC 463
(b) (3)-18 USC 798
(b) (3)-91. 66-26
Chapter Ten
Chapter Eleven

THE DECADE OF THE EIGHTIES
CHAPTER ELEVEN
THE DECADE OF THE EIGHTIES
Milestones

(U) The nineteen-eighties brought new waves of change to the National Security Agency. Ann Caracristi, who joined the Signal Intelligence Service in 1942 after graduating from Russell Sage college in New York, became the Agency's first woman Deputy Director on April 1, 1980, replacing Robert E. Drake. She served until her retirement on August 1, 1982, when she was succeeded by Robert E. Rich, former Assistant Deputy Director for Operations.

(S/SCI) By 1980 the American cryptologic system was clearly a major industry, spending _ on procurement and maintenance. Fixed SIGINT sites collected an average of _ of foreign radio signals a week, service cryptologic units flew over _ airborne SIGINT operations, and Agency employees worked _ hours of overtime that year.

(S/SCI) During the second quarter of Fiscal Year 1980, NSA released _ pieces of serialized end product; field sites sent out another _ . The NSA Communications Center's Internal Data Distribution Facility handled _ messages.

(S/SCI) The COMSEC side of the house produced 327,613 key lists and 30,829 one-time pads and published _ COMSEC manuals in fiscal 1980.

(U) Also in that year, five Agency mail centers handled 367,000 pieces of mail a month. The Geographic and Map Library maintained a collection of _ maps and responded to more than _ requests for maps and geographic information. NSA spent _ for new magnetic tapes. Nearly 1.5 million reels of tape were processed annually, and each year a contractor rehabilitated more than 800,000 for reuse.

(U) Another high-volume operation was the creation, and subsequent destruction, of classified waste. The Automatic Waste Collection System processed 35 tons of classified paper every 24 hours and, during the first half of the decade, fed a long list of unclassified but mysterious items, including a pair of ski boots, a washing machine motor, a pair of men's pants, a lady's bra and slip, a pencil sharpener and some .22 caliber bullets.

(U) As space became tighter at Fort Meade, more functions were transferred to the Friendship Annex. In 1980, the Army Corps of Engineers, acting on NSA's behalf, leased the International Tower, a square, seven-story building on Elkridge Landing road that had housed a bank and elements of the Maryland Department of Education. Dubbed FANX IV by the Agency, the International Tower became the new home of most of the National Cryptologic School.

(U) The FANX area became a sprawling industrial park in the early eighties, and NSA was a major tenant. Following ribbon-cutting ceremonies on October 2, 1981, the Agency leased the entire right wing of the first Airport Square building for the Office of Employment, Polygraph, Psychological Services and a small medical center. Additionally, the first floor and approximately 5,000 square feet of the second floor were allocated to the National Cryptologic School's Learning Center IV and its new employee training courses. The Airport Square office space was designed to support applicant processing so that all phases of preemployment screening could be handled in one building.

(U) By 1982 the congressional moratorium on new construction was lifted, and NSA began putting up additional buildings at Fort Meade. Air Force Lieutenant General Lincoln D. Faurer, who came to NSA from NATO to relieve Admiral Bobby R. Inman as the Agency's director on April 1, 1981, officiated at ground-breaking ceremonies. Before long, Operations Building 2A was rising from 600-plus pressure-injected concrete piles toward its eleven-story height, and 2B was going up right behind it.

(U) Little noticed by most of the Agency population was a new film destruction facility that went into operation in 1982 near the IRC building at the rear of the motor pool. Designed to recover the maximum
amount of silver from used film, the facility has two furnaces and an energy recovery system that allows the waste heat to be pumped into the main steam distribution system.

The Agency needed all of these new facilities to meet the decade's demands of an expanding work force and the challenges of the SIGINT targets, themselves growing in size, complexity and sophistication.
Assault on a Caribbean Isle

(U) A Navy Seal team slipped ashore on Grenada under cover of darkness, weapons in hand, and crept up the hill above St. George toward Government House. At first driven back by gunfire from guards inside the building, the Seals attacked a second time and took over the mansion where Governor-General Sir Paul Scoon was held under virtual house arrest by the island's military leaders.
(U) The main assault came a few hours later, in two strikes in the predawn darkness of October 25, 1983. The first strike commenced at 5:00 a.m. as 400 Marines aboard troop helicopters from the amphibious assault ship Guam took Pearls airport. In the second strike, 36 minutes later, hundreds of Army Rangers parachuted onto the 10,000-foot concrete strip of an uncompleted runway at Point Salines, on the southeastern tip of the island nation.

(U) At 8:15 a.m. in Washington, Secretary of State George Shultz briefed congressional leaders in the Cabinet Room at the White House on the Grenada strike force. Less than an hour later at a White House press conference, President Reagan, accompanied by Prime Minister Eugenia Charles of Dominica, made the public announcement.

(U) "Early this morning," the president began, "forces from six Caribbean democracies and the United States began a landing or landings on the island of Grenada in the eastern Caribbean."

(U) In a televised address to the nation on Thursday, October 27, the president explained that Grenada "was a Soviet-Cuban colony being readied as a major military bastion to export terror ... and undermine democracy. We got there just in time." The invasion was launched with the declared purpose of protecting the lives of 1,000 Americans who had been trapped on the island following a bloody left-wing military coup d'etat.

(U) Grenada became one more in a long line of international events in which NSA played a significant—and characteristically, unsung—role.

(U) Grenada has been an independent country since 1974 when Great Britain released it from the Commonwealth. United States relations with Grenada had been good until March 1979, when Maurice Bishop, leader of the leftist New Jewel Movement, overthrew Prime Minister Eric Gairy in a bloodless coup.

(U) In March of 1980, when Maurice Bishop decided to expand tourism in Grenada, Cuba sent 600 people to work on the Point Salines airport, a huge new $40.2 million project that included a 9,000-foot runway. Bishop claimed the airport was needed to accommodate jumbo jets bringing tourists from all over, but the White House said the airstrip was being built for Cuban and Soviet warplanes.

(TSC) By now, Air Cubana had begun service from Havana, and merchant ships from Cuba were regularly docking at St. George's. As time went by, Grenada relied more and more—economically and militarily—on Cuba.

(U) In March of 1983, displaying a high-altitude reconnaissance photograph during a television speech, President Reagan pointed to a picture of the Cuban barracks on Grenada and the lengthening airstrip, asking, "Who is this intended for?" Answering his own question, he said, "The Soviet-Cuban militarization of Grenada can only be seen as power projection into the region."

(U) Then, in a complete reversal of policy, Maurice Bishop came to Washington in June 1983 without an official invitation in an apparent attempt to improve relations with the United States. National Security Adviser William Clark and Deputy Secretary of State Kenneth Dam admonished Bishop that he should ease
his repressive rule and hold free elections. On his return to Grenada, Bishop told the New Jewel Movement that he wanted to test American intentions and talked of opening a dialogue with the United States.

(U) Reacting to Bishop's planned overtures to Washington, Cuba encouraged Deputy Prime Minister Bernard Coard to oust Bishop, and on October 13 Coard, with the help of leftist extremists and the Grenadian army, took over the country and placed Maurice Bishop under house arrest. But Maurice Bishop turned out to be more popular with the people than the coup plotters had realized, and on October 19 several thousand loyal supporters rushed the gates of Bishop's residence and freed the deposed prime minister and his longtime friend, Education Minister Jacqueline Creft. After speaking at a rally on Market Square in St. George's, Bishop and his entourage moved on to Grenadian military headquarters at Fort Rupert. Troops stationed there opened fire, cutting down a dozen people in the crowd. With the smell of cordite still in the air, the troops seized and summarily executed Maurice Bishop, Jacqueline Creft, two other high officials from the Bishop government and two union leaders.

On October 19, General Hudson Austin, a 45-year-old former prison guard, pronounced himself the new leader of a 16-man military government in Grenada.

(U) On October 20 Vice President George Bush, at the request of the president, convened a Special Situation Group meeting at the White House. Concern was mounting for the 1,000 Americans in Grenada, including 700 students at the St. George's University School of Medicine. The group decided to divert a naval task force headed by the carrier Independence, then on its way to Lebanon with 1900 Marines scheduled for normal rotation, and send it to the Caribbean.

(U) On Friday, two days after Maurice Bishop's murder and four days before the invasion, leaders of the six-nation Organization of Eastern Caribbean States met in Barbados; all expressed fear that events in Grenada could encourage Havana toward more bold actions in their own countries. They voted unanimously to ask the United States for help.

(U) That same day the American embassy in Bridgetown, Barbados, requested permission to let two United States consular officers into Grenada to check on the condition of the American students. The plane was first waved off but later allowed to land. The two consular officers did finally get to see the students but were alarmed at the lack of government authority everywhere in Grenada.

(U) President Reagan, Secretary of State George Shultz and Treasury Secretary Donald Regan were at the Augusta National Golf Club in Georgia for the weekend when a NIACT—Night Action—cable arrived in Washington from the embassy in Barbados, informing the State Department of the decision by the eastern Caribbean nations to ask the United States to invade Grenada. At 2:45 a.m. on Saturday, Secretary of State Shultz was awakened in the Eisenhower cottage and given the news from Bridgetown. Shultz and National Security Adviser Robert McFarlane passed the request on to Vice President Bush in Washington by secure telephone around 3:30 a.m. Bush roused other members of the National Security Council to discuss the plea and phoned Augusta to tell Shultz that the NSC officials were eager to move ahead with invasion plans. More discussions followed, in Georgia with the president, and by secure phone between the president and Bush and Defense Secretary Casper Weinberger.

(U) On October 24, the day before the American landing, the Cuban diplomatic corps was busily publicizing fear of an impending invasion of Grenada—with good reason. At 6:00 p.m. President Reagan signed the order to execute the invasion plan.

(TS) On the eve of the invasion, a Cuban AN-26 transport arrived in Grenada carrying Cuban Army Colonel Pedro Tortolo Comas and the head of the Cuban America Department's Caribbean Section, Carlos Diaz Larranaga. The Vietnam Heroica remained in the area, awaiting orders from the Cuban embassy.
Meanwhile, the United States Navy seal team was quietly paddling its way toward the dark silhouette of Grenada. Shortly after the invasion, Admiral Wesley L. McDonald, CINCLANT, commissioned ten people—eight from the military, one from CIA and one from NSA—to fly to Grenada and bring back any and all evidence that would support the administration's decision to mount the assault. The team, which included NSA's arrived four days after the invasion. While the others went on to the island to begin their collection task spent two days aboard the Guam inventorying and packaging items removed from Maurice Bishop's home, all to be taken back to Washington. He discovered more than 5,000 pounds of documents and equipment, all of which were loaded on an aircraft and, with as the escort, flown to Andrews Air Force Base. returned to Grenada the next day to continue the job of collecting evidence of Cuban activity on the island. By the time the team had finished its task, more than ten thousand tons of cargo had been shipped to the United States—including the radio equipment, Soviet-manufactured arms and ammunition displayed at United Nations headquarters in New York.

The Downing of Korean Air Lines Flight 007

Captain Chun Byung In, a veteran pilot with more than 10,000 hours of flying to his credit, banked away from the flickering lights of Anchorage, Alaska, and nosed his Boeing 747-200B down "Jet Route 501," a southwesterly course along the Aleutian Islands. The Korean airliner was starting the 3,800-mile run to Seoul's Kimpo International airport. In Anchorage the time was 4:00 a.m., August 31, 1983.

The crew had entered the longitude and latitude for Anchorage and the first five checkpoints along the way in the 747's Inertial Navigational System prior to takeoff. They would punch in coordinates for the remaining seven checkpoints between Anchorage and Seoul during the flight.

At checkpoint Bethel, about 340 miles west of Anchorage, Captain Chun switched to what pilots call "Red Route 20," the most northerly and direct of the five internationally recognized courses to Tokyo and Seoul. Red Route 20 runs roughly parallel to the Kamchatka Peninsula, about 30 miles from the Kurile Islands, which are claimed and occupied by the Soviets, then over the main Japanese island of Honshu, and finally westward to Seoul.

All pilots who fly through this region are familiar with Soviet attitudes about overflights, and sensitive areas were well marked on Chun's maps. Said one blue-bordered warning: "Aircraft infringing upon non-free flying territory may be fired upon without warning." Another read: "Unlisted radio emissions from this area may constitute a navigational hazard or result in border overflight unless unusual precaution is exercised." Still, Red Route 20 is routine to the hundreds of commercial airline pilots who travel it every month.

The first part of Korean Air Lines Flight 007 passed without incident. Captain Chun contacted air traffic controllers in Anchorage, who handled the first 1,800 miles of his trip over the first five mandatory navigational checkpoints. Neeva, at 172 degrees 11 minutes east, 54 degrees 40 minutes north, was the fifth checkpoint. Captain Chun reported passing Neeva 900 miles into his journey.

At this point the KAL crew may have made one or more errors leading to a chain of events that would have dramatic and tragic consequences. At the time, the errors hardly seemed serious, just oversights that would soon be forgotten.

When Flight 007 failed to switch radio frequencies from Anchorage Domestic on VHF to Anchorage Oceanic on high frequency single sideband, Anchorage control called other aircraft in the area to relay a message to the KAL 747 asking Flight 007's captain if he had left the VHF frequency for Oceanic control. The airwaves were full of chatter, and there was evidence of some confusion. The distraction over radio frequencies occurred just about at the time that a vital switch should have been turned in the Flight 007 cockpit, coupling the autopilot to the Inertial Navigational System. If that switch were not properly thrown because of the distraction over radiotelephone frequencies, a plausible explanation exists for the events that followed.
(U) Although no one was aware of it at the time, KAL Flight 007 began to stray off course after passing
the Neeva checkpoint. Having veered off Red Route 20, Flight 007 passed beyond the range of Alaskan
radar. Anchorage control handed the flight off to Tokyo, putting KAL 007 in high frequency radio contact
with Narita tower but not within range of Japanese air traffic control radar. In short, the Korean 747 had
fallen between the cracks in the air traffic network.

(U) Captain Chun, unaware that he had intruded into Soviet territory, maintained his heading across the
southern tip of the Kamchatka Peninsula. For whatever reason, the 747's crew apparently never checked
their charts against the Inertial Navigation System readings, believing entirely in the INS. At 1708Z (4:26
p.m. Easter daylight time) Flight 007 was back in international airspace over the Sea of Okhotsk.

(U) The Korean airliner was, however, within range of Soviet air defense radar on Kamchatka Peninsula,
as Flight 007 was cruising southwestward over the Bering Sea.

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p.m. Easter daylight time) Flight 007 was back in international airspace over the Sea of Okhotsk.

(U) No one in the intelligence community had any reason to suspect that a commercial airliner was the
object of all that Soviet intention. Washington concluded that the Soviet Far Eastern command was
conducting an air defense exercise.

(U) At about the same time, radar operators at the Japanese Air Self-Defense Force installation at
Wakkanai, on the northern tip of Hokkaido, picked up an unidentified aircraft flying southwest at 142
degrees 23 minutes east, 47 degrees 29 minutes north. At the time they had no reason to associate the blip
100 miles north of Hokkaido with Korean Air Lines Flight 007.

(U) Unaware that a Soviet fighter eight miles to the rear had locked onto him with weapons control radar,
at 1822Z Captain Chun reported his position to Narita control in Tokyo as 147 degrees 29 minutes east, 42
degrees 23 minutes north—nearly 240 miles south of his true position.

(U) Whether or not Flight 007 was really "unidentified" after 1812Z remains arguable. Some experts
maintain that the Soviet pilots must have been able to distinguish a Boeing 747, even in the dark skies over
Sakhalin. Others dispute that certainty. Furthermore, although the electronic signature of a 747 is distinct
on American radar, Soviet equipment may not be that sophisticated.

(U) The Soviets nevertheless had a problem on their hands. A non-Soviet aircraft had slipped through
their vaunted air defense network, eluded their interceptors, crossed the southern end of Kamchatka
Peninsula and exited their airspace over the Sea of Okhotsk. Now it seemed ready to compound the audacity by overflying Sakhalin Island.

General Govorov's Far East command headquarters at Vladivostok. Govorov was a "book man," and the book said shoot down unidentified aircraft that enter Soviet airspace. But there could be repercussions, and the Far East command at Vladivostok bucked the problem up the line. The duty officer at Soviet Air Defense headquarters in Moscow doubtless declined to accept responsibility for shooting down an unidentified plane and called the Air Defense chief of staff, Colonel General Romanov. If Romanov checked further, it would have been with the commander of Soviet Air Defense Marshall Koldunov. Any one of those senior officers could have issued a positive order overruling the "book." By not doing so, they lent their tacit approval to General Govorov's order to shoot down the plane.

(U) At 1826:20Z the SU-15 pilot eight kilometers behind KAL Flight 007 told his ground controller, "I have executed the launch."

(U) Japanese radar operators monitoring their scopes on Hokkaido saw an unidentified blip close in rapidly on another blip they then knew to be the Korean airliner.

(U) The two radar symbols merged.

(U) Near the island of Moneron, 30 miles off the Sakhalin coast, Japanese fishermen heard at least two thunderous noises in the sky above them.

(U) The SU-15 pilot reported, "The target is destroyed."

(U) In the predawn skies over Sakhalin Island, Flight 007 began cartwheeling down toward the gray sea.

(U) Air controllers at Tokyo's Narita tower heard, "Korean Air 007 . . ." The words were followed by an unintelligible garble of sounds.
This initial collection of Profiles From NSA’s Past Forty Years ends here, not for lack of material but because the time required to sift through the records of the many other events that have occurred—and are occurring—over a span of four decades would further delay publication.

The National Cryptologic School will publish other editions of ON WATCH to fill in gaps in these stories and add additional episodes to give the men and women of the National Security Agency a fuller appreciation of the importance of their contributions.