

WHERE THEY WERE

How much did Japan know?

By Robert S. Norris, William M. Arkin, and William Burr

THEY SAY YOU LEARN BY YOUR MISTAKES.

In the November/December 1999 issue of the *Bulletin*, we described the Pentagon's recently declassified, top-secret history of U.S. nuclear deployments abroad—*History of the Custody and Deployment of Nuclear Weapons: July 1945 through September 1977*. Appendix B of that report included alphabetical lists of the countries where U.S. nuclear bombs were deployed between 1950 and 1977, but many of the locations had been blacked out before the document was released.

Based on the best available information, historical hints, and circumstantial evidence, we correctly identified 25 of the 27 blacked out countries. We incorrectly named Iceland as the nu-

clear storage location beginning with the letter "I." [For more on Iceland, see page 80.]

After the *Bulletin* was published, the U.S. government took the extraordinary step of suspending its "neither confirm nor deny" policy concerning nuclear weapons, specifically telling the Associated Press on October 26 that Iceland was not the "I" country blacked out on the list.

Everyone loves a mystery, and now we had two: We had already puzzled over a "C" location, listed between Canada and Cuba, which we had not been able to identify. And what was the real "I" location, if not Iceland?

E-mail and telephone calls poured in from all corners of the globe. Per-

haps the "C" country was Ceylon, suggested a Sri Lankan reporter; maybe the Chagos archipelago (Diego Garcia), suggested another. Suggestions included Chile, Christmas Island, the Canal Zone, Colombia, and many other candidates beginning with "C."

But on October 23, we got an e-mail from Daniel Long, a sociolinguist at Tokyo Metropolitan University, suggesting that the "C" location was Chichi Jima, a Japanese island that was occupied by the United States from 1946 to 1968. Then a highly knowledgeable Japanese source who contacted us on October 27 provided a "smoking gun" for Chichi Jima, as well as evidence that nuclear weapons had also been deployed on Iwo Jima.

We have now concluded that the "C" and "I" locations are Chichi Jima and Iwo Jima. After researching the National Archives and the U.S. Navy Archives, exchanging e-mail with experts, and communicating with U.S. veterans who served on or visited the islands, we can now tell the story that the Pentagon managed to keep secret for more than 40 years.

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FABLED AS A "NON-NUCLEAR NATION," Japan is beginning to look very differ-



October 1956: The U.S.S. *Tunny* prepares to test-fire a Regulus I cruise missile during operations in the South Pacific.



JACK FOLDS/CONRIS

A 1976 photo shows one of the gun mounts or "pillboxes" the Japanese built on Chichi Jima 20 years before World War II.

ent, given what we now know. Japan may have had its principles, but the Pentagon had its nuclear war plans and it pushed the envelope as far as it could. There were nuclear weapons on Chichi Jima and Iwo Jima, an enormous and varied nuclear arsenal on Okinawa, nuclear bombs (sans their fissile cores) stored on the mainland at Misawa and Itazuki airbases (and possibly at Atsugi, Iwakuni, Johnson, and Komaki airbases as well), and nuclear-armed U.S. Navy ships stationed in Sasebo and Yokosuka. In all, according to the declassified 1956-57 Far East Command "Standing Operating Procedures for Atomic Operations," 13 separate locations in Japan had nuclear weapons or components, or were earmarked to receive nuclear weapons in times of crisis or war.¹

Nuclear war planners never obtained the right to store complete nuclear weapons on the main islands. And the State Department always avoided a showdown, fearing that confrontation over the issue or leaks about a secret arrangement would inevitably lead to the downfall of the U.S.-oriented ruling Liberal Democrats. Japan

nevertheless hosted an extensive nuclear infrastructure—at its peak, as large as that of other American allies.

It is true that Chichi Jima, Iwo Jima, and Okinawa were under U.S. occupation, that the bombs stored on the mainland lacked their plutonium and/or uranium cores, and that the nuclear-armed ships were a legal inch away from Japanese soil. All in all, this elaborate stratagem maintained the technicality that the United States had no nuclear weapons "in Japan."

As the only nation to have been bombed with nuclear weapons, Japan adopted a non-nuclear policy, in part to exempt itself from being a nuclear target in the future, or so they thought. But beginning in the early 1950s, the Pentagon assumed that in the event of nuclear war, the U.S. bases in Japan and Okinawa would quickly be destroyed. That is why nuclear war planners wanted hideouts on Chichi Jima and Iwo Jima. The islands would serve as secret "recovery and reload" bases for submarines and bombers, which after withdrawing to the islands, would go on to wage a new offensive.

The idea of protracted nuclear war-

fighting may have gained notoriety in the Reagan years, but the plans go back to the beginning of the nuclear era.²

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FIVE HUNDRED MILES SOUTHEAST OF the Japanese mainland and 850 miles north of the U.S. possession of Guam lies Chichi Jima (Father Island in Japanese, also known as Peel Island), the only inhabited island in the Bonin (Ogasawara Gunto) group.

In the early nineteenth century, Britain claimed the Bonins, and in 1830, the British consul in Hawaii formed an expedition to Chichi Jima. The group included Americans (including a young man from Massachusetts named Nathaniel Savory) and other colonizers, who settled on Chichi Jima. Even after Japan successfully claimed the islands in 1876, the Westerners remained. By the start of World War II, the population had grown to some 4,300. (Many of the original settlers had married Japanese.)

The Japanese fortification of Chichi Jima began some 20 years before World War II. When he first visited the island in 1951, Adm. Arthur Radford, who was then the U.S. commander-in-chief in the Pacific, described gun emplacements, machine shops, oil storage, and ammunition magazines placed underground in concrete-lined, ventilated caves. It was a "fantastic network of underground tunnels and caves," Radford wrote in his autobiography, *From Pearl Harbor to Vietnam*. The Japanese boasted that the island

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was "the Gibraltar of the Pacific."³

One hundred and twenty miles from Chichi Jima, and 760 miles south-southeast of Tokyo, is Iwo Jima (Sulfur Island), the largest (at eight square miles) of the three-island Volcano group. The Japanese army decided to make Iwo a military fortress in 1944. The island's radar installation detected U.S. B-29s flying from Saipan and Tinian, and warnings were relayed to the mainland. Three airfields were built, and Japanese fighters based on Iwo Jima harassed bombers flying to and from Japan, even occasionally attacking American bases in the Marianas.

The Joint Chiefs of Staff decided that Iwo Jima must be captured. Beginning on February 19, 1945, three U.S. Marine Corps divisions landed on the beaches, initiating 36 days of fierce combat in one of the bloodiest battles of World War II. By March 26, the campaign was officially over and the island was under American control.

Iwo Jima's connection to nuclear weapons began early—it had a contingency role in the atomic bombings of Hiroshima and Nagasaki. Navy engineers built a backup loading pit on the island. If either *Enola Gay* or *Bock's Car* had had trouble after leaving Tinian, their orders were to land on Iwo Jima and transfer the bomb to a standby B-29, which would continue on to Japan.⁴

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AS THE U.S. MILITARY OCCUPATION OF Japan came to a close in 1951, the two countries signed a security treaty granting the United States wide-ranging rights to station its land, sea, and air forces "in and about Japan." Not all of what had been pre-war Japan was granted full sovereignty. Okinawa, the Bonins, and the Volcano islands remained under American control, although Washington acknowledged Japan's "residual sovereignty."⁵

After the war, more than 100 descendants of the original Western settlers returned to Chichi Jima from Japan,

where they had been relocated during the war. Iwo Jima was kept unpopulated. The American descendants on Chichi Jima petitioned Admiral Radford for citizenship; they also wanted assurances that the Bonins would remain under U.S. control. The U.S. Navy established a small presence on March 1, 1952 to administer the island.

Chichi Jima became a port of call for submarines and Iwo Jima became an outpost of the Far East Air Force. During the mid-1950s, President Eisenhower approved extensive nuclear deployments to the Pacific, and Chichi Jima and Iwo Jima became nuclear bases. Defense Secretary Charles E. Wilson wrote to Secretary of State John Foster Dulles in 1955, broaching the subject of dispersing a small number of atomic weapons to the Bonin and Volcano islands. On November 18, Dulles responded that he had no objection, adding that he assumed that storing atomic weapons there would not prevent the later resettlement of Bonin island inhabitants.⁶

According to a declassified memorandum for Admiral Radford, who had become chairman of the Joint Chiefs of Staff, "On 6 February 1956, the Chief of Naval Operations [Adm. Arleigh A. Burke] stated that one weapon with core was placed in storage on Chichi Jima." This date fits exactly with the "Bomb" entry in Appendix B, which lists "February 56" as the date of "Initial Entry."⁷

That same month, "non-nuclear bombs" (most likely Mk6s of Fat Man design, without their fissile cores), were sent to Iwo Jima. The caves on Chichi Jima and the Central Air Base on Iwo Jima were now nuclear fallback positions should the Soviet Union invade or destroy the Japanese mainland.

We do not know how many bombs were deployed to Chichi Jima, nor do we know the reason for their quick withdrawal in May 1956. Perhaps the presence of a few nuclear bombs was as a stand-in for missiles that had not yet arrived. In March, W5 nuclear warheads for the navy's Regulus mis-

siles were brought to Chichi Jima. For the next eight years, Regulus warheads (and presumably, missiles) were hidden in the island caves.

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THE REGULUS WEAPON SYSTEM WAS bizarre in concept and execution, and not much to look at. "The ugliest submarine I had ever laid eyes on," one crewman wrote, describing his initial impression of the U.S.S. *Grayback*. The 500-mile-range missiles were stored in large, watertight hangars atop the submarine, something like two horizontal grain silos side by side. Submarines had to come to the surface to fire the 42-foot-long missiles. The turbojet-equipped cruise missiles were backed out of the hangar, placed on a rail launcher, raised, and fired.⁸

The Regulus was originally deployed in 1955 aboard a cruiser, the U.S.S. *Los Angeles*, and on an aircraft carrier, the U.S.S. *Hancock*, but it was in its submarine configuration that the missile provided nuclear war planners with the capability to threaten Soviet targets from a relatively invulnerable platform. Five Regulus subs—*Tunny*, *Barbero*, *Grayback*, *Growler*, and *Halibut*—conducted 41 nuclear patrols in the northern Pacific from 1959 through 1964. The missiles, which were initially equipped with W5 120-kiloton nuclear warheads, were later upgraded, beginning in the fall of 1958, with two-megaton W27 thermonuclear warheads.

Grayback and *Growler* carried four missiles each, *Tunny* and *Barbero* each carried two, and the nuclear-powered U.S.S. *Halibut* carried five. On 90-day patrols, it was necessary for the diesel subs to make fuel stops at either Midway Island or Adak, Alaska, depending on their operating area.

To fire a "Blue Bird," as the missiles were called, the submarines not only had to surface and be within range of their targets, they also had to coordinate with two accompanying attack submarines that would position themselves along the missiles' flight path to

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transmit guidance instructions.

The navy required at least four Regulus missiles to be on station at all times. This meant that either the two-missile boats deployed together, or the others deployed on their own. Many submarines conducted "back-to-back" patrols from Adak to maintain their rigorous schedule, rather than return to Pearl Harbor.

According to a former Regulus submarine captain and Pacific Fleet nuclear war planner, Chichi Jima "figured in the strategic planning as a 'reload point' for Regulus submarines that had launched their missiles, and were available for another strike." The assumption was that the major U.S. bases in Japan would be destroyed in a nuclear war, along with the bases at Pearl Harbor, Guam, and Adak. Chichi Jima, a small base, might evade such a calamity and be a safe harbor for the surviving submarines to reload, planners thought. Spare parts and provisions for the submarines were also kept in the caves.

Iwo Jima served a similar role in nuclear war plans. Detachment One of the Seventh Tactical Depot Squadron established a nuclear storage site at Central Air Base, and complete bombs with their nuclear cores were introduced in September 1956 (they remained on the island until December 1959).⁹ Non-nuclear bombs (bombs without their fissile cores) were introduced in February 1956 and remained until June 1966.

Quietly tucked away from the bigger and busier U.S. airbases at Guam and Okinawa, and with no assigned fighter or bomber units, Iwo Jima served as a recovery facility, according to a former

air force officer assigned to the island. After bombers dropped their bombs on targets in the Soviet Union or China, they were to fly to Iwo Jima, where they would be refueled, reloaded, and readied to deliver a second salvo.

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WITH THE INTRODUCTION OF POLARIS missiles and submarines in 1960, the days of the Regulus were numbered. On December 26, 1964, the U.S.S. *Daniel Boone* left Guam armed with 16 Polaris A-3s for its first Pacific patrol, just five months after the *Halibut* sailed into Pearl Harbor on July 14, ending the Regulus era.

Between October and December 1964, the last Regulus warheads were removed from Chichi Jima. Its role in nuclear war plans was coming to an end (though there was an inexplicable 15-month deployment there beginning in October 1964 of W30 nuclear warheads for the navy's surface-to-air Talos missiles). New pressures to return the Bonins and Volcanos to Japan were intensifying.

The growing submarine force, and the introduction of multiple-warhead missiles, caused huge increases in the numbers of long-range weapons, lessening the need for forward bases. Still, war planners were not ready to close the books on their two islands. A 1964 State Department cable to the American embassy in Tokyo underscored their importance: "At [the] present time there is a naval installation in use on Chichi-jima. Bombs are required for additional military functions, including special weapons storage, SAC diversion and refueling bases, and possible advance submarine bases, training areas,

NSA and CIA activities."¹⁰

Despite the military's arguments, the Johnson administration gradually came to the realization that it would have to return Chichi Jima and Iwo Jima to forestall reversion of the more important Okinawa bases. President Johnson also wanted Japan's tacit support for U.S. military operations in Southeast Asia. During a summit meeting with Japanese Prime Minister Eisaku Sato on November 14 and 15, 1967, Johnson agreed to talks on the "early restoration" of the Bonin and Volcano islands to Japanese administration.

Secretary of State Dean Rusk had held talks with his Japanese counterpart, arguing for the right to retain Iwo Jima lest Beijing or Moscow "miscalculate," thinking that the United States was leaving the western Pacific. The Japanese rejected the idea of the United States retaining the islands, although in the end, Sato agreed that an agreement on reversion would take U.S. security interests into account.¹¹

What precisely were those interests and what demands did the United States make on the Japanese? The U.S. Navy was pushing for the right to use Chichi Jima for contingency storage of nuclear weapons. Days before Johnson met with Sato, the Joint Chiefs informed the State Department that any agreement on the Bonins must take into account the "contingency of need for storage of ASW (antisubmarine) weapons in the event of prospective enemy submarine threat and unavailability of nuclear storage" on Okinawa or Guam. In December 1967, during the negotiations, the U.S. ambassador to Japan, U. Alexis Johnson, told the State Department that he would try to get something in writing from the Japanese on the subject of nuclear contingencies, so "successive Japanese governments can be advised of [the] U.S. position."¹²

The final outcome of these negotiations is far from clear. Sato and Foreign Minister Takeo Miki had already told the Japanese parliament that the return of the Bonins had nothing to do with nuclear weapons. Miki feared



that a confidential agreement would leak and make the eventual reversion of the Ryukus, where Okinawa's nuclear role was no secret in Japan, all the more difficult.¹²

The final agreement included a secret annex, and its exact wording remains classified. A cable from the U.S. embassy in Tokyo, dated December 30, 1968, is titled "Bonin Agreement Nuclear Storage," but the National Archives contains a "withdrawal sheet" for an accompanying Tokyo cable dated April 10, 1968, titled "Bonins Agreement—Secret Annex," and located in the same file. We now believe that the United States and Japan signed a "Nuclear Storage Agreement" on April 10, 1968.

Presumably, that understanding met the Pentagon's minimum demand for the right to store nuclear weapons in a military emergency, although whether it included anything else remains to be seen. In June 1968, the Bonin and Volcano islands were returned to Japan, becoming part of Ogasawara village in the Tokyo Metropolitan Prefecture.¹⁴

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IF THERE IS ANY COUNTRY THAT HAS HAD a "nuclear allergy," it is Japan. Its defeat in World War II and occupation by the United States led to Article 9 of its 1947 constitution, in which Japan renounced war and the maintenance of "land, sea, and air forces." The Dict has interpreted Article 9 as permitting military alliances deemed necessary for national security, but even in that case, there is an unyielding rejection of nuclear weapons. The cornerstone of that rejection: the three non-nuclear principles—"no production, no possession, and no introduction." These principles date from 1959, when Prime Minister Nobusuke Kishi stated that Japan would neither develop nuclear weapons nor permit them on its territory.

But when these non-nuclear principles were being enunciated, Japanese territory was already fully compromised, in spirit if not in letter. Although actual nuclear weapons were

The "NRDC Nuclear Notebook" by William M. Arkin and Robert S. Norris, which normally appears on these pages, was pre-empted by this Arkin/Norris/William Burr article. "Nuclear Notebook" will resume in the March/April issue.

removed from Iwo Jima at the end of 1959, Chichi Jima, which had the same legal status, continued to house warheads with their nuclear materials until 1965. And Okinawa, of course, was chock-a-block full of nuclear weapons of all types until 1972. Nuclear-armed ships moored at U.S. Navy bases in Japan, and others called at Japanese ports without restriction.

Yet, as compromised as it was, Japan's non-nuclear policy was not wholly fictitious. The Pentagon never commanded nuclear storage rights on the main islands, and it had to withdraw nuclear

weapons from Okinawa in 1972.

Historical circumstances forced Washington to accept some constraints. First, the traumatizing experience of Hiroshima and Nagasaki created such strong feelings among the Japanese about nuclear weapons that every administration in Tokyo and Washington had to make accommodations. Second, Tokyo wanted to immunize the nation from the potential effects of a nuclear war between the superpowers. Such a goal was difficult for any nation to advance during the Cold War. For the Japanese nation and Japanese political leaders, the elaborate stratagem maintained the illusion of nuclear purity. Japanese political leaders could either deny everything or plead ignorance.

Undoubtedly, Japanese rulers firmly believed that the compromises they made with Washington were necessary for Japanese security during the dark days of the Cold War. Through it all, nonetheless, "non-nuclear Japan" was a sentiment, not a reality. ■

1. Far East Command Headquarters, "Standing Operating Procedure No. 1 for Atomic Operations in the Far East Command," November 1, 1956. We thank Hans M. Kristensen of the Nautilus Institute for providing a copy of this document, which is also posted on the Nautilus Web page (nautilus.org).

2. John Welfield, *An Empire in Eclipse: Japan in the Postwar American Alliance System* (London: The Athlone Press, 1958), esp. pp. 252–66; Hans M. Kristensen, *Japan Under the Nuclear Umbrella: U.S. Nuclear Weapons and Nuclear War Planning in Japan During the Cold War* (Berkeley, Calif.: Nautilus Institute, July 1990).

3. Stephen Jurika, Jr., ed., *From Pearl Harbor to Vietnam: The Memoirs of Admiral Arthur W. Radford* (Stanford, Calif.: Hoover Institution Press, 1980), pp. 150–54.

4. Leslie R. Groves, *Now It Can Be Told: The Story of the Manhattan Project* (New York: Harper, 1962), p. 281.

5. See Walter LaFeber, *The Clash: U.S.-Japanese Relations Throughout History* (New York, N.Y.: Norton, 1987), pp. 283, 288–90.

6. Chairman's Staff Group to Admiral Radford, "Dispersal of Atomic Weapons in the Bonin and Volcano Islands," June 4, 1967, National Archives, Record Group 218, Chairman's Files, Admiral Radford, Box 44, File 476.1.

7. *Ibid.*: Office of the Assistant to the Secretary of Defense (Atomic Energy), *History of the Custody and Deployment of Nuclear Weapons: July 1945 through September 1977*, February 1978, Appendix B. Portions of the *History* are available on the National Security Archive Web page (gsa.edu/nsarchive/). The full document is available in

the Office of the Secretary of Defense's 370A Reading Room, Room 2C757, the Pentagon.

8. David K. Stumpf, *Regulus: The Forgotten Weapon* (Paducah, Ky.: Turner Publishing Co., 1966).

9. See U.S. Far East Command, "Standing Operating Procedure No. 1, Appendix I to Annex D 'Atomic Weapons Accounts,'" (revised January 1957).

10. State Department cable 371 to U.S. Embassy Tokyo, August 6, 1964, National Archives, Record Group 59, Subject-Numeric Files, 1964–66, File "POL 19 Bonin Is." For other documents on the role of the Bonins in Pentagon planning, see the National Security Archive's Web page (gsa.edu/nsarchive/).

11. For the Johnson-Sato summit, see Michael Schaller, *Altered States: The United States and Japan Since the Occupation* (New York, N.Y.: Oxford University Press, 1967), 203–04. For Rusk's meeting with Takeo Miki, see Memorandum of Conversation, "Ryuku Islands," September 16, 1967, National Archives, Record Group 59, Subject-Numeric Files, 1967–69, File "POL 19 Ryu."

12. State Department cable 65120 to U.S. Embassy Tokyo, November 5, 1967 and Tokyo Embassy cable 4333 to State Department, December 29, 1967, National Archives, Record Group 59, Subject-Numeric Files, 1967–69, File "POL 19 Bonin Islands."

13. Tokyo Embassy cable 4333 (*ibid.*).

14. U.S. Embassy Tokyo telegram 2370, "Bonin Agreement Nuclear Storage," December 30, 1968, National Archives, Record Group 59, Subject-Numeric Files, 1967–69, File "POL 19 Bonin Islands." This file includes the withdrawal sheet for the "Secret Annex."