A Tale of Two Semi-Submersible Submarines

Jim Anderson, LCDR USNR (ret), and Dirk A.D. Smith

"Codenamed 'GIMIK' and 'SKIFF' these vessels were the infiltration assets for a clandestine operations program..."

In the summer of 1986, a reader of *Warship International* posed a question to the well-known naval historical journal seeking to confirm the identity of a small vessel on display at the Battleship Cove Naval Heritage Museum in Fall River, Massachusetts. Back then, the museum was describing the boat as a Japanese suicide motor boat that had been found abandoned in Okinawa. But a number of anomalies made this unlikely: the boat had US-manufactured fittings, instruments, and motor, and it had no components that could readily be identified as Japanese.[1]

Twenty years later, I happened across a remarkably similar vessel on display at CIA Headquarters in McLean, Virginia. Hundreds, possibly thousands, of people pass this vessel daily without giving it much thought, but my happening upon it brought to mind the one at Battleship Cove and spurred me to try to answer the question of its provenance posed in 1986. Coincidentally, my coauthor was researching the vessel as well, following the passing of his father, a former CIA officer. Together we discovered that the boats at CIA and Fall River are actually the same design.

The agents would exit the boat's escape hatch while it was submerged at shallow depth, float to the surface, inflate a nylon boat, and row ashore.

GIMIK and OSS Project NAPKO

The question of the provenance of the boat on display in Fall River has proven to be one of the more enduring mysteries of World War II. As it turns out, the boat is one of a pair of two-man submersibles designed and built for the OSS (Office of Strategic Services, CIA's precursor) in May 1945.[2] Code-named "GIMIK," these vessels were the infiltration assets for a clandestine operations program called Project NAPKO, devised and headed by Colonel Carl Eifler.[3]

NAPKO's purpose was to recruit and train 55 Korean Americans and Korean prisoners of war for infiltration into Japanese-occupied Korea, and ultimately into Japan itself.[4] Their mission was to collect intelligence and conduct sabotage in advance of Operation Olympic, the planned US invasion of the Japanese home islands in November 1945. Korean POWs were targeted because Korea was then under Japanese occupation (and had been since 1905[5]), and Colonel Eifler correctly believed that Korean nationals who had been inducted into the Japanese military—and subsequently captured by US forces during the Pacific campaign—would be inclined to turn against their colonial masters in order to help shorten the occupation of their country.[6]

NAPKO's Concept of Operations

NAPKO was an ambitious plan. It envisioned the creation of 10 teams of Korean-born agents (one to five per team) that would penetrate into Korea. Once in place, each team would establish an agent network—built on their own pre-existing relationships and contacts—to collect intelligence and transmit this information back to US radio stations established in Manchuria and the Philippines specifically for Project NAPKO.

Because these agents were Korean natives, the teams were largely free to choose their own penetration points and operating areas.[7] It should be noted here that according to OSS veteran former US Navy Ensign George McCullough, pilot of the first GIMIK boat, these teams believed they were training for infiltration missions into Japan; however, all OSS documentation the authors have reviewed only discusses plans to infiltrate the Korean Peninsula.[8] Nevertheless, based on ENS McCullough's memoir, the authors believe OSS planners intended to infiltrate Japan as well, and that further research may provide documentary evidence.

In the initial phases of the plan, the agent teams were to be given thorough OSS training. The teams were kept separate from each other, and no group was to know of the others' existence. Eifler and his planners assumed that some of these teams would be lost by enemy action; based on previous OSS experience, they anticipated that about 70 percent of them would remain undetected. Assuming that seven teams managed to become operative, Eifler further expected that one or more would surpass the others in developing their operation. The group showing the greatest progress would be exploited the most.[9]

Eifler further assumed that after the teams became operational, some of them would come to the attention of Japanese intelligence, with the possibility that elements of or possibly entire teams would be apprehended and eliminated. However, with enough teams operating, some would surely gain sufficient hold over the infiltrated territory such that Japanese counterintelligence could not be effective against the overall operation.[10]

Following training and the issuance of equipment, the NAPKO teams were to be moved to a forward base designated by the US Navy, from which point they were to embark in a submarine. The submarine would then transport the team to the immediate vicinity of the area selected for landing. The Korean agents were to be landed via one of two methods, both of which were designed to minimize the recently developed threat of radar.

- In the first method, the agents would disembark from the submarine while it was still submerged. One of the agents would carry a small nylon boat as part of his equipment load. The agents would exit the boat's escape hatch while it was submerged at shallow depth, float to the surface, inflate the nylon boat, and row ashore;

- In the second method, the agents would be landed from a submersible craft transported by the submarine, i.e., GIMIK. In the words of the original plan proposal, "A small powercraft is being developed with a range of approximately one hundred miles, which can

carry an operator and two agents. This craft can be submerged in its entirety to the water's surface, whereby producing a minimum surface to reflect radar. This craft can be carried by submarine to the general vicinity of landing." The submarine would then surface outside the intended landing area to allow the team to embark GIMIK, and would then submerge to allow the infiltration craft to float off the submarine and then proceed to the landing site.[11]

Immediately upon landing, agents' equipment, radio, and money, which had been packed in a watertight container, was to be buried. In missions using the inflatable boats, the boats were to be buried in a different location from where these items were left; however, if additional water obstacles such as rivers and swamps were anticipated, the team could carry the boats for the first few days into the mission.[12]

The agents' next move after arrival in the area of operations was to contact underground members already known to them. Once contact was established and it was safe to do so, the buried items would be retrieved. As soon as possible thereafter, encrypted radio contact was to be established with listening stations established to support the NAPKO project. Two such stations were to be established to provide redundancy and backup in case of technical failure, which was a common problem with long-range radio at the time—one was to be in northern China, and the other in the Philippines.[13]

Intelligence or other information of urgent significance to the Allied command or to OSS operations was to be immediately communicated to the OSS. The agents were then to establish a contact point whereby personnel already in Korea could be withdrawn to Allied forward areas, trained, and then re-infiltrated back into Korea, or where scientists or other personnel with high-value information could be withdrawn from Korea for debriefing. This line of withdrawal could also be used for smuggling out of Korea American fliers who had been shot down.[14]

Of the ten initial missions contemplated under NAPKO, only two actually made it to the operational planning stage.

After initial set-up, the agents were to locate an area that was heavily anti-Japanese, screen it, eliminate any person in the vicinity who was not anti-Japanese, and then set up training schools. The more isolated this district, the better. Prime consideration was to be given to small islands just offshore, with the rationale being that many of these islands were sparsely inhabited by poor fishermen who, it was believed, would be very anti-Japanese due to the oppression reportedly directed against them at the time. Mountainous areas of the country were another target, on the thinking that large areas of territory could be brought under the agent network's control or influence. Once schools were established in these areas, Koreans from all walks of life were to be recruited, trained, and put into operation.[15]

It was envisioned that this organization might ultimately control whole areas inside Korea, particularly rural areas and coastal offshore islands. Once the first areas were established and controlled by the Korean agents, American officers would move in to act as liaison between the agents and US military authorities and to guide and run the organization inside Korea for the OSS. Once set up, the organization was to transmit actual sabotage orders as well as orders for the introduction into Korea of guns and ammunition in quantities sufficient for active or underground resistance, in the same manner as had occurred in other occupied and enemy countries, up to and including actual revolution.[16]

Operational Mission Plans

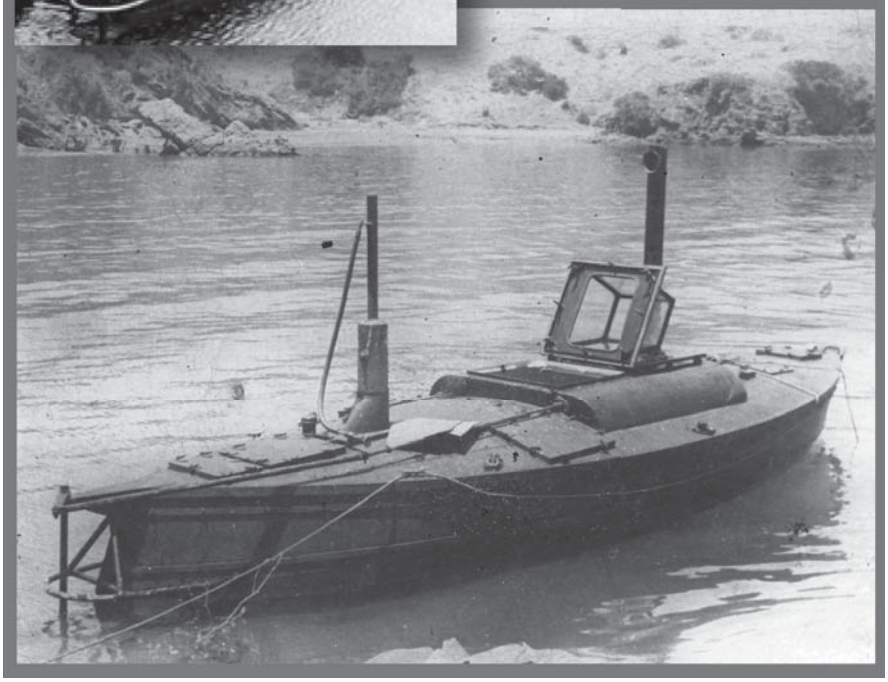
Of the 10 initial missions contemplated under NAPKO, only two actually made it to the operational planning stage. These were codenamed "Kinec" and "Charo."[17] Both were very similar in concept, differing primarily in intended points of penetration and operating areas. Kinec envisioned landing five agents at Chemulpo Bay, about 20 miles outside Seoul on the country's west coast; Charo was focused on Pyongyang following penetration via Wonsan and utilized three, rather than five, Korean agents.[18] Typical of NAPKO missions, the teams were to carry minimal equipment and supplies: 100,000 yen, a radio, appropriate clothing for passing as locals, and a Japanese-manufactured shovel for burying the team's equipment after landing.[19]

Once ashore, the team was to commence activities in Seoul, where a team leader, native to that city, had an established business in place

and numerous business contacts that could serve as a ready-made agent network. After the first contacts in Seoul were made, word was to be sent through the entire agent network that contact had been made with the United States. The system was then to be expanded with additional contacts established through key employees in the team leader's branch offices. In cases of emergency, the team leader's business agent in Seoul could furnish additional finances and equipment for operations. Additional personnel were to be recruited by the original group and then formed into multi-celled operating units.[20]

GIMIK under construction (above) and after launch (left) (CIA photographs, 1945).

Below: "Gizmo #1," as piloted by ENS. McCullough; photo by George McCullough (1945), courtesy of Michael McCullough.



The Boats

NAPKO's original plan called for three boats; however, only two were actually built, codenamed GIMIK, and nicknamed "Gizmo #1" and "Gizmo #2 by their operators.[21] They were almost certainly built by John Trumpy and Sons of Camden, New Jersey, a well-known yacht builder famous for wooden boat designs and high quality workmanship. Each cost $20,000 (approximately $266,000 in 2013 dollars).

GIMIK had an operating radius of only 110 miles and was intended to be transported as deck cargo on a submarine to a point off the enemy coast. From there, its operator and a single infiltrator passenger would go ashore. To facilitate their carriage as underwater deck cargo, a boxlike hangar was constructed on the submarines, each of which served as a mothership. These hangars, rectangular and made of two-inch thick steel, were nicknamed "coffins"—much to

the discomfort of the boats' operators.[22]

The boat had three operating modes—surface, semi-submerged, and fully submerged. When operating in the infiltration mode, the craft ran as a semi-submersible with its deck awash until reaching a point close to the landing area. To further reduce detectability, the boats' snorkel masts were wrapped in steel wool to break up possible enemy radar returns.[23] Upon arrival, the crew would submerge the empty vessel to a depth of up to 30 feet, where it could remain underwater for a period of three to four weeks while its crew was ashore carrying out their mission.[24]

The two GIMIK boats were delivered to the OSS on 10 June 1945. Following delivery, they were used to train Project NAPKO crews at the OSS training facility at Catalina Island, off the coast of southern California.[25] The boats were assigned a staff of five US Navy personnel to operate and maintain; "Gizmo #1" "Gizmo #2" were piloted by ENS George McCullough and ENS Robert Mullen, respectively. Maintenance of both boats was the responsibility of Chief Machinist's Mate Carlos Sandoz, supported by two seamen whose names have been lost to history. Over the summer of 1945, NAPKO's GIMIK crews—with Korean operatives as passengers—made weekly runs to penetrate the harbor defenses of both Newport Beach and Los Angeles, remaining undetected every time. They also landed agents at Newport Beach and San Clemente during operational workups.[26]

Preparations to execute NAPKO continued until the scheduled departure date of 26 August, when Colonel Eifler and his teams were to depart for their overseas base, probably located at Naha, Okinawa.[27,28] In summer 1945, Okinawa was the closest Allied-held territory to Japan; following occupation, it served as a major advance support base for Allied forces in preparation for the intended invasion of the Japanese mainland.

Following the end of hostilities, the OSS was disbanded and both GIMIK boats were turned over to the US Navy.

After arrival at Okinawa, Eifler and his Korean agents would board a US Navy submarine and rendezvous off the coast with GIMIK and its mothership, which had been previously staged at Okinawa for the operation. At the drop-off point, Eifler would presumably remain onboard the submarine while the agents would board a GIMIK boat and depart the mother submarine when it submerged beneath them, then head toward the landing site on the Korean coast. Japan's surrender announcement on 15 August 1945, of course, put an end to NAPKO's deployment.[29]

Postwar

Following the end of hostilities, the OSS was disbanded and both GIMIK boats were turned over to the US Navy. ENS McCullough states in his memoir that both boats were last seen sitting on a dock at the US Naval facility at Naha, Okinawa. At least one GIMIK lay forgotten until it was found in 1972. Based on the 1986 *Warship International* article, it was originally thought that only this boat survived. Recent research, however, leads us to believe the other was in storage at the US Naval Base in Newport, Rhode Island. It is currently unclear to the authors which boat is on display at Battleship Cove.

CIA's SKIFF Semi-submersible

After inheriting GIMIK, the Navy had no interest in further developing the project. Although the boats themselves were forgotten and abandoned, documentation pertaining to GIMIK and Project NAPKO was not. When the CIA was created in 1947, documents and records pertaining to the OSS were incorporated into the new agency's body of corporate knowledge. The documentation lay dormant for a few years then was resurrected by CIA's TSS/WAD (Technical Support Staff/Water-Air Division) sometime in the early 1950s. Two further craft, known by the project name of "SKIFF", were built by Trumpy Marine (formerly John Trumpy and Sons, by then relocated to Annapolis, Maryland). Both SKIFF prototypes were complete by 1953 and water-tested on Chesapeake Bay.

Even in the benign environment of the Chesapeake Bay, testing the SKIFF was a fairly dangerous operation. One might expect the greatest risk to come from the actual clandestine operation conducted while the SKIFF was secreted at the bottom of some remote cove (a notion reinforced by the provision of machine guns in the boats' loadout), but according to SKIFF Project Manager Dawson C. Smith, this was not the case. Rather, the SKIFF itself was dangerous, using, as it did, a gasoline engine rather than a diesel one. Gasoline fumes are heavier than

There was a moveable obstruction: the crewman, who was shot through the air. He went straight up, like a missile from a submarine.

SKIFF in trial run; undated CIA photograph.

air, whereas diesel fumes are lighter; thus, should a fuel leak occur in the SKIFF, gasoline fumes would settle in the bilge (lowest area of a boat) and collect there, producing a risk of explosion.

At the time it was constructed, all small marine engines were gas-powered; safer marine diesel engines would not take over the small marine engine market until the 1980s. Those involved in the SKIFF project developed procedures and provided warnings throughout the SKIFF's documentation to prevent a gas fume explosion. One procedure, for example, was to open valve #15 "for thirty seconds until the gas odor disappears," which caused compressed air to flush any fumes from the engine compartment through a tube that exited the boat.[30] As Smith explained, "I wrote the evaluation of the tests I ran on these submersibles and recommended that they *not* (emphasis his) be used operationally, except for highly special missions. They were much too hazardous, even though technically remarkable."

During one test, a single crewman was in SKIFF, standing in the open deck hatch. Unbeknownst to all present, a fuel leak had occurred and fumes had gathered, but the crewman had neglected to turn valve #15. With the flip of a switch, the ignition of the engine, or some other spark-generating event, the fumes ignited. Due to the vessel's small size, there was little space for the explosion to expand—except for the open deck hatch. Thus, as powder ignited deep in the breech of a cannon that expands dramatically through the barrel, the force in the small SKIFF sought the open hatch—and, as with a cannon, there was a moveable obstruction: the crewman, who was shot through the air. He went straight up, like a missile from a submarine, and eventually landed in the water nearby. Remarkably, he was plucked from the water unharmed, except that he had lost all his body hair. As Smith described the scene, other than his swim trunks, he was "nude as a sausage." Smith also noted how fortunate it was that he had been standing straight up and well centered in the opening, which was exactly the same width as his shoulders; if he had been lower, perhaps with one shoulder under one side of the opening, he "would have left more than his hair in the hatch."

Operational Mission Plans

A Freedom of Information Act (FOIA) inquiry associated with this article provided no details on the intended missions and operational planning for this vessel. That SKIFF was intended for the same sort of mission as GIMIK is beyond dispute, and the fact that the boats' normal equipment loadout included two machineguns supports the notion that they were intended to operate in hostile waters.[31] One SKIFF was kept on the US east coast, while the other was deployed to Far East (FE) Operations in Saipan.

Available evidence indicates SKIFF came close to operational use on at least two occasions. An internal CIA memorandum dated 18 August 1959, stated "One of these boats was shipped to FE for operational use. It is understood that it was never used operationally, and has since been scrapped in the field. The other boat has been stored and maintained by WAD (Water-Air Division) and

recommissioned on two occasions for actual operations. The boat was shipped to the field, but on both occasions, the operation was cancelled."[32]

One intriguing possibility that did appear in the FOIA documents was the title "Bay of Pigs," which appeared at the top of an otherwise completely redacted briefing slide. There is currently no historical documentation available to support the notion that SKIFF was intended to support that operation, but—had it been used—it would likely have been well-suited for the task.

OSS GIMIK and CIA SKIFF Compared

In terms of actual design, GIMIK and SKIFF are almost identical in every respect, save a few small details. Their hulls, layout, and dimensions are virtually identical, visually distinguishable mainly by differing cockpit canopies, snorkels, and small external fittings.

Crew Compartment

The crew compartment is amidships (middle) with a bolted access hatch on the after (rear) bulkhead (wall) leading to the engine compartment. Access to the crew compartment is through a quick acting hatch operable from above or below. A Plexiglas dome is installed on SKIFF to provide vision for the operator is located in the after end; GIMIK utilizes a framed Plexiglas hood. A 34" and a 47" snorkel are provided for fresh air, the longer for operation in heavy seas (over six feet high). GIMIK has a single steel snorkel pipe.

SKIFF also appears to have come close to operational use, but at least two missions for which it was deployed were cancelled.

Engine Compartment

The engine compartment on both vessels contains the engine and battery with the gasoline tank at the after end. The engine is sealed in a large steel pipe with an access hatch in the upper surface. The forward end of this pipe forms part of the aft crew compartment bulkhead. The entire compartment is watertight, a critical aspect of the design since it protects the engine when the ballast and crew compartment are flooded and the vessel is cached (hidden) underwater, awaiting return of the operator and agents. The fuel tanks are aft of the engine, while a small stack aft of the cockpit provides both air intake and exhaust for the engine. The air pump is operated from a 3-belt V-type drive attached to the propeller shaft. Trim tanks are located at each end of the boat and can be operated while underway, the boat being designed to run awash.

Ballast Compartments

The ballast system has three components: the forward trim compartment, the main ballast compartment, and the after trim compartment. A ballast pump, belt-driven from the shaft, is located in the after end of the main compartment. The purpose was to admit sea water to increase its weight, which would cause it to settle lower in the water, changing the SKIFF from surfaced to semi-submerged mode. On each side of the engine compartment is an air flask for blowing ballast, thus raising it back to buoyant mode. A third air flask for purging explosive gases from the engine compartment is fitted in a wall at the after end of main ballast compartment. A watertight aluminum hatch is fitted over the engine compartment on SKIFF; the hatch on GIMIK is made of steel.

Power Plant

SKIFF was powered by a Universal Atomic 4 gasoline engine. At 64.46 cubic inches and 25 horsepower, it was no "muscle machine." The engine was, however, a reliable and proven four-cylinder engine that was used in close to 40,000 sailboats between 1947 and the end of production in 1984 (the author's last sailboat was also equipped with one of these engines) and perhaps 20,000 are still in use today.[33] Another aspect that attracted the CIA was that the Atomic 4 was a descendent of the earlier Utility Four—used heavily by the US Navy during World War II, before it was replaced by the Atomic Four in 1947.[34] GIMIK was powered by a Gray Marine 4-cylinder very similar to the Atomic Four.[35]

How They Worked

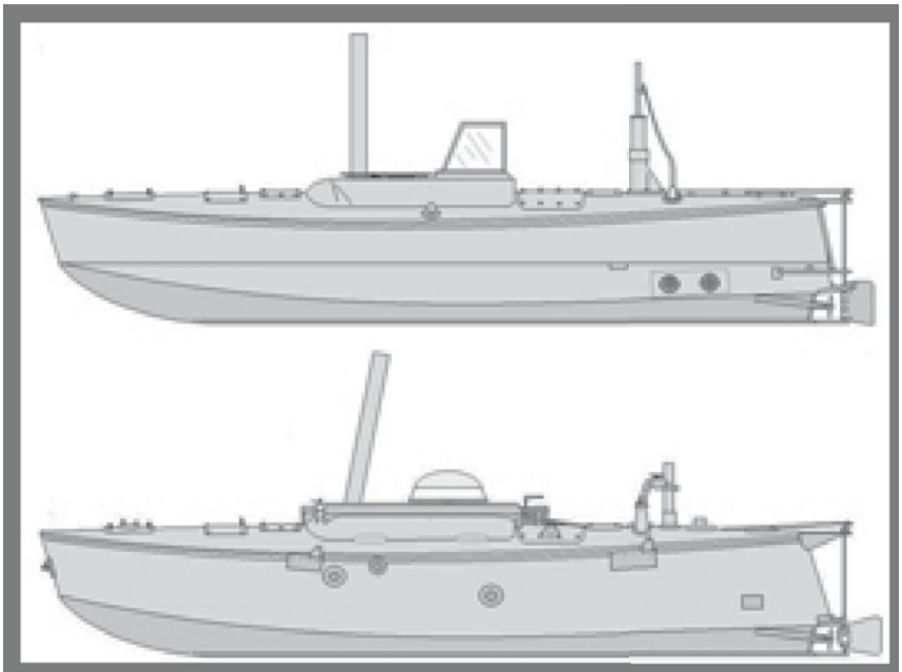
Both vessels were operated similarly, the primary difference being the type of mothership employed to transport them to their drop-off point. GIMIK was to have been transported by submarine while SKIFF was to have been carried on a surface ship, hidden on its deck. In both cases, the mothership transported the vessel to within 50 miles of the objective. GIMIK was launched by simply submerging the parent submarine to allow it to float off, while SKIFF was lowered into the water by a crane. The boat's operator, one or two agents, and equipment would then motor off. If the risk of detection was

low, the boat could be operated in a surfaced mode, thereby increasing speed and range. If risk of detection was assessed to be high, the operator would trim the boat lower in the water to the point of running with its deck awash in a semi-submerged mode, which took about 14 minutes.

While underway, the operator had to monitor the attitude of SKIFF much as an aviator does an airplane. To ensure proper trim—neither up nor down at the bow, nor listing to port or starboard—he had to work a system of valves to shift water ballast between four trim tanks as needed. According to the manual, SKIFF had to be run between zero and two degrees "up" angle at the bow.[36]

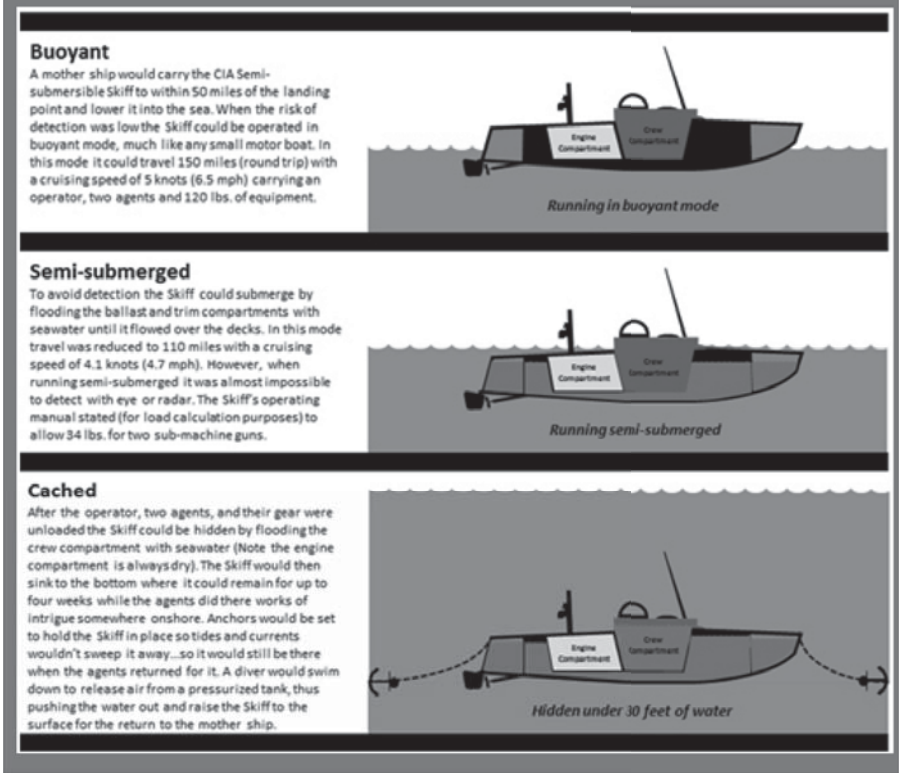
Once the crew and gear were unloaded on shore at the landing site, the operator would take SKIFF to a location offshore that was deep enough—up to a depth of 30 feet—that tidal variations would not permit its detection. The procedure to then secure SKIFF for caching underwater was a 19-step process.[37] Additional suggestions included securing a line to SKIFF and swimming ashore to then secure the other end with a spike, something of a Hansel-and-Gretel approach to finding one's way home again, and to secure SKIFF to the bottom so it would still be there a month later.

To retrieve SKIFF from the bottom, someone had to jump in and swim down 30 feet without scuba gear, locate it, and raise it by purging water from the ballast tanks and crew compartment with compressed air from the tanks mounted in the stern. When SKIFF rose high enough for the crew hatch to be above water, the crew could re-enter, start the engine, and then make their way back to the



GIMIK (on top) comparison with SKIFF

Below: SKIFF's three operational modes.



OSS GIMIK and CIA SKIFF Specifications Compared		
	GIMIK	**SKIFF**
Builder	Almost certainly John Trumpy and Sons, Gloucester (Camden), New Jersey	Trumpy Marine, Eastport (Annapolis), Maryland
Length	19 feet, 2 inches	19 feet, 0.5 inches
Beam	5 feet, 3 inches	5 feet, 3 inches
Height	6 feet, 9 inches	6 feet, 9.5 inches
Displacement	3,650 lbs.	3,650 lbs.
Engine	Gray Marine 4-cylinder gasoline-type with Autolite sparkplugs, 25 h.p.	Universal Atomic 4, 25 h.p.
Performance		
Speed, surfaced	4.1 knots	5 knots
Speed, surfaced, emergency	unknown	5.3 knots
Speed, surfaced, economical	2.5 knots	5 knots
Speed, awash	4.7 knots	4.7 knots
Speed, awash, emergency	unknown	4.7 knots
Speed, awash, cruising	unknown	4.1 knots
Range, surfaced	unknown	150 nautical miles
Range, awash	110 nautical miles	110 nautical miles
Crew	1 agent-operator, plus 1 or 2 agent/passengers	1 agent-operator, plus 1 or 2 agent/passengers
Cargo	110 lbs. of equipment	120 lbs. of equipment

mothership—a trip that could take 10 hours or more.[38]

Why were they not used?

All available documentation indicates that the NAPKO Project would have been executed and GIMIK would have been deployed in November of 1945 had the Second World War not ended when it did, two months before. SKIFF also appears to have come close to operational use, but at least two missions for which it was deployed were cancelled. Although technically feasible, SKIFF appears to have been overtaken by technological advances in intelligence collection in the late 1950s as well as proven highly undesirable by basic safety considerations.

By the time SKIFF terminated as a program in 1959, Project AQUATONE, the U-2 aerial reconnaissance program, was already well-established, providing high-quality photographic intelligence of Soviet targets to US decisionmakers.[39] Project OXCART, CIA's A-12 developmental program to replace the U-2 (which would evolve into the US Air Force's SR-71) was also well underway.[40] Finally, CORONA, the United States's first successful photoreconnaissance satellite, would become operational in 1960.[41] Each of these carried a far lower level of risk (or so it was thought) of detection and compromise than would have been the case with SKIFF, and with the advent of CORONA, the inevitability of exposing a human operator to potential capture inside denied territory was rendered moot. And, when the need came for in-/ex-filtration of human assets, it was hard to argue with the logistical, financial, and safety benefits of a rubber boat with an outboard motor.

Beyond potential operational security risks, the gasoline engines that powered both SKIFF and GIMIK presented inherent safety hazards to

their operators. The dangers posed by gasoline engines in a submarine operating environment had been well known since the first decade of the 20th century; by the First World War, most operational submarines were already diesel-powered.[42] While the OSS may not have been aware of the dangers presented by gasoline engines in submersible craft, CIA certainly was, having learned this lesson the hard way, as mentioned above.

According to SKIFF Project Manager Dawson Smith, while the agency certainly took advantage of technology, often the best option was what was readily available to the public; such devices tended to be less expensive and less likely to draw attention. The table on the preceding page compares the characteristics of the semi-submersible SKIFF to those of the RB-12 (12' inflatable rubber boat) powered by an 18 HP Special Outboard engine. Though far less exciting, the RB-12 cost a fraction of the SKIFF, took less manpower to maintain, was easier to handle during an operation, and, if seen by the public, would draw no interest because they were (and remain) commonplace. Then there was the near elimination of the risk of explosion. Granted, there were clear advantages to the semi-submersible such as crew's arriving warm and dry, but simple economic and safety concerns seem to have prevailed.

Lingering Questions

With publication of this article, GIMIK's identity and story is largely settled. Not so with SKIFF. Despite the wealth of technical information made available by CIA concerning SKIFF, remarkably little is known about its intended use. What were the specific missions for which SKIFF was deployed? Who were its intended operators—Americans or, as with GIMIK, nationals of the intended target country or of some other nation?

Finally, there remains the issue of accounting for all the vessels. We can account for both SKIFFs: one was scrapped and the other preserved for posterity, at CIA. One last question remains concerning GIMIK, and that is the final disposition of the GIMIK craft that had reportedly been stored at Newport Naval Station but which seems to have disappeared from public sight.

Final Thoughts

GIMIK and CIA SKIFF represent an interesting era—actually two eras—in our nation's history: World War II and the Cold War, dangerous times with equally critical potential outcomes. And while many visitors to Battleship Cove or the CIA website see two odd, old wooden boats, they represent much more. These vessels are examples of American ingenuity, of pushing the bounds of what was possible at the time. They recall the heroism of American and Korean nationals who were willing to risk their own lives to affect the outcome of critical conflicts.

❖ ❖ ❖

Sources

1. The website "Ask INFOSER," Question 29/86, "Japanese suicide motorboats, WW2," *Warship International*, summer 1986, 310.
2. CIA FOIA Document, "CIA Museum Briefing," Released 27 Oct 2011.
3. Brunner, John W., OSS Special Weapons II, Phillips Publications, 253.
4. OSS Records in the US National Archives: "NAPKO Project," June-August 1945, RG 165, entry 420A, ABC 350.05 [21 June 1944], boxes 275-277, loc.: 390/37/29/67.
5. Japanese occupation and annexation of Korea, CIA World Fact Book: https://www.cia.gov/library/publications/the-world-factbook.
6. OSS Records in the US National Archives: 18 July 1945 Donovan Recommendation, RG 165, entry 420A, ABC 385 [3 April 1942], box 481, loc.: 390/37/34/02.
7. South Korean Patriots & Veterans Administration Agency, *Napko project of OSS*, 2001. This publication, previously online in its entirety on the website of the National Archives of Korea (http://www.archives.go.kr) is no longer available there; however, a print copy can be accessed as part of the John E. Taylor Collection at the US National Archives using the above-referenced citation information and the call number D763.K6 N3 2001.
8. George McCullough, *Gizmo #1 and Gizmo #2* (unpublished memoir, 23 August 2003).
9. *Napko project of OSS,* p. 207.
10. Ibid., 208.
11. Ibid.
12. Ibid., 209.
13. Ibid.
14. Ibid.
15. Ibid., 211.
16. Ibid.
17. Ibid., 212
18. Ibid., 214.
19. Ibid., 215.
20. Ibid., 216.
21. McCullough, *Gizmo #1 and Gizmo #2*.
22. Ibid.
23. Ibid.
24. Thomas F. Moon and Carl F. Eifler, *The Deadliest Colonel* (Vantage Press, 1975).
25. Ibid.
26. McCullough, *Gizmo #1 and Gizmo #2*.
27. Moon and Eifler, *The Deadliest Colonel.*
28. McCullough, *Gizmo #1 and Gizmo #2*.
29. Moon and Eifler, *The Deadliest Colonel.*
30. Central Intelligence Agency, "CIA 'SKIFF' OPERATING & INSTRUCTION MANUAL, December 1954; government document released by FOIA request to authors, November 2011.
31. Ibid., 32.
32. Internal CIA Memorandum dated 18 August 1959, CIA FOIA document released 27 Oct 2011.
33. The website Wave Train; "Boats & Gear: Bomb Squad—Atomic-4 Gasoline Engine," article by Charles Doane, 30 January 2011, http://www.wavetrain.net/boats-a-gear?start=99. Accessed 16 November 2014.
34. Wikipedia; "Univeral Atomic 4"; http://en.wikipedia.org/wiki/Universal_Atomic_4.
35. The website "Ask INFOSER," Question 29/86.
36. CIA SKIFF Operating Manual.
37. Ibid.
38. Ibid.
39. Gregory W. Pedlow and Donald E. Werzenbach, *CIA and the U-2 Program 1954–1974* (Central Intelligence Agency, Center for the Study of Intelligence, 1988), https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/the-cia-and-the-u-2-program-1954-1974/index.html. Accessed 16 November 2014.
40. David Robarge, *Archangel: CIA's Supersonic A-12 Reconnaissance Aircraft* (Central Intelligence Agency, Center for the Study of Intelligence, 1988), https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/a-12/index.html. Accessed 16 November 2014.
41. Kevin C. Ruffner, ed., *CORONA: America's First Satellite Program* (Central Intelligence Agency, Center for the Study of Intelligence, 1988), https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/the-cia-and-the-u-2-program-1954-1974/index.html/corona.pdf. Accessed 16 November 2014.
42. John D. Alden, *The Fleet Submarine in the United States Navy: A Design and Construction History* (Naval Institute Press, 1979).

❖ ❖ ❖