



Above: The I-401 making its way along the side of its sister ship, the I-400, in Yokosuka Harbor. (Photo courtesy of EN-Archive)
 Below: This very rare photograph shows the I-400 with two Seiran Aichi M6A float planes parked on the launch rail on the front deck. (Photo courtesy of EN-Archive)



UNDERWATER AIRCRAFT CARRIERS

SNEAKING UP ON AMERICA ... AGAIN
 BY DAVID TRUBY

Pearl Harbor was the first. The American West Coast was to be next for a sneak bacteriological attack. Then, bomb New York City and obliterate the Panama Canal. According to the Japanese High Command, that was all to be accomplished early in the conflict—and they were deadly serious about it. By early 1942, Japan had actually started developing the secret weapon technology required.



U.S. Navy personnel pose inside the hangar of I-401 at Pearl Harbor in 1946 shortly before the submarine was sunk to keep its technology from falling into Soviet hands. (Photo courtesy of U.S. Navy)

At the center of their follow-up sneak attacks were huge submarines known as Sen-toku, designed as the world's first (and last) undersea aircraft carriers. Key strategists, led by Admiral Isoroku Yamamoto, Commander in Chief of the Japanese Combined Fleet and a strong advocate of aviation, predicted their plan to disrupt America's ability to wage war on the Empire would be operational by year's end.

According to historian Sheena Pearson, Japan's plan was to hem in American forces and surprise-attack major U.S. cities using the huge submarines capable of carrying bomber aircraft. Pearson said, "The initial plan was for the subs to travel quiet and deep, surface, launch the swift attack on the Panama Canal, recover their aircraft, then dive and head to the next target city ... Admiral Yamamoto's initial plans had bombing attacks on

both coasts of the U.S. Their plan was to close the Panama Canal and create civilian panic in major coastal cities.”

Fortunately, as Japan’s unwinnable war bore down on them, it was a given by 1944 that the attacks would be of psychological benefit only. Part of that reasoning came about because of the death of Yamamoto the year before—an interesting aviation story of its own. Thus, when the operation launched in 1945, all submarine personnel were given tokko short swords, a gift representing the ultimate sacrifice. They were not expected to return.

Decades Ahead of Their Time

The Sen-toku I-400 class boats were easily the biggest, fastest and most technologically advanced submarines of their time, and they remained so until Soviet and American nuclear ballistic missile submarines became operational in the mid 1960s.

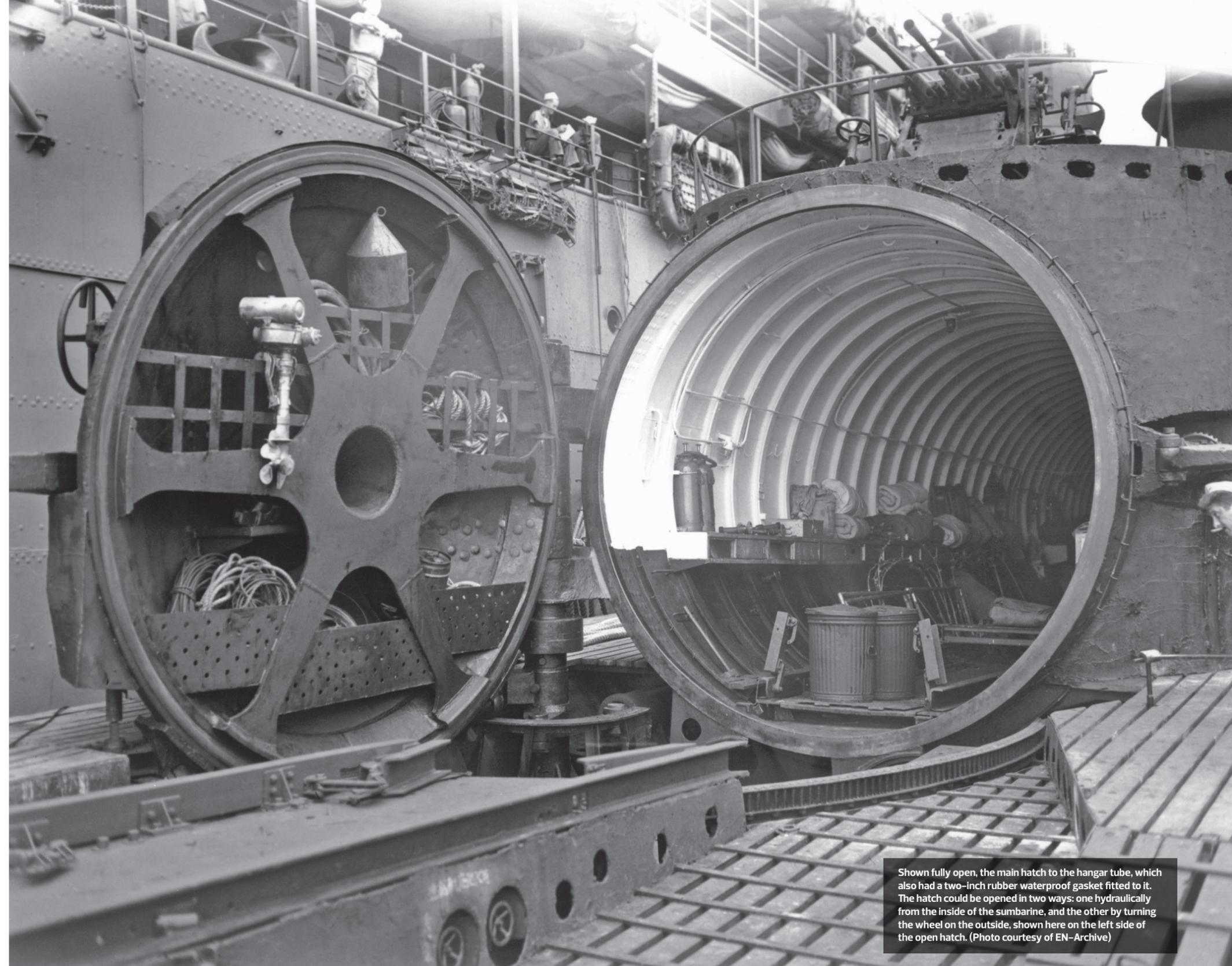
Four hundred feet long, displacing 5,900 cubic feet with a crew of 145 officers and men, it sported a rubber coating that muffled interior noise and confused enemy sonar. Each sub carried three Aichi M6A1 Seiran (“Mountain Haze”) bombers, completely unknown to Allied intelligence at the time. Each Seiran could carry a 1,764 lb. bomb/torpedo load a range of 650 miles at 295 miles per hour. A four-man crew could ready a plane for launch in less than 17 minutes inside the sub’s cavernous hull. Launch was via an 85 ft. long, compressed air catapult on the forward deck.

A FOUR-MAN CREW COULD READY A PLANE FOR LAUNCH IN LESS THAN 17 MINUTES INSIDE THE SUB’S CAVERNOUS HULL. LAUNCH WAS VIA AN 85 FT. LONG, COMPRESSED AIR CATAPULT ON THE FORWARD DECK.

The biggest risk for each sub was to get all three aircraft launched in less than 30 minutes to avoid defensive counter attacks sure to come, considering the closeness of the targets.

The subs were also equipped with eight forward torpedo tubes for short-range target attack, and they had huge fuel tanks that enabled them to travel 37,500 miles—an ability to circle the earth one and a half times. Historian Perry Moore wrote that these subs were “... fast, traveling at 23 knots on the surface or 10 knots submerged. They could submerge to 340 ft. and were powered by two 2400 hp engines.

“The I-400 series had great cruising range which enabled them to launch three bombers within striking distance of targets as far from Japan as San Francisco, Los Angeles, the Panama Canal, Washington, or New York. All of these missions were considered by the Tokyo Naval Strategists,” Moore wrote.



Shown fully open, the main hatch to the hangar tube, which also had a two-inch rubber waterproof gasket fitted to it. The hatch could be opened in two ways: one hydraulically from the inside of the submarine, and the other by turning the wheel on the outside, shown here on the left side of the open hatch. (Photo courtesy of EN-Archive)

The Yamamoto Legacy: An Underwater, Aerial Threat

The brainchild of Admiral Yamamoto—conceived prior to the Pearl Harbor attack—the massive, aircraft-carrying submarines were authorized early in 1942. Yamamoto selected Captain Kameto Kuroshima as his project officer. According to project documents, the plan was for “a fleet of 18

submarines each carrying three attack aircraft with grand stores of normal naval weaponry. Aerial attacks of three bombers from each vessel would destroy the Panama Canal, while bombers from other submarines would hit cities up the Southern and Eastern coast of America.”

The aircraft chosen by Admiral Yamamoto was the Aichi M6A1 Seiran, an aircraft designed

specifically for aerial attacks on U.S. home targets. It was a two-seat, low-wing, high performance monoplane powered by a 1,410 hp engine. Seiran had detachable twin floats, folding/rotating wings and a folding tail assembly designed for rapid assembly and storage disassembly. Wing folding was similar to Grumman designs. The submarine also had a heater for the aircraft engine oil so



After the surrender in August 1945, the U.S. Navy used skeleton Japanese crews and USN personnel to sail the captured submarines to Tokyo for publicity purposes, then took them to Pearl Harbor for detailed inspection. (Photo courtesy of U.S. Navy)

they did not have to warm up the engine prior to takeoff.

The Seiran was powered by a liquid-cooled Asuta 30 series, 12-cylinder inverted vee, essentially a German Daimler-Benz 601A, which made for faster launch and far better pilot visibility.

With a two-man crew, each plane had the observer's cabin-mounted Type 2, belt-fed 13mm machine gun, essentially a swiped design version of the German MG 131. A total of 28 Seirans were built.

The Mission is Changed. And Changed Again.

In 1942, the Empire of Japan began construction of the massive undersea aircraft carriers. Work at the Kure naval arsenal started in 1943, but, as the war began to go badly for the Japanese, they eventually reduced the production number to five subs. Only three were ever completed. After the first mass fire bombing of Tokyo by 280 B-29s on March 10th, 1945, the Japanese devised a revised plan to retaliate by bombing San Francisco—using germ warfare—with a payload of infected rats, insects, and chemicals to spread disease. Perhaps knowing their war was already lost, the Japanese command scrapped the plan and concentrated

instead on destroying the Panama Canal gates. The commanders directed intelligence personnel in Panama to memorize vital parts of the canal's lock system.

With an Allied invasion already forming, the Japanese plan for a kamikaze attack again was redirected. The U.S. naval base on Ulithi, a Caroline island in what is now Micronesia, was bigger than Pearl Harbor and served as a major staging area during the latter part of the war. By destroying that base, they could slow the invasion. In August 1945, Operation Arashi (Mountain Storm) commenced. Two of the enormous subs, I-401 and I-400, started cruising toward Ulithi Atoll. The operation began under a full moon, with personnel receiving hormone shots to augment their night vision. The mission had a slight hiccup when one of the subs failed to receive a radio message with an updated and revised rendezvous point.

But then came the historic atomic bomb attacks on Japan that week, causing the submarine aircraft carrier mission to be figuratively torpedoed, when Emperor Hirohito announced Japan's surrender to Allied forces.

SEIRANS HAD DETACHABLE TWIN FLOATS, FOLDING/ROTATING WINGS, AND A FOLDING TAIL DESIGNED FOR RAPID ASSEMBLY



Surrender Was Hard to Fathom ... For Both Sides

The sub crews lingering around Ulithi did not believe the surrender news, even when Japanese headquarters ordered their bombing attack canceled and that the subs immediately return to Japan. The CO of the I-401, Lt. Cmdr. Nobukiyo Nambu, thought the broadcasts of August 14th and 15th were American propaganda.

But on the 15th, the submarine commanders received orders from Emperor Hirohito to cease operations immediately, destroy all weapons, aircraft, classified logs and documents, and then surrender their vessels: the war was officially over. A major reason the aircraft were to be destroyed was that they had been painted with U.S. insignia to confuse American defenders during the planned attacks. The commander of the I-400 committed suicide rather than be captured with that evidence. Within that week, the U.S. Navy took the vessels and crews into custody.

According to one source, not all of the Seiran aircraft were jettisoned by the Japanese. David Johnson, whose father was part of one U.S. Navy crew that brought the I-400 back to Hawaii, wrote that they were taken off the submarine at Barbers Point Naval Air Station, just west of Pearl Harbor.

The surviving aircraft was brought to Alameda Naval Air Station in California where it sat, nearly junked on outdoor display until 1962, when it was "rescued" by the National Air and Space Museum. The Smithsonian Institution spent several years and almost \$1 million to restore what is now the only surviving Seiran. It is on display at the NASM facility in Chantilly, Virginia.

An Ignoble End for Behemoths

The I-400s' journey didn't end with cessation of the war. The late Thomas O. Paine, a naval executive officer and navigator, arrived in Hawaii aboard I-400. He recounted his experience coming home in the Japanese submarine in his diary and advocated keeping the undersea carrier and its aircraft plan operational.

"To anyone who would listen I argued the case for refitting the I-400 for submerged operation and evaluation. I was convinced that we should find out how such a huge submarine handled submerged, how her automatic trim system worked, what lessons her Japanese naval constructors had incorporated into her design from their long experience with big submarines, and all of the other things I felt she could teach us. Such decisions had already slowed to a peacetime

One of two purpose-built trainer versions of the M6A1, the Nanzan variant (M6A1-K) was assembled with landing gear and a dual control cockpit. (Photo courtesy of Stan Piet)



Above: One Seiran aircraft was not scuttled following the surrender and was recovered by USN personnel. It was taken to Barbers Point Naval Air Station near Pearl Harbor in 1945 and was donated to the National Air and Space Museum in 1962. (Photo courtesy of U.S. Navy) Below: This photograph shows the restored Seiran Aichi M6A undertaken by the Smithsonian Air & Space Museum. Restoration commenced in June 1989 and was completed around February 2000. (Photo by NASM courtesy of EN-Archive)

tempo, though; we were to stand by for further orders.”

Apparently, those orders did not come until the spring of 1946, when the U.S. Navy learned that the Soviets were sending an inspection team to study the gargantuan submarines. Rather than have the technology available to the soon to be rapidly-growing Soviet Union, on June 4th 1946, the submarine *USS Trumpetfish* torpedoed the two subs off the coast of Oahu.

The remains stayed hidden in that deep, dark hole until March 2005, when a research team from the University of Hawaii located I-401. Terry Kerby, the pilot of the research vessel, said, “We

thought it was giant rocks at first, it was so huge. The sides went up and up, three or four stories tall. The hull was in good shape, we could see the I-401 clearly visible and the AA guns were in good condition.”

Then, in August of 2013, a joint team from the National Oceanic and Atmospheric Administration and the Hawaii Undersea Research Laboratory finally discovered I-400, also off the southwest coast of Oahu, 68 years after the USN sunk it.

No public announcement was made until December, after American and Japanese scientists, historians, and military officials reviewed and verified the findings.

Again, the project’s operations officer, Terry Kerby, announced the discovery, as he had done eight years earlier, saying, “Our sonar picked up hints of a large wreck ... it was a thrill when the view of a giant submarine suddenly appeared out of the vast darkness down there. It was the I-400.” The search was over and there are no plans to salvage either vessel, which closed the book, at least for the present, on the Japanese super submarine “aircraft carriers.” Yet, as field researcher Jim Delgado said, “Seeing the I-400 in its grave here is like watching a shark at rest.”

Lying in repose at the bottom of the Pacific Ocean, near Pearl Harbor, those giant hulks serve as a reminder of Japan’s silent threat of bombing the U.S. mainland and destroying the Panama Canal via their underwater aircraft carriers. †

