After radar took over, OS2U Kingfishers were the eyes of the fleet.

by James L. Noles, Jr.

Rear Admiral Robert C. "Bebe" Giffen assembled a small group of pilots on the deck of the USS Massachusetts in the predawn darkness. Giffen was a commander in a formidable invasion force gathered off the coast of North Africa on November 8, 1942. His mission, known as Operation Torch, was to create a second front against the German forces, but in order to begin the invasion, he'd need the pilots of his aviation detachment to scout for vital information. Would the Vichy French in Morocco, with troops entrenched ashore, and the battleship Jean Bart and five submarines in the harbor, resist the U.S. landing? In the days leading up to the invasion, a U.S. Army general had attempted to negotiate an agreement. If the pro-Vichy forces in Casablanca decided to defy their German overlords by not fighting the Americans, they would signal their decision with a white flag. "The admiral told us to reconnoiter the French positions and look for that flag," says Thomas Dougherty, recalling that morning 62 years ago. Dougherty, who today lives in Duluth, Minnesota, was an ensign and a pilot of one of the battleship's two Vought-Sikorsky OS2U-3 Kingfishers. "If we encountered enemy action, we were to call 'Batter up,' and the ship would answer 'Play ball,' to let us know they were launching an attack. In the event of an attack, Dougherty's job as a Kingfisher pilot was to be a 'spotter,' responsible for directing the fire of a battleship's guns by overflying a target and spotting the shells as they landed. If the shells fell short or too far to the right or left, the pilots would call back with corrections.

When Dougherty flew over the French fleet moored in the harbor, he saw no white flag. Instead, the inexperienced pilot was greeted with what he thought were fireworks. "What did I know?" he remembers. "I was just fat, dumb, and happy, wondering who was celebrating down there. Then, when an explosion's concussion just about knocked me over, I realized they were shooting at me!" He immediately radioed "Batter up" to the Massachusetts, and within moments, Dougherty and Etheridge were returned safely—Dougherty after only five days of captivity.

Birth of an Icon

Directing battleship fire was precisely the kind of mission for which Rex B. Beisel had designed the Kingfisher five years earlier. A Vought-Sikorsky engineer who went on to design the F4U Corsair, Beisel incorporated innovations in the Kingfisher, the first monoplane ever to be launched from the F4U Corsair, Beisel incorporated innovations in the Kingfisher, the first monoplane ever to be launched from a shipboard catapult, that would make it the U.S. Navy's primary ship-based observation aircraft during the Second World War. It was the first to be assembled with spot-welding, a process Vought and the Naval Aircraft Factory jointly developed to create a smooth fuselage that resisted buckling and generated less drag. Beisel also introduced high-lift devices to keep the aircraft controllable at low speeds. Deflector plate flaps and special drooping ailerons were located on the trailing edge of the wing and were deployed in concert with one another to increase the camber of the wing and thus create additional lift. The pilots then took over the ailerons' job by providing lateral control during low-speed flight (see illustration, next page). For armament, the Kingfisher carried a .30-caliber machine gun, the ship's big guns were hammering away at the Jean Bart.

Dougherty soon came under attack from a French fighter aircraft, and the Kingfisher's canopy disintegrated in a hail of bullets. "If I had had my seat raised one notch higher," Dougherty declares, "I wouldn't be talking to you today." He splashed down safely in the harbor and was taken prisoner by the French. His radioman, Robert Etheridge, was wounded in the attack and taken to a hospital. Eventually, the aircraft controllable at low speeds. Deflector plate flaps and special drooping ailerons were located on the trailing edge of the wing and were deployed in concert with one another to increase the camber of the wing and thus create additional lift. The pilots then took over the ailerons' job by providing lateral control during low-speed flight (see illustration, next page). For armament, the Kingfisher carried a .30-caliber machine gun, the ship's big guns were hammering away at the Jean Bart.

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boasting additional fuel tanks and stronger armor. Confronted with the squat monoplane—some with wheels, others with floats, and still others with wheel-float conversion kits—Navy pilots quickly christened it “the Bug” or, in mokeyry of the designation OS2U, “Old Slow and Ugly.”

“Slow” was right—it was a lucky pilot who could coax speeds of more than 166 mph out of the Kingfisher. A crafty pilot could, however, work beyond what could be observed from the ground. Almon P. “Al” Oliver, a pilot stationed on the battleship North Carolina, remembers that the ship’s gun crews would begin a fire mission by firing a single round, then radioing the word “salvo.” “Just before the shell was expected to land, Oliver recalls, the crew called ‘stand-by,’” to alert the pilot to observe the shell land, then as the shell was expected to land, “...’splash.’” “As the firing continued, the pilot would call out any corrections necessary to put the shells on target, at which time he would report ‘No change, no change.’”

Ready, Aim, Launch!
For Kingfisher crews assigned to the Navy’s warships, missions began literally with a bang. “Aircraft were launched from the ship by a catapult operated by gun-powder,” explains Oliver. Battleships and cruisers were, at the time, typically outfitted with two stern-mount- ed catapults for such purposes. The Navy even equipped some destroyers with them, although the smaller ships had to give up a gun turret and the tor pedo tubes, to make room for the catapult. “An eight-inch shell filled with black powder was fired into a clam-

Curtiss Aircraft Company’s SOC Seagulls scouted with Kingfishers.

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Robert Epperson served as a radio operator-gunner with Salt Lake City’s Kingfisher unit. He recalls the explosive moment of launch from inside the aircraft. “The pilot would clamp his hand down on the throttle, stick his elbow back in his stomach, and lock his head back in a headrest,” he says. “In the back, I would put my head down in my lap, cross my arms over it, and grasp a pair of handles with my hands. When we were catapulted from amidships, the force was fantastic. Anything that happened to be loose in the cockpit—in fact, just about anything in the cockpit—became a projectile. For the first few seconds after launch, you were busy putting radios and spare ammunition cans back where they belonged so that those things weren’t jamming the controls.”

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“Swells in the landing area are predictable,” Oliver explains. “[Usually] they can be judged by the pilot and pose no big problem to operations unless they are extremely high.” In the choppiest waters, the ship created a “slick,” a wake of relatively calm water, by making a sweeping turn to one side. The airplane flew a pattern parallel to the ship’s course at 500 feet, with the ship flying a signal flag at half mast. A green flag on the starboard yardarm indicated to the pilot that recovery would be made on the ship’s starboard side, while a red flag on the port yardarm indicated a port-side landing. When the airplane was about a quarter-mile ahead of the ship, the “C” flag—“Charley” flag in Navy parlance—was waved to signal the pilot to begin the landing sequence.

“Upon signal to execute, the airplane started a circling 360-degree approach and the ship executed a maximum-rate turn of 90 degrees,” says Oliver. “A crewman on the fantail threw a smoke flare overboard so that the pilot could align his approach and land into the wind, as close to the ship as possible” (see illustration, opposite). After landing, the pilot taxied to a “sled,” towed from a boom near the stern. The sled, which measured about 10 feet wide and 20 feet long, was more of a heavy rope tied into a series of one-foot squares. A spring-loaded hook attached to the end of the Kingfisher’s main float engaged the sled, and the plane was towed until a sling

A pilot has attached the hook from a shipboard crane so the Kingfisher can be hoisted onto the deck (left). Before a recovery, (opposite), the pilot taxied, sometimes in rough water, to engage a “sled” with a spring-loaded hook on the airplane’s main float.
from the cockpit was attached to an aircraft crane on deck. The airplane was then hoisted on board and placed in a cradle atop the catapult track.

**Scout, Search, and Rescue**

Meandering over enemy lines for hours at a time to call in naval gunfire on objectives, the Kingfishers endured themselves to the troops slugging it out with the Japanese below. But few men held the Kingfisher in higher esteem than the downed aviators in whom they endeavored. Lieutenant (Junior Grade) Vernon Coumbe. Shot down the day before, Coumbe had spent a tense night a scant two miles from a major Japanese naval base. Ordering Oliver to remain airborne, Jacobs braved high winds and choppy surf to splash down near Coumbe. Immediately, automatic weapons fire streaked through the air while shells plunged into the water around the Kingfisher. As Oliver took evasive action overhead, Jacobs taxied near the beach.

Turning back toward the beach, Oliver spotted both Jacobs and Coumbe struggling in the surf. While Jacobs had stood in the cockpit trying to help Coumbe on board, the blast from a nearby shell had dumped Jacobs out of the airplane. As he fell, he had inadvertently kicked the throttle wide open, and the aircraft took off unmanned, leaving him and Coumbe stranded on the hostile shore.

“I landed and taxied back, then turned into the wind, flaps down, and sailed backwards through the surf with the main float touching the beach,” Oliver recounts. “Since the plane had only one seat in the rear cockpit, I yelled out to Jacobs that he should help the rescued pilot into the back seat and that I would send someone back for him.” Jacobs understandably disagreed with Oliver’s idea, and scrambled into the back seat along with Coumbe.

Within moments, Oliver’s Kingfisher loathed aloft. With its center of gravity so far aft, his aircraft “flew like a pregnant duck.” It also burned fuel at an increased rate, so Oliver kept a careful eye on his fuel gauge. Some two and a half hours later, he landed alongside the North Carolina with what he described as “one cup of fuel” in the tank. For the three pilots, it had been a remarkably close call, and both Oliver and Jacobs received Distinguished Flying Crosses for their bravery.

**The Kingfishers Retire**

The end of World War II marked the end of the era of using catapults to launch aircraft from ships other than aircraft carriers. Increasingly effective anti-aircraft weapons, improvements in radar-controlled gunfire, and the ascendancy of the helicopter conspired to edge the slow, vulnerable Kingfisher off the stage. Today, some half-dozen Kingfishers reside in museums around the world, including the National Air and Space Museum’s Steven F. Udvar-Hazy Center in Chantilly, Virginia. Kingfishers are also on display at the USS Alabama and the USS North Carolina battleship memorials, at the Naval Aviation Museum in Pensacola, Florida, and at museums in Havana, Cuba, and Santiago, Chile. These few exhibits are all that remain of the more than 1,300 Kingfishers that served during World War II.

The airplane started what appeared to be a takeoff run into the wind,” Oliver remembers. “I expected Jacobs take-off might be rough due to the choppy water, but the high wind would be helpful. Yet as I watched the plane run into the wind longer than I felt necessary and begin to bounce and porpoise, I became concerned and flew down alongside the plane. To my amazement, both cockpits were empty.

In April 1944, a Kingfisher rescued nine downed naval aviators in Truk Lagoon. Here, the aircraft approaches the submarine USS Tang as the rescued fliers cling to its wings.