

The Hawker Henley Mk. IV

by Craig Burke

The British Air Ministry was less than lukewarm on the whole dive bomber concept. It had approved the Blackburn Skua as a two-place fighter for the Fleet Air Arm in 1937, but even when the German Stukas proved their worth in the Spanish Civil War for hitting pinpoint targets like bridges, the Air Ministry adamantly REFUSED to consider the dive bomber for land operations. Despite additional Wehrmacht successes in Poland, the Low Countries, and France, they preferred to stick to horizontal “light bombers” like the Fairey Battle.

A few wise heads in the Admiralty thought that, if anywhere, the proper place for the dive bomber might be at sea where squirming ships are hard to hit with “level” bombers, so Blackburn was allowed to equip some Skuas with dive-bombing apparatus. The Skuas were underpowered for heavy hauling and could only lift light bombs, but were a decent “starter” aircraft to test the concept.

Sydney Camm, Chief Designer of Hawker Aircraft, saw both Japan and the US investing heavily in carrier dive bombers, and saw great promise for a British naval dive bomber. In 1937 he set up some demonstrations (using the American biplane SBC Helldiver!) convincing the Admiralty of the efficacy of dive-bombing ships. Large, armored warships were difficult to injure with bombs of 500lbs or so dropped from the low altitudes and speeds necessary for the aircraft to control the dive and to pull out successfully. What was needed was an aircraft, like the Fairey Battle, that could deliver 1000-lb bombs or bigger. The Air Ministry wanted nothing less than a “diving Battle”.

Hawker offered to build some prototypes using the new Merlin inline V-12 engine, and a small batch of what became the Henley Mk.I was ordered for the Fleet Air Arm. Most of the few advocates of the dive bomber within the Air Ministry retired



in 1938, and with them went what little enthusiasm there was for dive-bombing aircraft. The Hawker Henleys that were built were stripped of their folding wing mechanisms and arrestor gear and relegated to the mundane task of target-towing or engine experimentation, and were re-designated Henley Mk.II. When war came, and the slow, lumbering Blackburn Skuas operating from the Orkneys dive-bombed and sank the German cruiser *Konigsberg* in Norway, the Air Ministry took immediate notice and ordered Hawker to dust off its Henleys for use as naval dive bombers. As usual, an improved version was needed that had greater horsepower, speed, firepower, and bomb load capability.

The Henley filled the bill, and an improved version was already being tested by Hawker in anticipation of such need. Power and armament of the new Henley Mk.III were improved with a newly-developed engine, folding wing with armament bay, American-style perforated dive flaps, and a “powered” turret in the rear cockpit.

Air-cooled engines are preferred aboard ships, so the 12-cylinder liquid-cooled Merlin engine was replaced by a novel, air-cooled, inline, 24-cylinder Rolls-Royce Exe

engine in the Henley Mk.III. The “X” cylinder configuration of the Exe gave lots of air-space for cooling, and the novel (some say “oddball”) design was the smoothest, most trouble-free engine to come along. While both the Exe and contemporary Merlin were putting out about 1,200 horsepower, the engine selected for the production Henley was Exe’s scaled-up, big-brother Heron engine putting out nearly 2,000 hp effortlessly. There was no liquid coolant and associated radiator to add to the weight of the aircraft. Rather than the large-diameter roundness of air-cooled, radial engine housings, the Heron could fit into the same slim nacelle as did Hawker’s other projects using liquid-cooled Napier-Sabre engines (Tornado/Typhoon/Tempest). Air ducted up through a large ventral air scoop (used as the radiator housing for the other Hawker products) and exhausted outside vents was sufficient to cool the Heron. A small propeller-like fan in front of the air intake provided pressurized air if the aircraft itself was not moving. Supplemental oil coolers were incorporated into the wing roots.

Hawker had experimented with a Defiant-like turret for its Hotspur fighter. The idea might work for the Henley, but Hawker sought to reduce the weight of the overall

mechanism. The turret was simplified, and “powered” by the gunner using a bicycle-style gear arrangement for traverse, and with hand-operated elevation. Rather than four guns, two were considered sufficient, and configured over-and-under to save width. The two Lewis guns were tilted 90 degrees opposite themselves, for easier access to change the round magazines. The Heron-powered, turreted Henley became the Mk.IV.

There was no Sea Henley designation for this naval bomber. As there was never a thought of using this dive bomber for the RAF, it was simply “Henley”. There was talk of giving it a seabird name, like Shearwater or Petrel, especially because it had a “tubenose” carburetor intake, but as it was a Henley from the beginning (named in the alliterative style for the manufacturer in vogue at the time), and exclusively built for the FAA, the original name was retained. The proposed Petrel name would also conflict with the Percival Petrel communications aircraft, four of which were already in service with the FAA.

Early in 1942 the first operational squadron of Henleys (803) went aboard the fast and powerful Royal Navy aircraft carrier *Excalibur* (sister ship to the *Ark Royal*). The squadron called itself “The Regatta”, in part because in their midst were several Henley-on-Thames residents who either belonged to the Yacht or Rowing clubs there. Even the Italians grudgingly respected the name, being derived from Italian, after all.

With Malta besieged and battered, and nearly at the point of surrender for lack of basic supplies for its populace, a massive relief convoy was organized in Gibraltar, called “Operation Pedestal”. In the largest British carrier assemblage to date in the war, and fearing the appearance of the new Italian fleet carrier *Aquila*, several aircraft carriers, battleships, and cruisers accompanied the convoy should the Italians and/or Germans try to intercept. ULTRA intelligence intercepts indicated a force of Italian cruisers were on their way from Taranto to cut off the convoy.



Henleys from *Excalibur* attacked the aerodromes of Pantelleria late in the day to disrupt any aerial interception of the approaching force. One of the “Regatta”, JT 565 (side-codes “A 8 @ H”) was attacked by two Reggianes but both were shot down by the rear gunner. Then, its engine suddenly quit, and the pilot kicked the door off in preparation to bail out. In the nick of time, he realized that he had neglected to switch fuel supply after using up the drop tanks. A few primer pumps later, the engine started up again and all was well except for the terrific wind in the cockpit. Back aboard the *Excalibur*, a replacement door, supplied not by Hawker but by Canadian Car and Foundry, had been painted an opposite pattern and color.

The next attack, beyond return range, was launched a few hours before dawn but not before the ground crew drew two fasces kill marks under the turret. With luck the attack group would catch the Italian cruisers at first light in the Malta Channel, then land at Malta to continue to provide air support, rejoining the *Excalibur* on the next sortie.

Henley dive-bombers and Fairey Marlin torpedo bombers surprised the Italian

cruisers at dawn without air cover, and sank two, damaging the others at least slightly. Italian fighters had been on their way, however, and raced to pursue the British. Originally all aircraft in this Operation were to have yellow empennage and wing-leading-edge bars because the opposing Italian He 113M fighters had a head-on silhouette similar to the Henleys. Yellow side codes as well as a yellow spinner were included. Near Malta, the Italian He 113 fighters tore into the bombers and JT 565 received several dozen bullets, most notably in the oil coolers, dooming the Henley to a seized engine momentarily as the oil drained out. Within sight of Malta, the Henley prepared to ditch in the Mediterranean.

The force of the water landing had sheared off the main wings, leaving the tail shredded but still there, and the weakened engine bearers had snapped, sending the heavy engine plunging to the bottom. The remaining fuselage and tail were relatively intact, and the built-in flotation and the near-empty fuselage gas tank gave enough buoyancy to allow the craft to remain afloat.

As luck would have it, the pilot and gunner were local Pairs Champions from

the Henley Rowing Club, Henley-on-Thames, and kept their own oars, oarlocks, and Club Pennant on board their aircraft. (When visiting FAA stations, they would ask for the local rowing club and borrow a skull for an outing). Wordlessly thinking the same thing as the Mediterranean sloshed around them, the crew broke out their oars. They each had a few bullet holes and nicks in them, but were otherwise sound. Standing up in the cockpit, the crewmembers paddled the fuselage canoe-style, tail first, towards Malta in the near distance. As an Air/Sea Rescue craft approached, the crew hailed them and said, "The Henley Rowing Club is paying you a visit". It was all caught on film, and caused quite a bit of morale-building amusement throughout the Empire as the film was copied and distributed.

The other main Henley action was a massive, polyglot sea battle in the Indian Ocean, where a split Anglo-Allied force met up with a split Saxo-Nipponese striking force, converging like a big "X" off Mauritius. A carrier-supported Japanese fleet was heading west for a raid on Madagascar and to join up with the massive Japanese battleship *Kii*, sailing around the Cape from European escapades with the Germans. The Greek battleship *Salamis* (4x2 14"), off Durban, had unsuccessfully tangled with the monstrous ship (4x2 18"), and sounded the alarm. The British Task Force 57 was trying to intercept and steaming northward while the *Excalibur* group was steaming south from Aden, hoping to meet up off Mauritius.

The *Excalibur's* aircraft made first contact with the *Kii* and it was here that the Henley's large payload paid off. The tough armor of the *Kii* defeated some bombs, but two penetrated into the engine rooms and exploded, knocking out power and causing the *Kii* to drift, unable to join the Japanese striking force now only dozens of miles away. The British decided to ignore her for the present, and turned their attention to the large carrier force.



The unfortunate similarity of looks and markings to Japanese planes made the Henleys of 803 Squadron the target of several friendly-fire incidents. Because the *Excalibur* task force was part of the Mediterranean Fleet (Northern prong of the attack), it had not gotten the memo distributed to the East Indian Command (Eastern prong of the attack) to eliminate the red centers from all aircraft insignia (prompted by confusion with the Japanese red disc insignia). In addition, all aircraft from the recent Operation Pedestal still had yellow bars on the wing leading edges, similar to Japanese naval planes. *Excalibur's* actions against the main Japanese fleet saw the Henleys mistaken by ships' lookouts for returning Japanese "Kate" torpedo planes and were thus unmolested until well into their dives. Hapless carrier *Kasagi* was set afire and put out of action. Likewise, when the Henleys orbited the Allied fleet waiting to land, they got jumped by Allied fighters despite IFF signals.

The Eastern Fleet had received American Curtiss SB2C Helldivers for commonality with the Americans in the Pacific, and rather than support both types, further

Henley production was curtailed as the FAA re-equipped. Most seaborne Henleys were transferred to FAA shore stations. As a final exclamation point to the Henley's career, Henleys from FAA Hatson (Orkneys) sank a German light cruiser in Bergen harbor, four years after the original mission led to the adoption of Henleys for FAA service.

Back in Henley-on-Thames after the war, a new tradition was started. Using a war-surplus target-tug Henley fuselage from a local aerodrome, a watertight replica of JT 565 was made. It was built with three seats, two having oarlocks. It was duly painted in FAA colors, had the mis-matched door, kill markings, and the yellow tail for "Operation Pedestal". All official oars had to have two bullet holes and one half-round nick. Upon installation as President of the Club, the new leader would take his place in the "front" seat while the most recent "Pairs Champions" rowed him in a ceremonial circuit of the marina.

About the model: The ancient 1/72nd Formaplane vacuform Hawker Henley (a real aircraft) is the basis for this model, but more as a template to compare and use

similar injection-molded parts instead. This Henley is a blend of Heller and Revell Tempests, Hurricane outer wings, RAF Rescue Craft turret, bomb crutch made from a Halifax landing gear(!), 1/48th Fw 190 horizontal stabilizer, Brewster Buccaneer dive brakes, and others. Only the vertical stabilizer, underbelly fairing, and cockpit canopy came from the original vacuform Henley. The Henley resembled an enlarged Hurricane, and I wanted the Hawker Tornado (in between Hurricane and Typhoon) look of dual side exhausts and dorsal carb intake. "A 8 @ H" was one of the 803 Squadron Skuas that helped sink the *Konigsberg*, so I used its codes as a tribute. Markings include a special home-made badge for *HMS Excalibur* (fictional carrier of *Ark Royal* class). Camouflage is meant to be typical British style, with an additional Mediterranean Blue squiggle in the Medium Sea Gray as an expedient to increase blue as the *Excalibur* moved from the Med to the Indian Ocean. Azure Blue undersides.

