

RAF Catalina Mk I DA-L AH550 of No 210 Squadron, one of the first to be delivered to the service in 1941. The Catalina saw its first true action with the RAF's Coastal Command when, on 26 May 1941, a No 209 Squadron machine captained by Plt Off Dennis Briggs located in mid-Atlantic the German battleship *Bismarck*.

Consolidated PBY Catalina

The appearance of the Consolidated Catalina is such as to make it one of the most recognisable aircraft of all time, at once somehow graceful and ungainly, yet in every sense also highly functional. The product of an innovative manufacturer, this patrol flying boat was of great importance to Allied victory in World War 2 and performed superbly in every theatre to which it was assigned.

The Catalina stemmed from the XP3Y-1, which had been ordered by the US Navy in 1933. Such was the performance of the aircraft when it commenced flying trials in March 1935, that the US Navy broadened its requirement from that of a patrol to a patrol-bomber flying boat. So confident was the US Navy in the design that before the first production PBY-1 emerged in September 1936, it placed an order for 50 of the slightly-modified PBY-2 variant. Service entry of the PBY-1 followed soon after. The PBY-3 and PBY-4 introduced more powerful Twin Wasp engines while the last few examples of the latter housed the waist guns in characteristic glazed fuselage-side blisters rather than behind hatches. These aircraft, of course,

were still pure flying boats, but a single-aircraft contract signed in April 1939 changed that. The Navy requested that a single PBY-4 be completed as an amphibian, thus becoming the prototype XPBY-5A. 1940 saw a first export deal, one of great significance — Britain's Royal Air Force wanted 30 PBY-5s, to which it gave the designation Catalina I. The name, that of an island off the Californian coast, stuck, and the Americans adopted it too.

War, especially when US engagement began following the Japanese attack on Pearl Harbor, spurred ever more production contracts. Yet, with the odd exception, the PBY design changed little, testament to its essential 'rightness'.

It is impossible here to do justice to the full range of the PBY's wartime exploits across all theatres — from the Atlantic to the Indian Ocean and the Pacific, from air-sea rescue duties to night-time nuisance raids, from the heat of North Africa to the cold of the Eastern Front. Its great range was a boon; crucial, indeed, in allowing Catalinas to roam where other Allied aircraft simply could not go. As an anti-submarine warfare weapon the PBY bore a considerable load, and unquestionably did

much to defeat the U-boat menace. By the end of the war, more Catalinas had been built than all other flying boats combined, making it a true world-beater.

CONSOLIDATED PBY-5A CATALINA

Type: Long-range maritime reconnaissance

Crew: 7-9

Length: 63ft 10in

Wingspan: 104ft

Powerplants: 2 x 14-cylinder Pratt & Whitney R-1830-92 Twin Wasps (1,200hp)

Loaded weight: 32,414lb

Max speed: 169mph

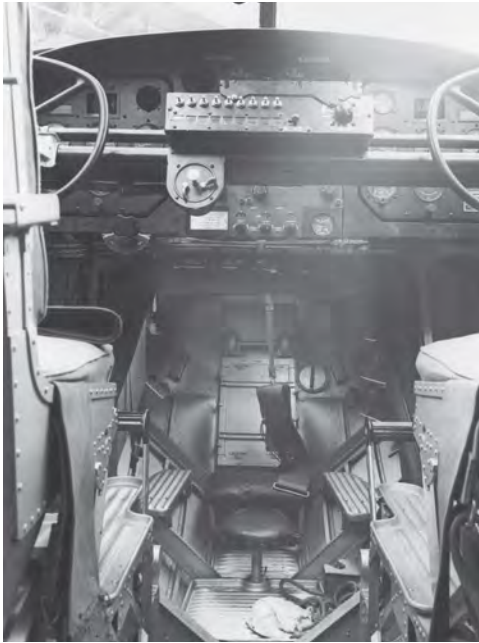
Armament: 2 x 0.303in machine guns in bow, 1 x 0.303in machine gun in ventral tunnel, 1 x 0.5in gun in each beam blister, plus 4 x 1,000lb bombs, or two Mk13-2 torpedoes, or depth charges.



An unidentified PBV gets 'up on the step' during its take-off run. The PBV's wing was mounted high up on a streamlined pylon, keeping the twin engines on the leading edge well away from the water. The outboard floats folded up to form the wingtips.



Still in pre-war markings, this impressive line-up of PBVs was captured during 1941 at NAS Corpus Christi, Texas.

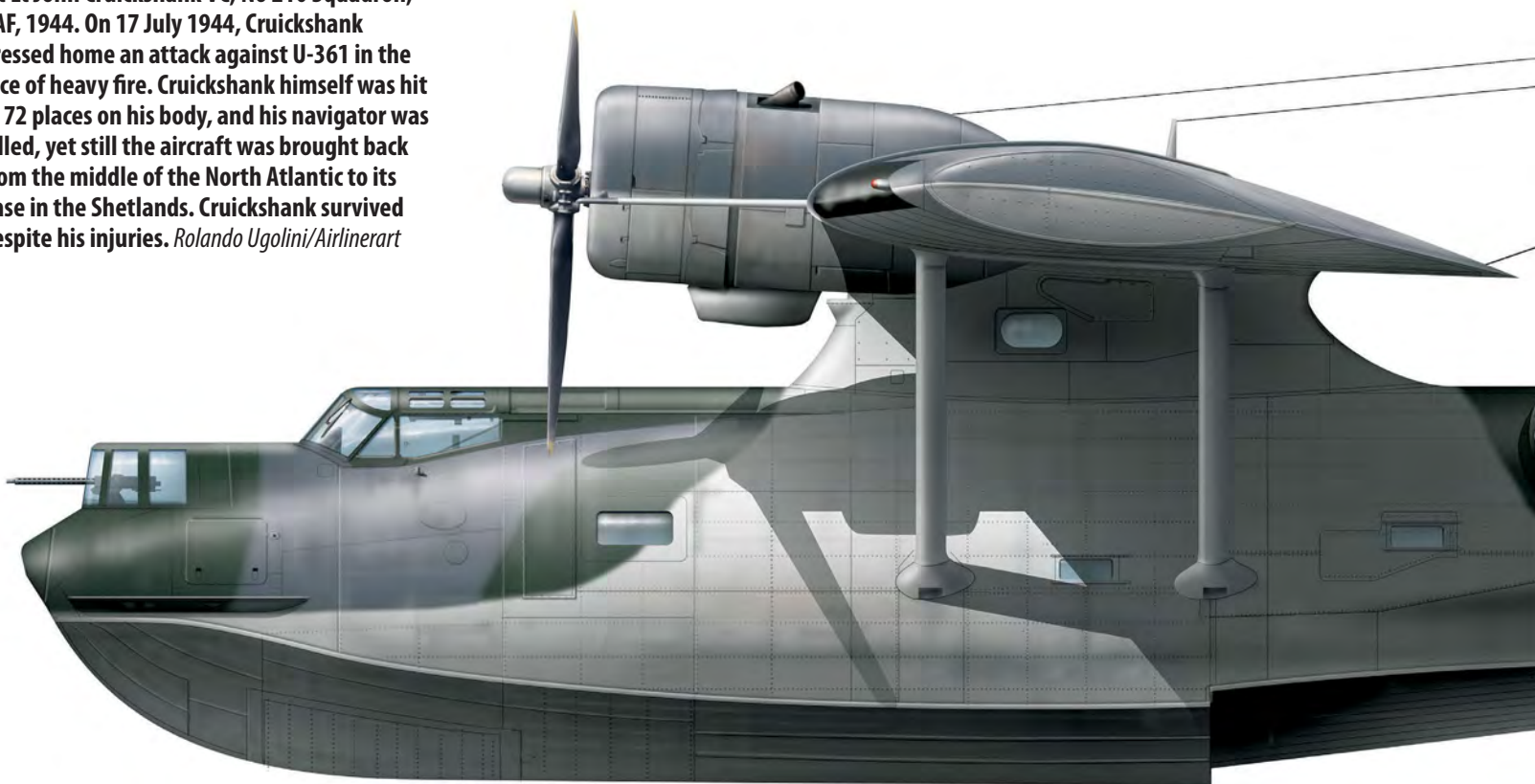


The front office of the Catalina, looking forward and down into the bow compartment and the forward mooring door. The fuselage was divided up by four bulkheads into five compartments. Furthest forward, the bomber's compartment was in the nose, with the two-man pilot's compartment aft of that; behind, one found the radio/radar operator's and navigator's compartment, while the engineer's station was in the superstructure supporting the wing. Further aft came the crew quarters and lastly the two gun blisters and the tail compartment.

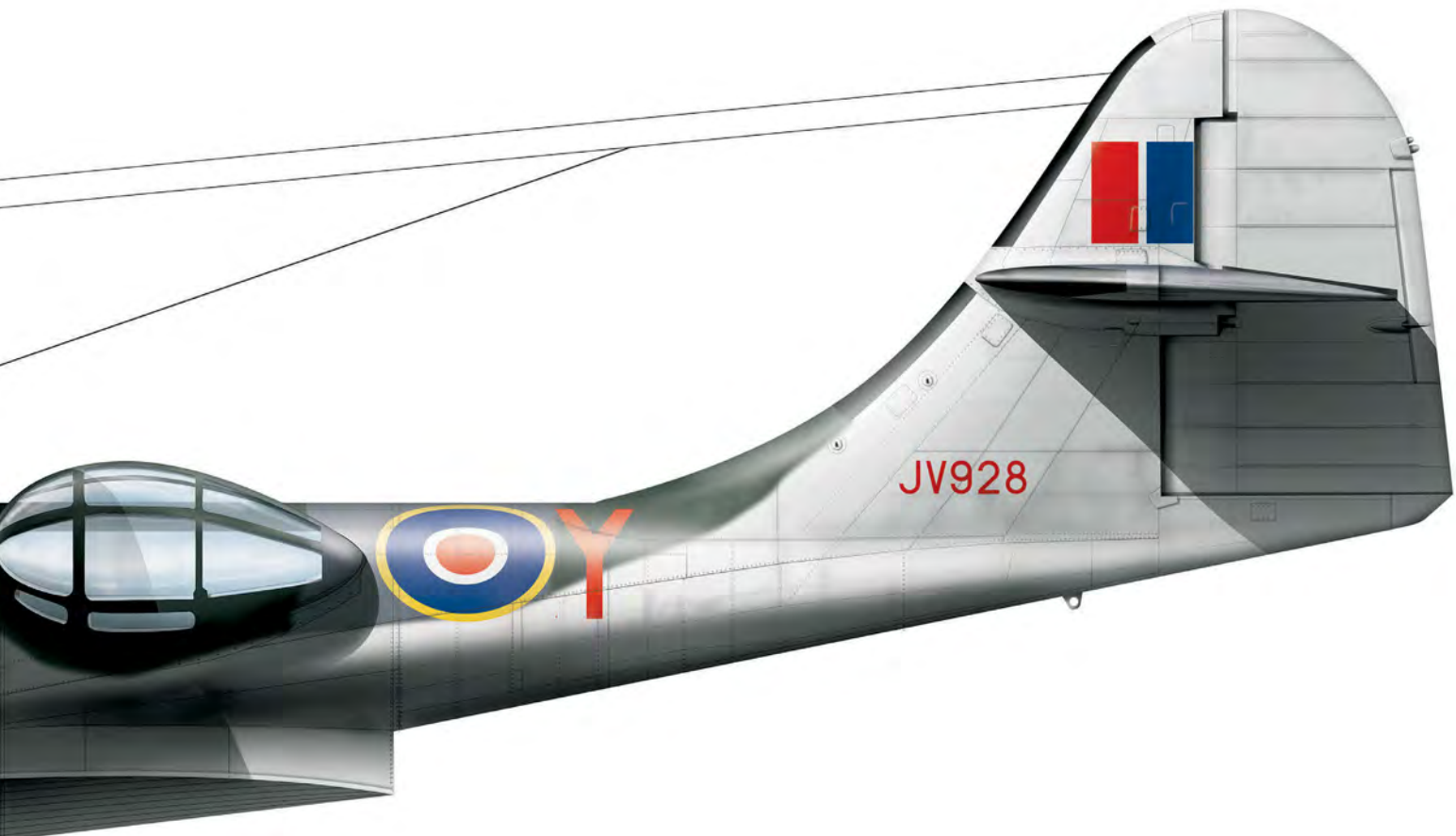


Bite of the Cat. US Navy aviation ordnance mate Jesse Rhodes Waller poses with a .30-calibre Browning machine gun on a PB5-A at NAS Corpus Christi, Texas, in 1942.

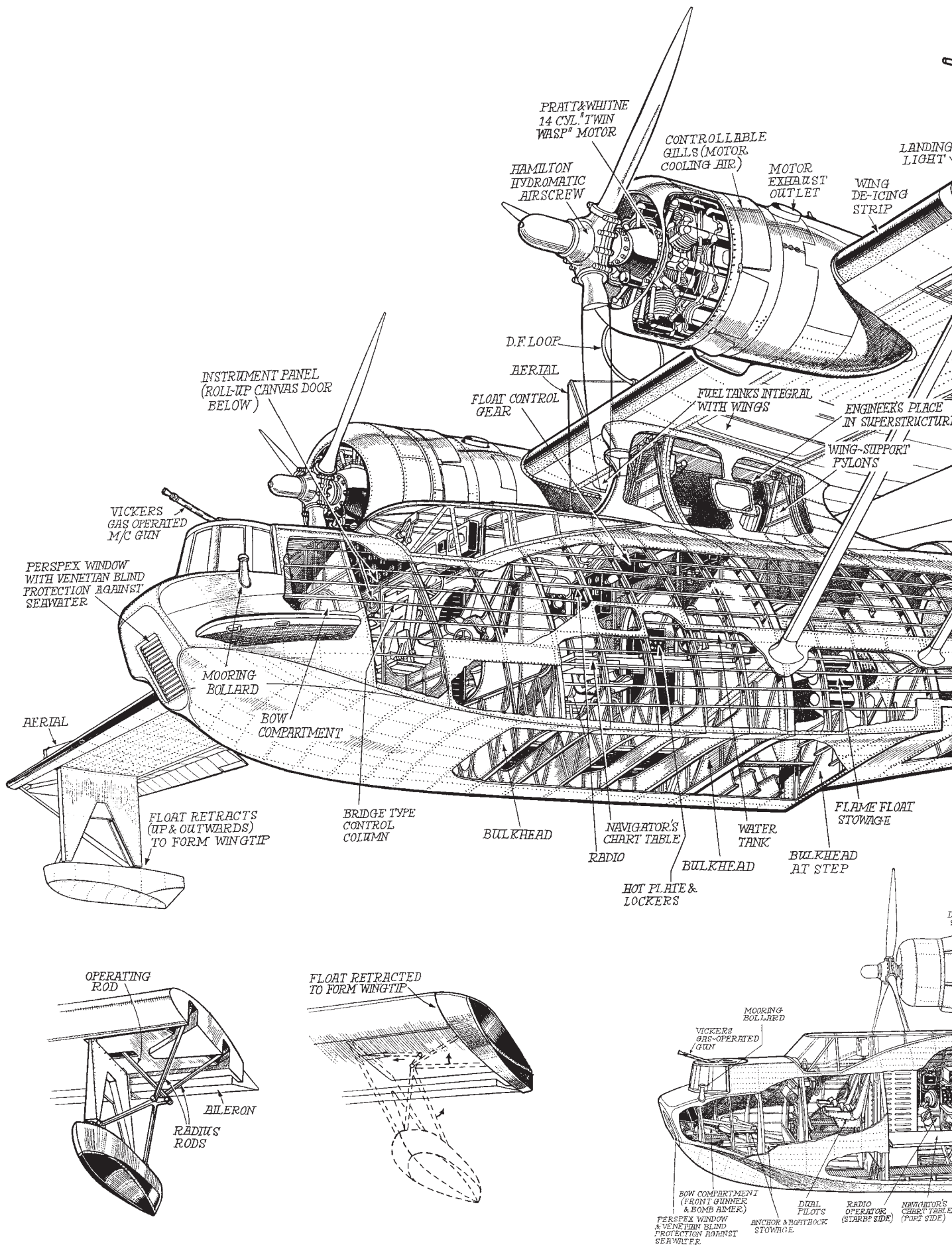
Consolidated Catalina IVa, JV928/Y flown by Flt Lt John Cruickshank VC, No 210 Squadron, RAF, 1944. On 17 July 1944, Cruickshank pressed home an attack against U-361 in the face of heavy fire. Cruickshank himself was hit in 72 places on his body, and his navigator was killed, yet still the aircraft was brought back from the middle of the North Atlantic to its base in the Shetlands. Cruickshank survived despite his injuries. *Rolando Ugolini/Airlinerart*

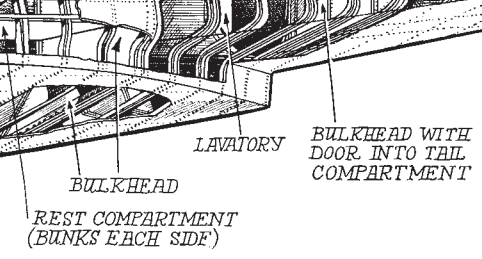
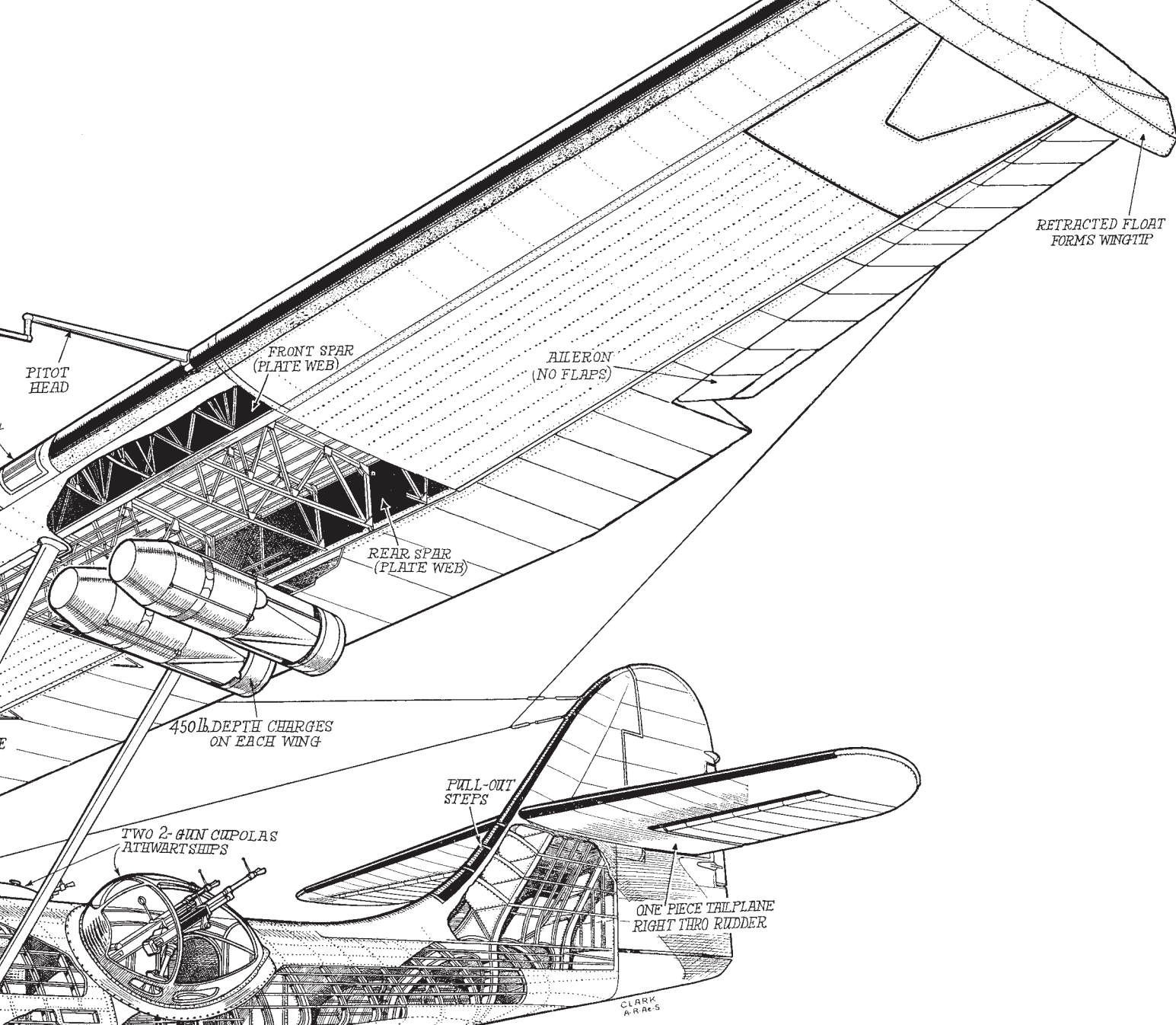


Catalinas flew in every theatre of conflict during World War 2, often operating under extreme conditions. Here US Navy personnel free a PBY-5A from frozen waters at Kodiak Bay, Alaska, some time in 1942-43.



Consolidated PBY Catalina

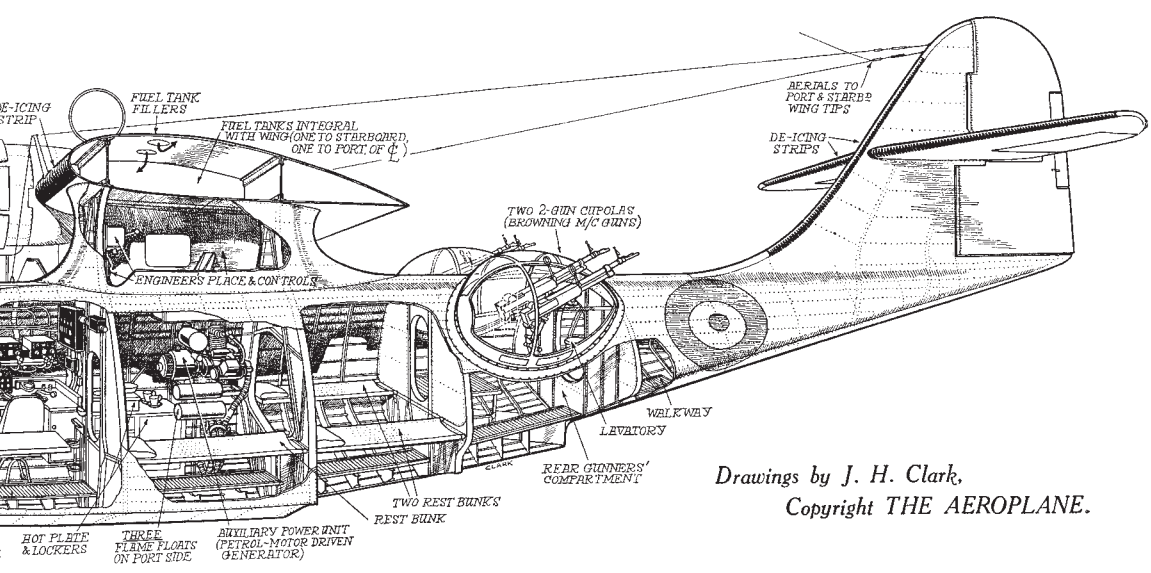




WEIGHTS.
 EMPTY : 14,240 lb.
 LOADED : 27,080 lb.

DIMENSIONS.
 SPAN : 104 ft.
 LENGTH : 65 ft. 1 in.
 HEIGHT : 18 ft. 6 in.
 WING AREA : 1,400 sq. ft.
 ASPECT RATIO : 7.7.

PERFORMANCE.
 MAXIMUM SPEED : 190 m.p.h. at 10,500 ft.
 RANGE : 4,000 miles at 130 m.p.h.
 INITIAL CLIMB : 1,100 ft. per minute.
 SERVICE CEILING : 25,700 ft.



Drawings by J. H. Clark,
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Faded and patched, war-weary PBVs dominate the deck of the escort carrier *USS Thetis Bay* in July 1944 as it transports its cargo, also including F6F Hellcats and a J2F Duck, from Hawaii to Alameda for repairs.



One of the most distinctive and best-loved shapes in aviation, the Consolidated Catalina. This version is a Naval Aircraft Factory-built PBN-1 Nomad, a variant derived from the PBV-5 but featuring a sharper bow, extended aft hull step and redesigned taller tail.



Some of the most famous PBV exploits of the war were those by the so-called 'Black Cats', black-painted Catalinas that carried out night missions in the Pacific theatre. US Navy examples in the South-west Pacific were hugely successful on night interdiction sorties against Japanese shipping.



Baptism of fire. Desperate efforts to save a burning PBV at NAS Kaneohe, Hawaii, after the Japanese attack of 7 December 1941. PBVs were sitting ducks when the Japanese attacked Hawaii on 7 December 1941. After the first striking wave, just 10 of 61 Catalinas stationed on the island of Oahu remained available — seven had been airborne, while two survived at Kaneohe and one at Wake Island.



The XPB2Y-1 prototype Coronado in its third modification fitted with a redesigned twin tail section to improve lateral stability. The tail fins on this version were practically circular, whereas production models featured a more oblong design, similar to those of the B-24 Liberator.

The big-brother of the Consolidated Catalina, the Coronado was meant to build on the success of its famous predecessor. However, its performance never fulfilled its promise and by the end of the war the Coronado was already outmoded, both as a bomber and a transport.

Within months of the first Consolidated PB2Y Catalina prototype taking to the skies, the US Navy instructed its manufacturer to produce a prototype of a larger flying-boat. First flown on 17 December 1937, Consolidated's aircraft was designated the XPB2Y-1 by the US Navy and was an all metal flying boat featuring retractable wingtip stabilising floats, a single tail fin and internal wing bays for its bomb load. Powered by Pratt & Whitney Twin Wasps, trials revealed serious lateral instability, resulting in the complete re-design of the tail assembly into a configuration similar to the Mariner. Production aircraft emerged with the characteristic deep hull and development continued throughout the war. The PB2Y-3, featuring self-sealing fuel tanks and additional armour, entered service just after the attack on Pearl Harbor and formed most of the early-war Coronado fleet.

RAF Coastal Command had hoped to use the Coronado as a maritime patrol bomber.

Consolidated PB2Y Coronado

However, the range of the big flying boat (1,070 miles) compared poorly with the Catalina (2,520 miles) and the Short Sunderland (1,780 miles). Consequently, the 10 Coronados supplied to the RAF under Lend-Lease were outfitted purely as transports, serving with RAF Transport Command's No 231 Squadron on freight services across the North Atlantic and between Africa and the West Indies. After the war ended five of the RAF aircraft were scrapped, one had already been lost in a collision with a PBM Mariner and the last four were scuttled off the coast of Bermuda in 1946.

Meanwhile, Coronados continued to serve as a major component in the US Naval Air Transport Service (NATS) in the Pacific theatre. Although most had originally been acquired as combat patrol aircraft, again its poor performance in relation to other comparable types quickly relegated them to transport service. By the end of the conflict, the Coronado had become obsolete and virtually all of the 210 aircraft built were quickly scrapped.

CONSOLIDATED PB2Y-3 CORONADO

Type: Long-range maritime reconnaissance/patrol bomber

Crew: 10

Length: 79ft 3in

Wingspan: 115ft

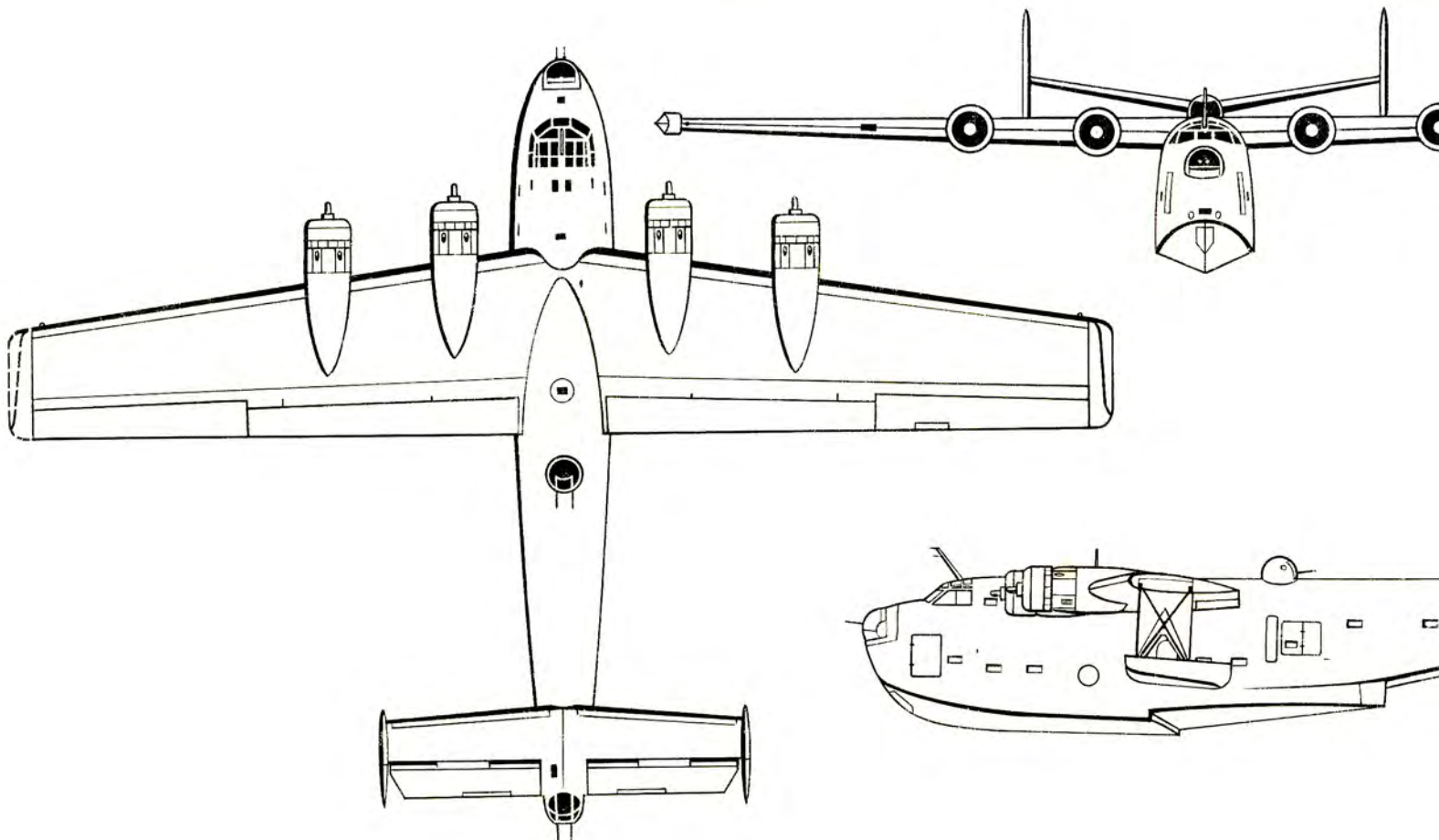
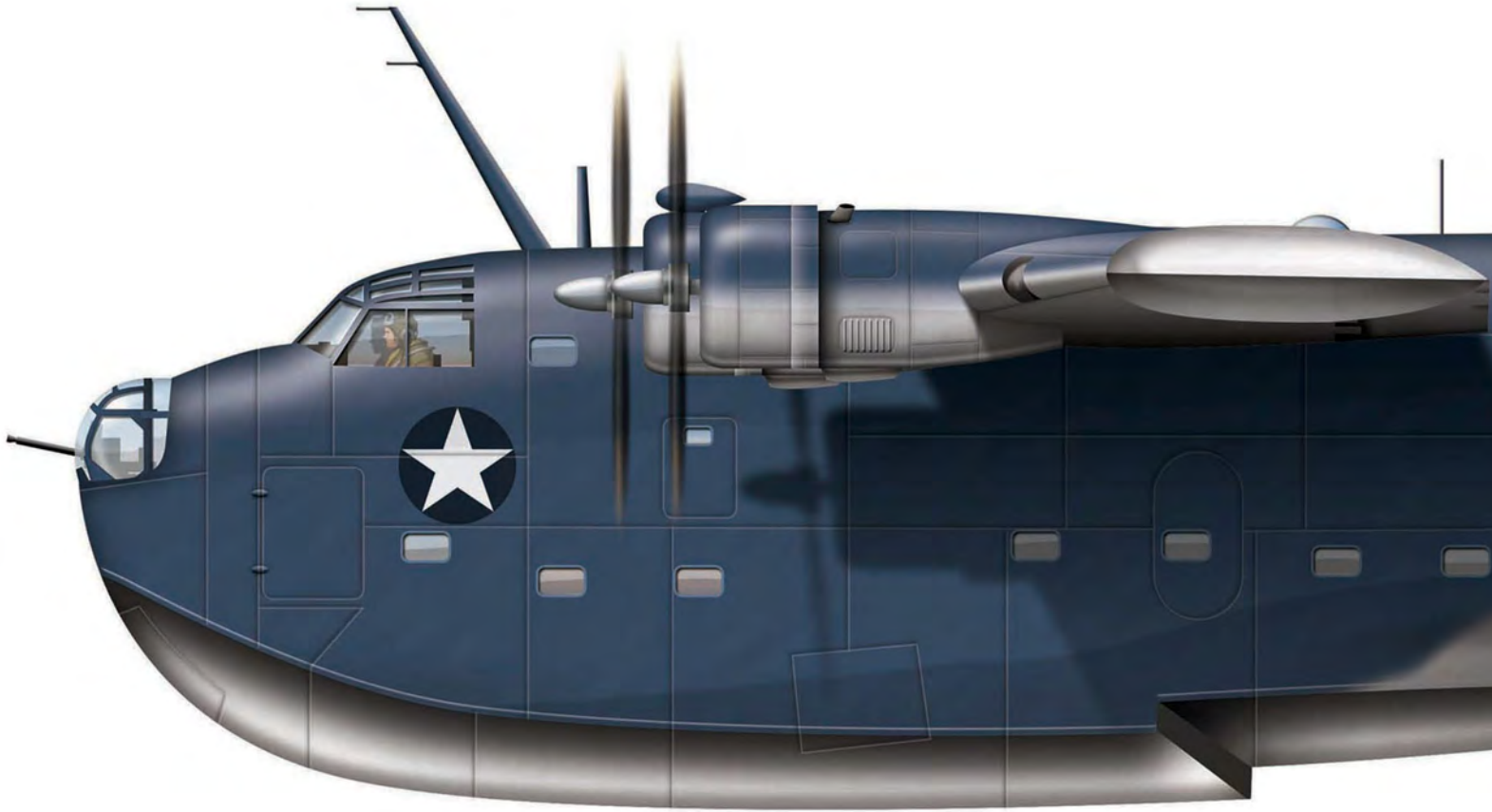
Powerplants: 4 x Pratt & Whitney R-1830-88 Twin Wasp (1,200hp)

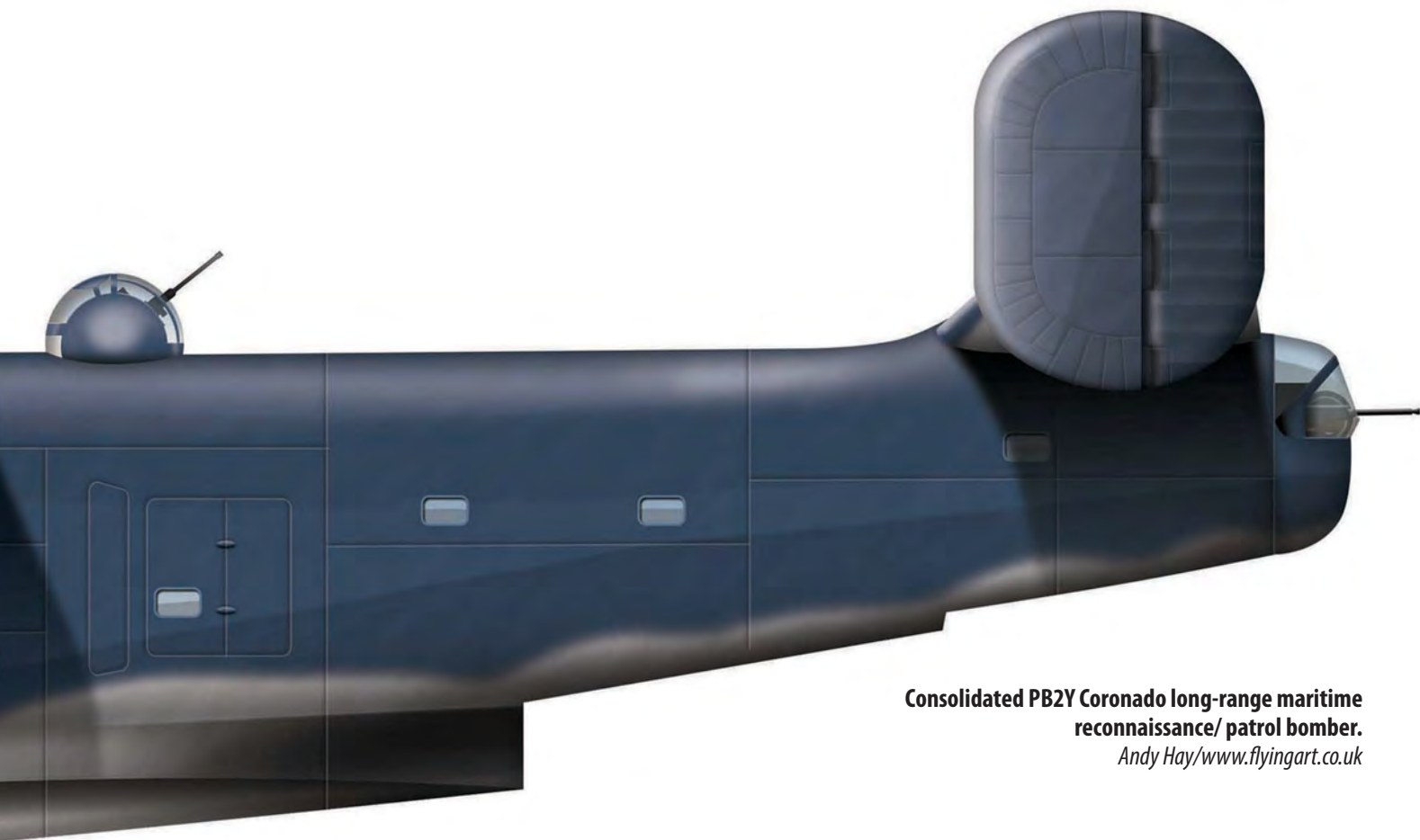
Loaded weight: 68,000lb

Max speed: 199mph

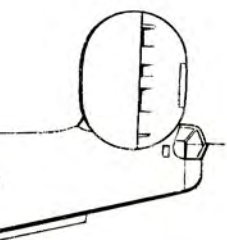
Armament: 2 x 0.5in machine guns in nose, dorsal and tail turrets and 1 x 0.5in in each of two beam positions, plus eight 1,000lb bombs internally (or equivalent) and four 1,000lb externally, or depth charges or torpedoes

Consolidated PB2Y Coronado

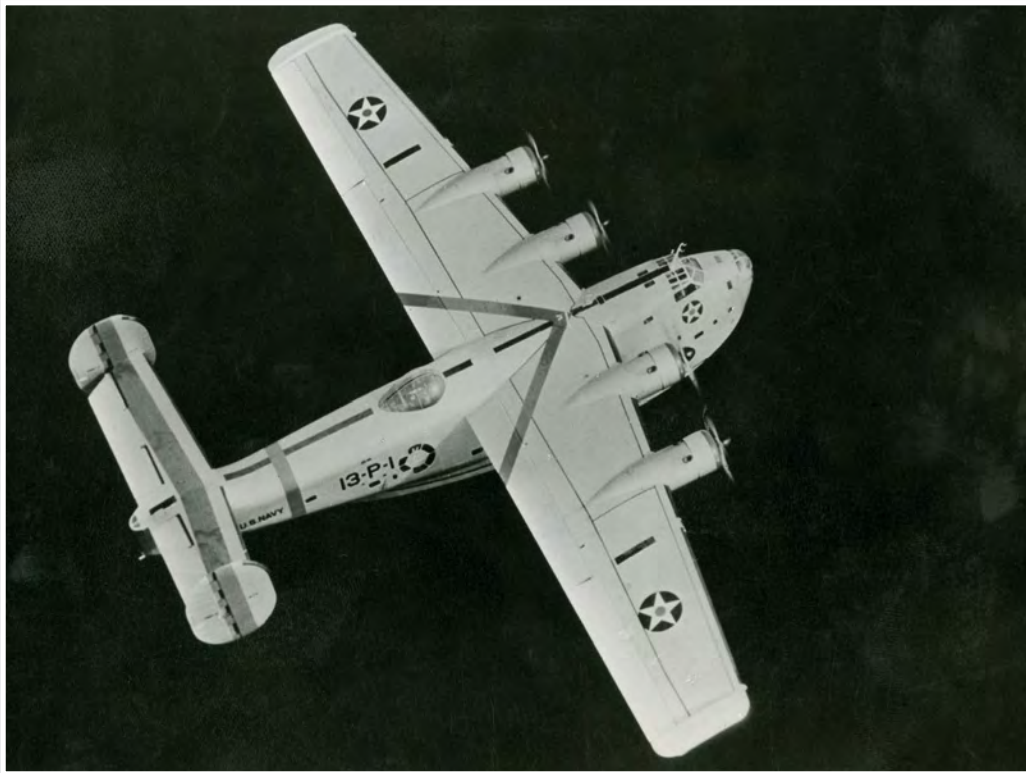




Consolidated PB2Y Coronado long-range maritime reconnaissance/ patrol bomber.
Andy Hay/www.flyingart.co.uk

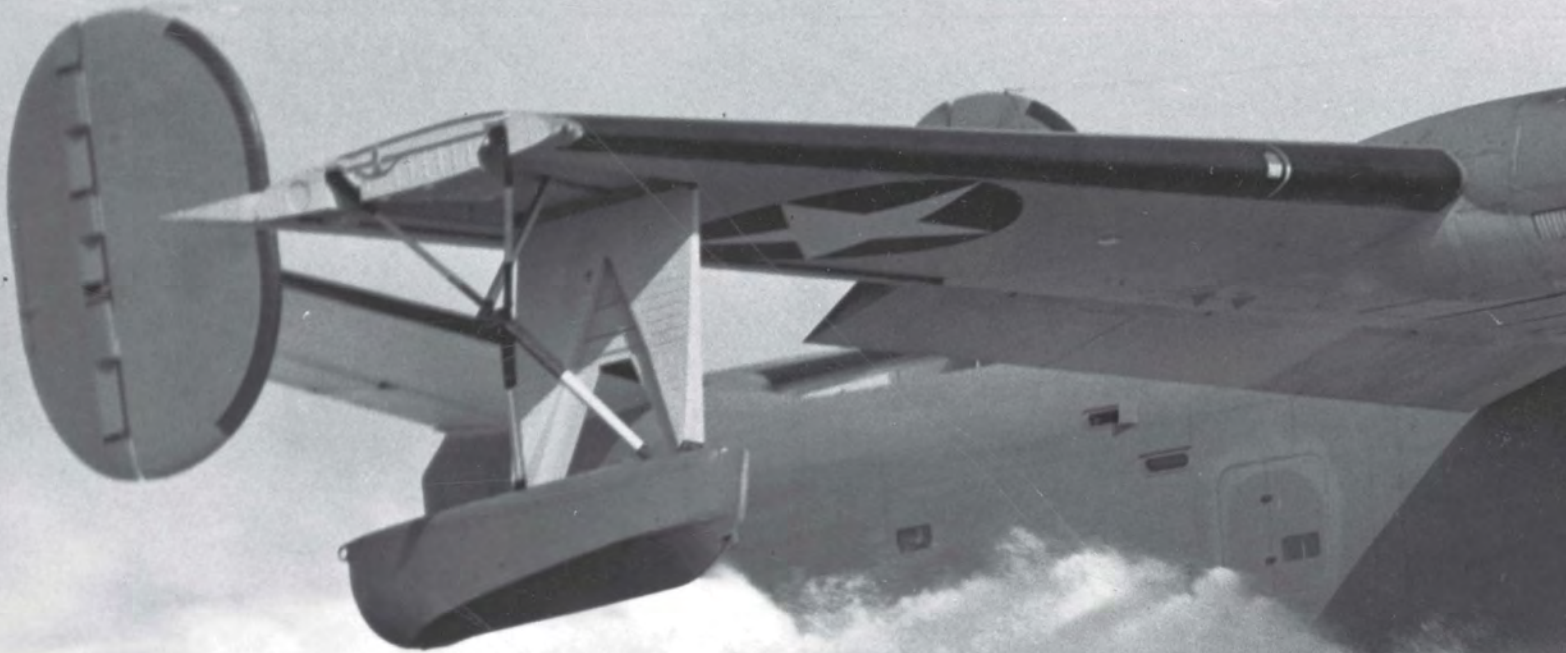


The Coronado was big in every sense of the word, but sadly its performance did not match up to its appearance. Designed for long-range maritime patrol, it was soon relegated to transport duties.

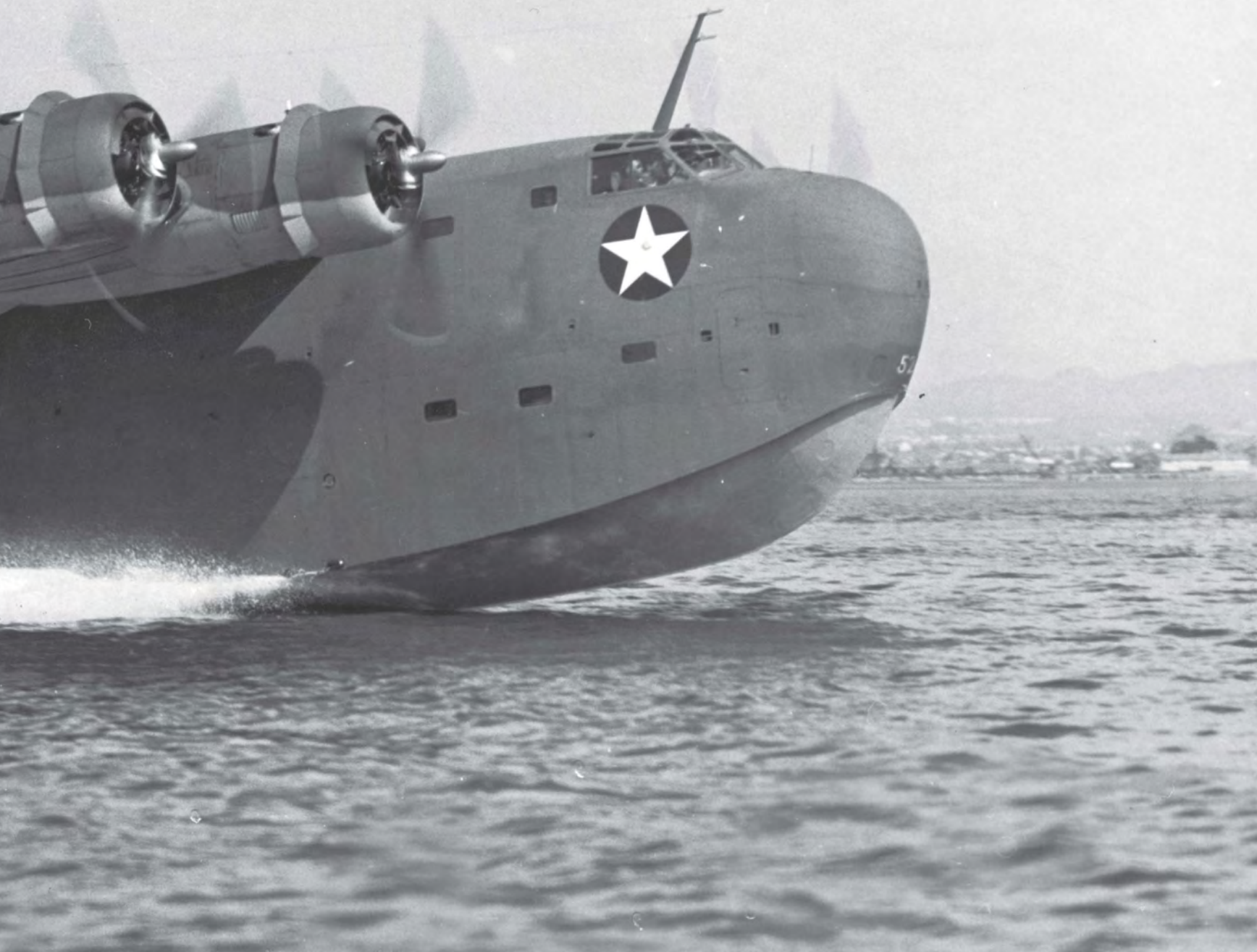
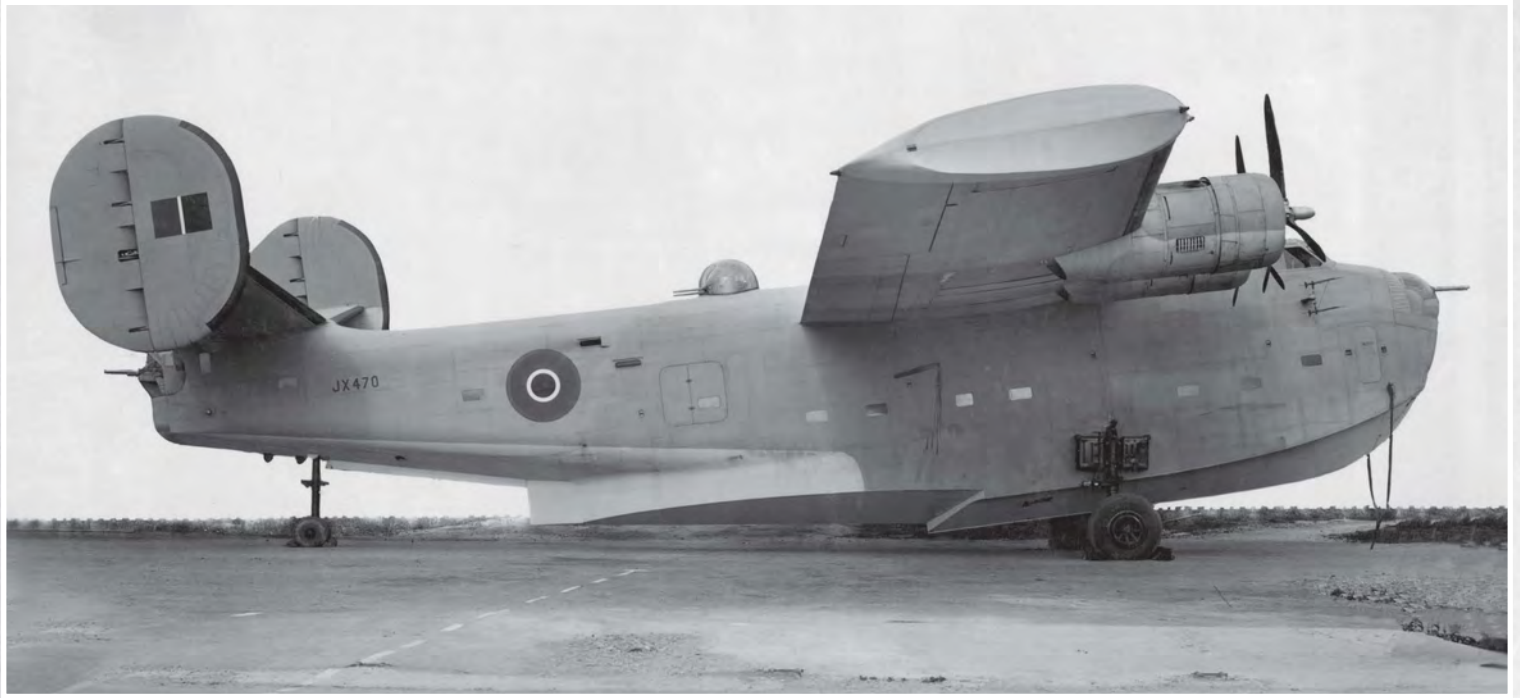


Left: One of the six PB2Y-2 flying boats delivered to US Navy Squadron VP-13 at a price of \$300,000 each — roughly three times the cost of a PBY Catalina. These Coronados were employed mostly for experimental purposes, lacking self-sealing fuel tanks and armour protection for the crew.

Right: The Coronado's career with the RAF did not follow the path that was originally intended. Instead of operating as a maritime bomber, its 10 Coronado GR1s (including JX470) were assigned to RAF Transport Command's No 231 Squadron on freight services across the North Atlantic and between Africa and the West Indies.



Up on the step. This Coronado was one of 31 converted to PBY2Y-3R transport standard, with faired over nose and tail turret positions. It could carry a crew of five and 44 passengers, or a 16,000lb cargo load.

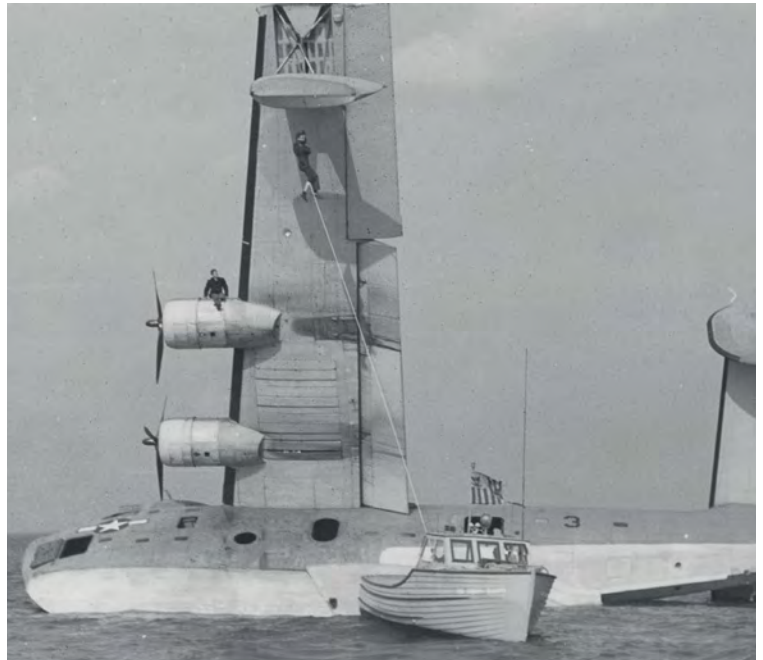




Despite the Coronado's short-comings in action, it performed a valuable service in the transport/hospital evacuation role in the Pacific. A handful of PB2Y-5Rs were also configured to act as flagships and staff 'barges'.



Fourteen PB2Y-5 Coronados of VP-13 and VP-102 anchored in the submarine basin at Sand Island, Midway Atoll, on 29 January 1944. These aircraft carried out four bombing raids on Wake Island between 30 January and 9 February 1944.



A Coast Guard vessel pictured during salvage operations with a PB2Y Coronado that lost a wing tip float on 29 October 1943, presumably during a heavy landing. Well shown are the doors to the internal wing bomb bays.



The performance of the Coronado PB2Y-5H was enhanced by JATO, jet assisted take-off rockets.



A Coronado 'sails off into the distance'. Following VJ Day, all surviving Coronados were rapidly retired and scrapped, the last having gone by the summer of 1946. In the Pacific Theatre many were scuttled or used for target practice by strafing Mustangs.