

THE HISTORY BEHIND THE MODELS

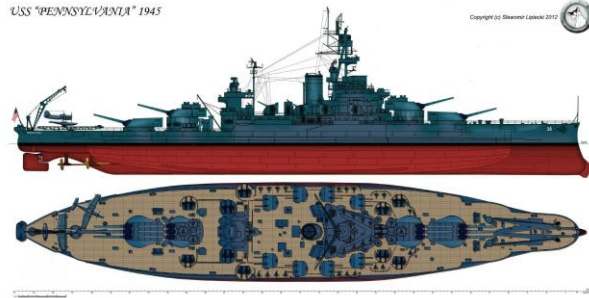
Pearl Harbor's Salvaged Battleships

By E. L. Motley



Ford Island today sits quietly at the center of the U.S. Navy's base at Pearl Harbor, Hawaii. Some of the island even appears abandoned. The naval air station is long gone. The deserted runways which once handled World War II era Wildcats and Dauntlesses are far too short for today's F/A-18 jets. Several large hangers stand empty, still pockmarked by bomb fragments and Japanese bullets. At the north end of Ford Island, housing for military families has replaced machine shops and storehouses. A long bridge now connects the island with Oahu. Warships no longer tie up along Ford Island. They're docked across the harbor where in 1941, the Navy Yard, Submarine Base and Hospital Point stood.

But on December 7, 1941, Ford Island was ground zero for the Japanese surprise attack. Seven battleships were moored along Ford's eastern shore. Savagely bombed, strafed and torpedoed by scores of Japanese warplanes, "Battleship Row's" resident dreadnoughts blazed and suffered amid a cauldron of flames, smoke, oil and explosions. Every one of the seven battlewagons was sunk or damaged. Amazingly, all but two of those battered ships were raised, repaired and sent out to fight again. The salvaged and rebuilt battleships of Pearl Harbor are truly a story of the Phoenix which rose from the ashes.



Besides the seven battlewagons anchored on Battleship Row, the U.S.S. *Pennsylvania* sat in dry dock across from Ford Island. On the other side of Ford Island was the ancient *Utah*. One of the Navy's oldest battleships (completed in 1911), *Utah* had been disarmed to meet treaty requirements and converted into a radio-controlled target ship. One other Pacific Fleet battleship, the *Colorado*, was in Bremerton, Washington, on December 7.



The Pacific Fleet's battleships were old vessels, the newest being the *West Virginia*, commissioned in 1923. She and her two sisters, *Maryland* and *Colorado*, were the first American battleships armed with 16" guns. The oldest battlewagons were the 1914 vintage *Nevada* and *Oklahoma*. Nearly identical in appearance with single funnels, tripod masts and ten 14" guns, they weren't totally sister ships as *Oklahoma* was driven by reciprocating engines instead of more modern steam turbines. Commissioned between the *Nevada* and *Maryland* were two more sets of sister ships, the *Pennsylvania* and *Arizona*, and the later *Tennessee* and *California*. The two *Pennsylvanias* were enlarged *Nevadas*, while the *Tennessees* were basically 14" gun versions of the *Colorado* class.

Compared to the latest generation of dreadnoughts such as Germany's *Bismarck*, Britain's *King George V* and Japan's *Yamato*, the Pacific Fleet's battleships were slow and obsolete. The four *Nevada* and *Pennsylvania* class ships were extensively modernized from 1927-1931. Their superstructures were raised; tripods replaced the original cage masts; the mechanical plants were upgraded and anti-aircraft guns installed. The newer *Tennessees* and *Colorados* received far fewer improvements. Still, in 1941, all of these ships were obviously from the World War I era.

A new wave of American battleships was on the way, 16” gunned heavyweights spanning the *North Carolina*, *South Dakota*, *Iowa* and *Montana* classes. However, when the Japanese struck, only the *North Carolina* and the *Washington* had been completed. The first two of four *South Dakotas* would soon follow.

The destruction of Battleship Row began at 7:55 AM with 40 Kate torpedo bombers striking with aerial torpedoes specially modified for use in Pearl’s shallow water. A neatly anchored line of battleships running from the *California* to the *Nevada* offered the Japanese the proverbial row of sitting ducks.



Oklahoma capsized after nine torpedo hits (including one now believed to have come from a Japanese two-man submarine). *Oklahoma*’s watertight doors were left wide open for a Sunday inspection. Over 400 crewmen died. *West Virginia* was also hit by nine torpedoes, but her crew was able to counterflood her, and she slowly settled on the harbor bottom on an even keel, most of her topsides remaining above water. *California* sank after taking three torpedoes and a bomb hit, her deck also awash with the surface of the harbor. *Nevada* was struck by a torpedo, but with her boilers already lit and steam up, she actually started moving down the channel.



Anchored inboard of the *West Virginia*, *Tennessee* was spared torpedo damage, but was struck by two bombs. Damaged least of all were the *Maryland* (shielded by the doomed *Oklahoma*) and the *Pennsylvania*, hit by a bomb while in dry dock. On the

other side of the harbor, Japanese pilots mistook the old *Utah* for a front-line battleship. She was torpedoed twice and sank with 58 crewmen.



Suffering the worst fate of all was the *Arizona*. Somewhat protected from torpedoes by the repair ship *Vestal* anchored next to her, *Arizona* was attacked by both dive and level bombers. An armor-piercing bomb converted from a 15” artillery shell penetrated the *Arizona*’s deck near the forward 14” gun turret. That bomb detonated the forward magazines and blew the ship in half. Over 1,100 men were literally killed in a flash. The blast and fireball from *Arizona*’s explosion damaged adjacent vessels as well. The fires were so intense that the *Arizona* burned for two days. Indicative of the inferno, all that was found of the admiral who was aboard the *Arizona* was his Naval Academy class ring literally welded to a railing.

Nevada’s attempt to sail out of the harbor drew Japanese dive bombers looking to sink her in the main channel. Heavily bombed, on fire and down by her bow from the earlier torpedo hit, *Nevada*’s captain ordered her beached on Hospital Point.

Apart from the battleships, other vessels were either sunk or seriously damaged. Anchored behind the stricken *Utah*, the light cruiser *Raleigh* was hit by a bomb and a torpedo. *Raleigh* listed dangerously, and nearby utility barges were lashed to her port side to keep her from capsizing. Not so fortunate was the old minelayer *Oglala*. She rolled upside down after the shock wave of a torpedo hitting the cruiser *Helena* split open the *Oglala*’s hull.

The *Pennsylvania*’s dry dock offered no sanctuary for the two destroyers ahead of her, *Cassin* and *Downes*. Multiple bombs struck both ships, setting them afire. When the dry dock was flooded to extinguish the flames, the *Cassin* rolled onto the *Downes*, compounding the damage. Another destroyer, the *Shaw*, sank after her exploding ammunition blew her bow off.

Once the smoke cleared and the fires were extinguished, salvage operations quickly began. The *Arizona* and *Oklahoma* were obviously total losses with many dead. After two years of intensive labor to clear the wreckage, *Oklahoma*’s hull was patched and refloated, but she sank at sea in 1947 while being towed to California for scrapping.

Arizona remained in place as a memorial to her crew. She still occupies her berth today, the final resting place for most of her men and still leaking fuel oil from her tanks. *Utah* also is still on the harbor's bottom as the tomb of her lost crewmen.

Thankfully, the Japanese largely ignored Pearl Harbor's repair facilities, fuel stocks and the submarine base. Even more crucial, all three of the U.S. Pacific Fleet's aircraft carriers were at sea and avoided the attack. Seven months later at Midway, the Japanese would pay dearly for missing the aircraft carriers.

A herculean effort to repair or rebuild Pearl's battleships took nearly three years. Part of the work was a matter of pride, but when the task started in early 1942, no one had any idea how long the war would last or what would happen next. Japanese carrier strikes on the U.S. west coast were not out of the question. Every ship possible of every type was urgently needed. While the battleships took priority, even the elderly *Oglala* and the *Shaw* were salvaged, rebuilt and returned to duty. Machinery from the shattered destroyers *Cassin* and *Downes* was recovered and used in new destroyers bearing their names.

Suffering the least damage, *Maryland*, *Tennessee* and *Pennsylvania* were the first of the battleships to return to service after repairs. The sunken *California* and *West Virginia* required much more work. After being raised, *California* underwent a total reconstruction that lasted until May, 1944. Her cage masts and casement guns were removed and a combined tower/funnel superstructure like the *South Dakotas* was added. Heavy AA armament from 20 mm mounts up to twin 5" gun turrets was added. By the time *California* sailed off to fight at Saipan, she looked nothing like the 1920's dreadnought sunk on December 7.

Tennessee was soon repaired and served through much of 1942, patrolling off Hawaii and the U.S. west coast. In December, 1942, she began a major overhaul similar to *California's*. She rejoined the fleet in 1943, looking much like her modernized sister ship, the *California*, as well as the new *South Dakota* class ships.

After being refloated, the battered *West Virginia* underwent a two-year total reconstruction. The formula was basically the same as *California* and *Tennessee* : a modern tower superstructure with the latest range finding, fire control and radar equipment, more armor protection in parts of the ship, new 5" secondary armament set in turrets, and many, many more anti-aircraft guns.

Pennsylvania, *Nevada* and *Maryland* retained much of their pre-war appearance. After bomb damage was repaired, *Pennsylvania* patrolled the Pacific coast and then began a major overhaul in late 1942. She emerged from the dockyard in 1943 bristling with twin 5" gun turrets. Range finders and radars were arrayed where her boat deck and aft tripod mast had stood. However, her single funnel and forward tripod

mast remained, leaving her much the same from the smokestack forward as she looked in 1941. Despite *Nevada's* heavy damage and beaching, her repairs left her looking similar to *Pennsylvania*. *Nevada's* funnel was raised unusually high and raked back from the forward tripod mast.

Maryland changed least of all. Her Pearl Harbor damage was repaired in 1942, and she quickly returned to service. She was overhauled in 1943, but even then, the most notable changes were her aft cage mast becoming a stump and more AA guns added. By 1945, the aft cage mast was totally gone and 5" turrets replaced the old casement gun mounts. Yet *Maryland's* forward cage mast and two skinny funnels still remained from her 1921 commissioning.

Once refurbished and returned to active duty, these Pearl Harbor survivors gave excellent service in both the Atlantic and Pacific. Although too slow to escort the new *Essex* class aircraft carriers, the old battlewagons guarded many convoys, backed up the carrier task forces and bombarded Japanese-held islands and German coastal fortifications. They shelled Axis troops from Normandy to Iwo Jima and did their share in the long task of avenging Pearl Harbor. Still tough ships, they withstood hits from enemy shore batteries and kamikaze attacks. *Pennsylvania* was heavily damaged by an aerial torpedo in the closing weeks of the Pacific war, but survived.

Quite fittingly, a squadron composed of *Maryland*, *West Virginia*, *Tennessee*, *California*, *Pennsylvania* and *Mississippi* lined up and smashed a Japanese force at Surigao Strait in October, 1944. It was the last fight between battleships, and the 18 minutes of broadsides leveled against the Japanese is still considered some of the best gunnery in U.S. Navy history. By 1945, the aircraft carrier was the supreme type of warship, but the reborn battlewagons of Pearl Harbor had more than done their duty. They were indeed the Phoenix rising victorious from the inferno of Pearl Harbor. Sadly, none of these great ships survive today. *Pennsylvania* and *Nevada* were A-bomb targets at Bikini Atoll in 1946. The rest spent years in the "mothball fleet" before being scrapped in the 1950's.

Now more than 75 years after "the day of infamy," a great American battleship still stands watch over Ford Island. Moored as a museum ship just ahead of the *Arizona* Memorial is the U.S.S. *Missouri*, the ship on which Japan surrendered. Appropriately, the *Arizona* and her brave crew rest in peace behind one of the magnificent warships which sailed out to avenge her.

REFERENCES AND RECOMMENDED READING:

Attack on Pearl Harbor: Japan Awakens a Sleeping Giant, Bert Kinzey (Military Aviation Archives, Inc., 2010). This is an outstanding reference book superbly illustrated with black and white and color photographs. The book appeals to both history buffs and scale modelers with excellent color profiles depicting the principal Japanese and American aircraft in Hawaii at the time of the attack. There are similar profiles of the U.S.S. *Arizona*, U.S.S. *Ward* and other vessels as well as color maps and detailed accounts of all U.S. Navy ships lost or damaged in the attack.

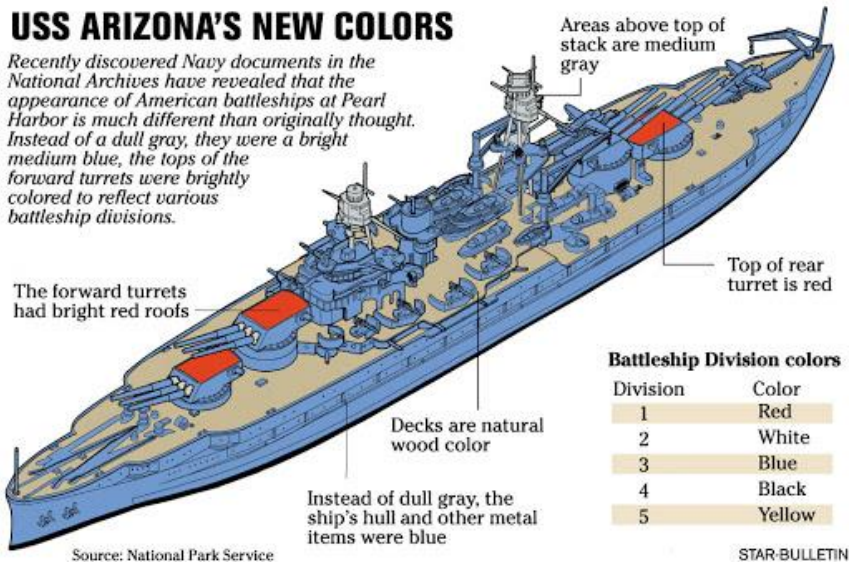
Battleships of the U.S. Navy in World War II, Stefan Terzibaschitsch (Bonanza Books, 1977). Thoroughly illustrated with black and white photographs and line drawings, Pearl Harbor's battleships ranging from the *Utah* through the *West Virginia* are well detailed. This book covers all of the U.S. Navy's capital ships from the *Wyoming* through the *Iowa* classes, as well as the *Alaska* class battlecruisers. Pages are also devoted to the cancelled 1920's *South Dakota* and *Lexington* classes along with the planned successors to the *Iowas*, the *Montana* class.

Air War Pacific, Christy Campbell (Crescent, 1990), is a concise and well-illustrated history of World War II in the Pacific with particular emphasis on the role of naval air power. Includes color illustrations of important Allied and Japanese aircraft.

Day of Infamy, Walter Lord (Henry Holt & Company, Inc., 1957). Probably still the best all-around account of the Pearl Harbor attack, Lord's classic work reconstructs one of America's darkest days through eyewitness accounts and moment by moment narrative.

Pearl Harbor, A. J. Barker (Ballantine Battle Book No. 10, Ballantine Books, 1969). Unfortunately now long out of print and one of Ballantine's outstanding histories of World War II battles, weapons and personalities, Colonel Barker's book covers the growing tensions in the Pacific in the 1930's, Japan's preparations for war and the devastating attack on Pearl Harbor.

PEARL HARBOR'S BATTLESHIPS FOR SCALE MODELERS



For decades, the only available injection plastic model kits of American Pearl Harbor ships were Revell's classic *Arizona* and the "four piper" First World War *Wickes* class destroyer packaged as various ships over the years. At times, Revell sold the *Arizona* kit as the sister ship *Pennsylvania*. The WWI destroyer kit also showed up on hobby store shelves as the *Buchanan*, the *Aaron Ward*, the *Campbeltown* (after transfer to the British)...and the *Ward*.

Both the *Arizona* and *Ward* were popular moldings for Revell. With the battleship being in 1/426 scale and the destroyer at 1/240, it is assumed that both models are "box scale" (i.e., the plastic model inside was sized to fit the available box instead of vice-versa). Revell's *Arizona* was released in 1957. I remember first seeing it in late 1965, when one of my sixth-grade friends (a classmate who introduced me to "the plastic arts") built one. The *Ward* destroyer kit followed in 1960 as the U.S.S. *Buchanan*. From what I can gather, this four-piper destroyer was last released in 1987, but the *Arizona*, despite all the recent corporate upheaval at Revell, remains in production. I saw the Revell *Arizona* kit in stock at Michaels just a few weeks ago.

My hunch has always been that the old Revell 1/426 *Arizona* kit depicts the ship as she appeared in the early 1930's following her extensive modernization. There were numerous details aboard her that were quite different on the ship sunk at Pearl Harbor. This also holds true for the kit's presentation as the *Pennsylvania*. I'm also assuming the same applies to Revell's 1/240 *Wickes* class destroyer being packaged as the *Ward*. For the frugal and semi-competent modeler such as me, these kits are, at best, pretty good representations of the *Arizona* / *Pennsylvania* and the *Ward*. Serious and contest-minded ship modelers will want something far more detailed and accurate.

Revell also released a 1/720 kit of the *Arizona* in 1967. This was not a scaled down kit but rather a new mold which could be built as either a full hulled or waterline model. It was re-released several times (including under the Matchbox label in 1993). The last release appears to be by Revell in 1997. For me, this kit is like most 1/700 (or so) scale ships...too small, too fiddly and a waste of time and money. That said, those who like 1/700 scale and don't mind the eyestrain (and paying an awful lot of money for a meager amount of plastic), should check out Trumpeter's 1/700 scale kits of the 1941 *Maryland*, *West Virginia*, *California* and *Arizona*. Trumpeter also has later war versions of the *Maryland* and *West Virginia*, as well as the *California* and *Colorado*.

Over the last decade or so, many more 1/350 scale kits of World War II and modern warships have been released. Trumpeter's companion company, Hobby Boss, offers a 1/350 scale *Arizona* in her 1941 configuration. Again, for the 1/700 builders, Hobby Boss also lists a 1941 *Arizona* (possibly the same kit as in the Trumpeter boxing). And if you REALLY want to "go large," Trumpeter has a 1/200 *Arizona* in her 1941 guise. I am assuming that for all of these Trumpeter and Hobby Boss kits (and possibly still even for the old 1/426 Revell *Arizona*) aftermarket parts, including a variety of photoetch, are available.

