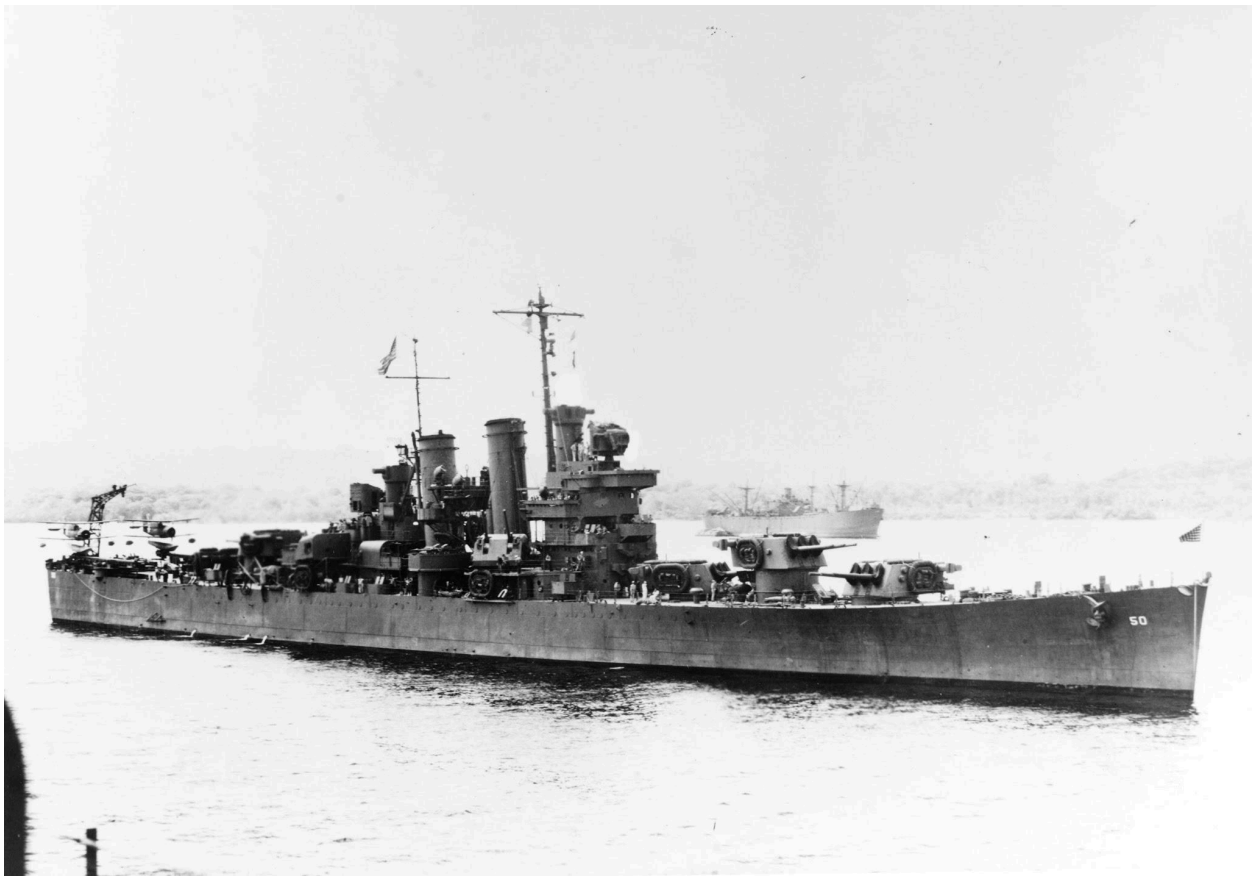
Original essay open source military history
non-ai, 2022, USS Helena:



I'm beginning to realize I'm horrible at proofreading and trying to correct for it, I have been going through and editing my USS Helena post. I am deciding to repost the updated version of it.

Most people would say their favourite ship would be something big, mighty, and impressive. Well, unless you are Dr. Alex Clark that falls head over heels at the sight of HMCS Haida (I probably would too as a Canadian, I need to visit her. Granted I am living across the country from her).

But, for me as a firearm/naval gunnery enthusiast I have developed a fondness for a single ship:

The Maximum Dakka machine: USS Helena CL-50 of the Saint Louis class of light cruisers...

The Brooklyn class and Saint Louis sub-class light cruiser were a new generation of the ship for the United States Navy built in response to the Mogami class cruiser which when built was armed with an unprecedented battery of 15 15.5 cm(6")/60 3rd Year Type naval guns (later rearmed to the 20 cm/50 3rd Year Type naval gun).

The US response? Go full Dakka: They created the 6"/47 Mk.16 gun using the super heavy AP shell that vastly increased penetration over older designs, created a feed system that allowed for the insane reload time of 6 seconds with manual loading, strap 15 of the blasted things to a 1930's design cruiser that had better armour than the USN treaty heavy cruisers of the era on a similar displacement, thus creating a super powerful surface combatant with enough power to just beat an enemy into submission with sheer dakka in the packaging of a "light cruiser"...

The sheer volume of fire Helena and her sisters could output would just smother a target:

"As for the 6-in battery, it fulfilled expectations: Very high volumes of fire (ten rounds or better per gun per minute in some ships) were achieved in experimental firings off Guantanamo Bay in March 1939. The Savannah's captain reported that the target was "simply smothered." The Honolulu's wrote that "those who saw this practice said [that] it looked almost like a stream of bullets playing on the targets, which were almost continuously obscured and drenched by water." The rate of fire was reduced only at ranges so great that guns had to be depressed to load. As for the salvo issue, typically a ship fired a "ladder" to find the range, then shifted to rapid fire. The Savannah, for example, fired an opening-up ladder with a 600-yard spread: fourteen shells well short, fourteen (fired within a two-second interval) well over, then full rapid fire by individual guns, 138 shots being fired in one minute."

For reference when you calculate the fire rate of HMS Belfast a Town class and equivalent design of the same era, she can do 90 rounds a minute.

The maximum theoretical rate of fire of Helena is a hilarious 150 rounds per minute just with the main battery since they can do 10 rounds a minute with a 6-in manually loaded gun, um, yeeeeaaahhhhh:

I can see why USN gunnery expert and personal hero Rear Adm. Willis "Ching" Lee loved these ships while serving aboard them as part of Adm. Starks staff pre-war on the USS Honolulu. Just like Admiral Lee, I would be having my mouth to the floor watching this amazing display of Firepower.

The major difference between the two subclasses of the Brooklyn's and St Louis's was mainly the machinery layout that improved survivability. However, Saint Louis and Helena had enhanced dual-purpose firepower with the addition of twin 5"/38 mounts over the Brooklyn classes 5"/25 single mountings.

Now imagine what I just describe about these ships and their main battery. But, now you have 4 twin mounted 5"/38 Mk.12 duck taped to each side to even more enhance that anti-surface firepower...

(if you're not familiar with this rifle, the 5-in 38 is one of the finest pieces of Naval artillery ever developed for the Dual Purpose role, their rates of fire are a hilarious 15 to 20 rounds a minute)

As a gunnery nerd: 😌.

What makes it even more insane was that USS Helena specifically was able to be fully refitted during repairs form being torpedoed during Pearl Harbor (during which despite the damage gave a good record of herself and shot down 6 planes) allowing her to have a full suite of modern gunnery radar fitted and every inch of her deck taken up by 40mm Bofores and 20mm Oerlikons.

(Which actually oddly enough you can thank Willis Augustus Lee for doing this, as chief of staff to Fleet Admiral King, Willis sent his assistant to the Bureau of ships in late 1941, he understood the aircraft would be a major Rising threat and his assistant had a paper bearing Willis Augustus Lee Signature asking Bureau of ships acquire the said guns and not the installation.

They agreed to the acquirement of said anti-aircraft guns for the entirety of the fleet and nothing else. Well, Willis Augustus Lee in his practical logic understood that sometimes you need to break the rules to get through the bureaucracy of the organization that was the United States Navy of the era:

He took the paper and then modify it to be for the acquirement AND installation of said guns 🤣. He was a math whiz and calculated how many guns could fit on every ship in the Navy before the Bureau of ships could even do it. If it's stupid but it works, it isn't stupid oh I love this man.

For reference, Willis Augustus lee was a prolific shooter who had seven Olympic medals in shooting in the 1920 Olympics and was a Gunnery expert within the United States Navy, on top of that he was an amazing administrator from about 1940 to 41 that prepared the US Navy for war and he's very underappreciated in that regard for my personal opinion.)

If she wasn't a gunboat already, she's now literally the definition of one:

Basically, the ship allowed every sailor to exercise his second amendment rights 🤣.

Her suite was 3x5 6'/47 Mk.16, 2x4 5'/38 in twin Mk.33 mounts, 4x4 40mm Beaufort and 1x12 20mm, and all of that was guided by SG surface search radar, SC air search radar, FC fire-control radar, and FD fire-control radar on a displacement of around 13,300 tons fully loaded by the end of that refit. This is kinda impressive given her decent armour layout that gave the ship good survivability in a gun battle.

She became an absolute predator and would prove it during her surface engagements in the Guadalcanal campaign during October and November 1942 being credited with the shared sinking of Furutaka during the Battle of Cape Esperance (October 12, 1942) with accurate radar-guided rapid salvos killing the Commander of the Japanese taskforce Adm. Gotō within her first salvo...

She was in the knife fight of the 3rd battle of Salvo Island or the first naval battle of Guadalcanal (November 12th, 1942) which included two of the Kongo class light fast battleships (The Kongos during WW2 were modernized battlecruisers. To me they don't have the armour of a full-on fast battleship and hence why I call them "light" fast battleships). A Japanese force, centred on the fast battleships Hiei and Kirishima, was also approaching intending to shell the American troops. As a result, these two forces collided in a battle known as the Naval Battle of Guadalcanal.

The ships encountered each other at close range, causing confusion among the American units. In the following engagement, Helena engaged in a closet knife fight with every gun that she had going first after the destroyer Akatsuki, which was then engaged by multiple vessels and sank.

She then hit the destroyers Amatsukaze, Murasame and Samidare with rapid salvos of 6-inch rounds which caused heavy damage. During all of this chaos the cruiser Nagara steamed by and one of Helena's 40mm mounts decided to join the party firing at the cruiser as it went by. However, during this time, the flagship San Francisco had been hit by multiple battleship-grade rounds from the battleship Hiei, and Helena rushed to protect her.

Her rapid salvos smother the battleship along with fire from the rest of the fleet and forcing Hiei to withdraw and later sink due to the combination of battle damage and Air Attack. In the engagement, two American destroyers were sunk and 4 more ships heavily damaged; Helena herself emerged relatively unscathed. The Japanese squadron lost the battleship Hiei, as well as two destroyers.

Helena is also the first ship in the USN to use the game-changing radar proximity VT fuze in combat:
"On 5 January 1943, USS Helena’s aft 5" battery shot down a Japanese dive bomber with the second of three salvos of VT fuzed shells near Guadalcanal in the Solomon Islands. RADM (CAPT) Parsons was on board to witness and verify the effectiveness of VT-fuzed antiaircraft fire. From this point forward, VT fuzes continued to show effectiveness in downing enemy aircraft and saving lives, especially from kamikaze attacks. By the end of the war, VT fuzed antiaircraft fire sustained a 70% success rate."

Unfortunately, this amazing gunboat life came to an end in July 1943:

"On July 4th of 1943, Helena was part of an invasion squadron to land troops at Rice Anchorage. She proceeded to bombard the Japanese positions under the cover of darkness along with the other cruisers and destroyers, but her shell flashes alerted a force of three Japanese destroyers who had been tasked with landing reinforcements for the Japanese

garrison. The destroyers withdrew, but not before they fired 24 Type 93 'Long Lance' torpedoes at the Americans. Helena was not hit, but a destroyer was sunk and the convoy turned to avoid what was believed to be a submarine (the Americans failed to sight the Japanese destroyers). During this time, Helena's #2 ammunition hoist broke down and her #5 guns suffered a jam.

These issues were resolved as she steamed towards the Kula gulf, the next night, the Japanese force returned with 10 destroyers, intending to land the troops again. The American force closed in, and soon after, the Japanese force detected the American squadron using their radar. The Japanese force then began a determined attack with gunfire and torpedoes while the Americans fired back. In the course of 3 minutes, Helena, along with her other cruisers, fired over 1,500 6-inch rounds at the enemy. The destroyer Niizuki was sunk, and the Americans turned right to follow the fleeing Japanese destroyers.

However, shortly after the initial engagement, Helena was hit by a torpedo launched by the Japanese destroyers. The torpedo caused extensive damage and exploded the forward magazines, ripping her bow off of the ship. However, she continued to steam forward at 25 knots. Soon after, she was hit by an additional pair of torpedoes deep under the waterline which broke her keel and flooded the machinery spaces - with no power, the order was given to abandon ship. Soon after, the broken keel caused Helena to break into three parts - the midsection sank quickly while the stern and bow remained afloat.

At this point, the American force had not yet realized that Helena was destroyed - however, after failing to contact her, they found her wreck and rescued many survivors from the water. Over 100 men were not rescued and ended up on a Japanese-occupied island, where they were protected by coastwatchers and eventually rescued on July 15th. Helena's name was carried on by a Baltimore-class cruiser launched in 1945; her wreck was eventually located in 2018 by an expedition carried out by the late Microsoft founder Paul Allen."

To sum up:
Helena always performed above average and seemed to have spot-on radar operators during her surface engagements, usually detecting Japanese out to 27,000 yards with her powerful SG radar. Unfortunately, command and control were lacking early in the war, plus most admirals leading taskforces didn't fully understand the technology leading to repeated disasters during the Guadalcanal campaign. Despite that Helena always walked always with a ship or two sunk under her belt.