

Air and Space this Week

Item of the Week

The Sinking of the IJN Shinano

Originally appeared November 25, 2019 and January 20, 2020

[KEY WORDS: “Shinano” “Archerfish” “DeForest Kelley” “The Silent Service” “connections”]

The IJN Shinano was the largest aircraft carrier built up to that time. Aerial attacks on her home port during outfitting forced her to move and become vulnerable to submarine attack. The USS Archerfish under the command of Joseph Enright pursued her doggedly for many hours before sinking her, the largest single sinking of the War to any cause. The story has some interesting connections, too...

The following dates/anniversaries/birthdays are tied to the story:

- *Sinking of the IJN Shinano* 29 November 1944
- *Actor DeForest Kelley’s birthday* 20 January 1920

This part first appeared on 11/25/2019:

The Japanese built the two largest [battleships](#) in WWII, the *IJN Yamato* and the *IJN Musashi*. Both would be sunk by massed air attack late in the War. However, several sister ships were planned. Only one was built, but after the losses at Midway, it was converted to an aircraft carrier during the construction process, the [IJN Shinano](#). Since her hull was that of a battleship, the Japanese were hopeful she could withstand combat better than a more lightly-armored ship. Great pains were taken to conceal her existence from the Allies. She was afloat and undergoing outfitting, but still had a number of deficiencies, including a green crew and incomplete watertight integrity, by November, 1944.

[Joseph Enright](#) had been in submarines for years. However, he was disheartened by long periods of combat and malfunctioning torpedoes, and requested assignment to other duty. After a rest period, during which the torpedo problem was corrected, he decided to apply for reinstatement to submarines, a request facilitated by a demonstration of steady nerves in a high-stakes poker game with the brass. He was assigned to be the captain of the [USS Archerfish](#) (SS-311).

Carrier aircraft and B-29’s were now attacking Japan’s home islands. The location of the [Shinano](#) was deemed too exposed, so plans were made for her to make a two-day dash from Yokosuka through Kii Suido to Kure, which had better aerial defenses. Alas, *en route* she encountered Enright.

Shinano was escorted by three battle-damaged destroyers. Her skipper was very concerned he would encounter a submarine wolfpack, based on the destructive activities of submarines

hunting in coordination off Japan. He had no air cover, and would rely on *Shinano's* speed, very close escorting by his destroyers, and zig-zagging to evade them.

Enright detected *Shinano* by radar. His best surface speed was slower than his target, and he could not readily gain a firing position. However, this was basically a shakedown cruise for *Shinano*, and she was not yet fully operational. A set of the main propeller bearings were a bit mis-aligned, and overheated, slowing the carrier to the *Archerfish's* maximum surface speed.

As *Archerfish* approached, it was seen by one of the destroyers, which turned to attack. Enright was on the verge of having to dive, which would cost him any chance at *Shinano*, when *Shinano's* captain ordered the destroyer back to its close escort position. Had he not done so, *Shinano* would have likely made port without damage. On such on-the-spot decisions depend deep outcomes.

Enright was pushing *Archerfish's* engineering plant really hard, and was able to keep up with *Shinano*, but not gain enough to be able to shoot torpedoes effectively. The chase had been going on for several hours, and Enright was getting increasingly concerned about his engines. Then the *Shinano* commenced a routine evasive zig that slowed her advance and allowed for *Archerfish* to get into firing range.

Submarine officers would talk tactics when in port, the Officers' Club was the favorite place for such bull sessions. During the long approach, Enright had remembered a bit of advice imparted by an experienced captain. He had said that if he ever had a crack at a large carrier, he would set his torpedoes to run shallow, in order to create holes high in the target's hull that would cause them to list heavily, and likely capsize (since aircraft carriers have a high center of gravity), rather than the proscribed depth that would hurt the carrier but the flooding would be deep, less likely to cause capsizing. So Enright ordered his ready torpedoes to be set to run shallow.

Battleships wear thick side armor to protect against shells fired from long range, which come in at shallow trajectories. They have less-well armored decks and bottom armor, otherwise they'd be too heavy. *Shinano's* hull was that of a big battleship, and the first ten feet of her hull below the waterline had much heavier than normal armor. The hull below, however, was designed to protect against torpedoes, comprising a double hull with water in between to dissipate torpedo explosions. The framing at the seam at the hull transition had horizontal H-shaped beams, with the bottom of the H holding the outer hull and the upper legs of the H anchored on the next compartment inboard.

Enright fired a full six-torpedo salvo from the bow tubes, spread to ensure that some would hit. Three or four did (reports vary), just a bit below that H-braced seam. The incompressibility of the seawater in the anti-torpedo lower hulls transmitted the impact shock very effectively against the inner hull, where the force was concentrated on the uprights of the H-shaped supports, which were rammed into the next compartments inboard, including large-volume engineering spaces. Rapid flooding ensued. The *Shinano's* captain did not realize the extent of flooding and maintained high speed to get nearer shore. The internal damage, compounded by rapid water flow, caused the *Shinano* to capsize and sink in a few hours after the attack, early

on the morning of November 29. Her captain and 1,435 of her crew and yard personnel were lost; her escorts rescued 1,080 survivors.

Shinano was the largest carrier built in the War, and was the largest ship sunk by subs or any other forces in the War.

This part first appeared on 1/20/2020:

You know I love connections.

Actor DeForest Kelley would have been 100 years old on 1/20/2020. Although best known for portraying “Dr. McCoy” on the original series of *Star Trek* and the first few *Star Trek* movies, he had many supporting roles in both film and TV. The two most interesting pre-ST roles he had (IMHO) were a bit part in the movie, [Raintree County](#) (with Montgomery Clift and Elizabeth Taylor) and in the 1950’s TV series, [The Silent Service](#), produced by famed [WWII sub vet](#) Tommy Dykers. *Raintree County* was filmed in part in Danville, Kentucky, where I was born. My Mom hoped for a walk-on part, but was way too pregnant with me at the time. I’ve mentioned *The Silent Service* before, in part because so many of the people who appeared in it went on to much larger roles; one of the examples I previously cited was [Jerry Parris](#), who portrayed top US sub ace Dick O’Kane in three episodes before becoming Rob Petrie’s neighbor on *The Dick van Dyke Show* and directing many TV shows after that.

I wrote the passage above on the occasion of the 75th anniversary of the sinking of the largest aircraft carrier of the War, the *IJN Shinano*, by torpedoes fired by Joseph Enright, captain of the *USS Archerfish*. This was the largest ship sunk by a sub in history, and was, of course, the focus of an episode of *The Silent Service*. Care to guess who played skipper Enright?

Yup, [DeForest Kelley](#)! [See: <https://www.youtube.com/watch?v=euLP2h-8AVk>]

But wait, there’s more....

The *Archerfish* episode was not the only one DeForest Kelley appeared in. He also played [James Dempsey](#), the captain of the [USS Spearfish](#), the submarine that made the last call on the island of Corregidor before it fell. Earlier, Dempsey had commanded the [USS S-37](#), one of the very few S-boats to sink a Japanese warship (the destroyer [IJN Natsushio](#)). (The S-37 was eventually going to be used as a target after the War, but she broke her tow and sank. An attempt was made to raise her for scrap, but the wreck got away and still lies just off Imperial Beach south of San Diego, where it has been a [popular scuba dive](#).) Dempsey was able to depart Corregidor loaded heavily with evacuees, including a dozen nurses, feat turned both into an episode of *TSS* (see: <https://www.youtube.com/watch?v=yDsLiZa8C9s>) and into a Cary Grant movie, *Operation Petticoat* (with the pink paint part of the story lifted from another WWII sub).

Back in 1988, I had the pleasure of attending the annual convention of Submarine Veterans in Phoenix, the guest of the father of one of my grad school colleagues. It was there that I got to meet Jesse DeSilva and [Clayton Decker](#), survivors of the [USS Tang](#). DeSilva’s story was particularly interesting; he was stationed in the aft torpedo room and, if he’d been at his normal post, he’d have died instantly. However, his chief had put his team on a rotating break,

and DeSilva was in the galley drawing a cup of coffee when the *Tang's* torpedo hit. I had a wonderful visit with them! And it was all due to the father of my friend, who had served aboard two wartime subs. One was the *USS Spot*, where he was Chief of the Boat. Care to guess which sub he served on before the *Spot*?

Yup, the *Spearfish*, and he was on the mission to Corregidor!

It is difficult to imagine that the *Silent Service* episode with [Edward Platt](#) (Chief of CONTROL, and, Didja Know, a professional singer) and [Joe Flynn](#) (*McHale's Navy* Captain Binghamton) would be a serious production! But it was: <https://www.youtube.com/watch?v=VfFv8whpJZQ>.

Other notable *TSS* bit players include Bob Denver, Leonard Nimoy (thrice), and Stanley Adams (*Star Trek's* Cyrano Jones; twice; he was also the villain in the [worst episode](#) of *Lost in Space...*).

One more. Perhaps you are familiar with the writings of [Edward L. Beach](#) (e.g. *Run Silent, Run Deep*, which had two sequels and was made into a [movie](#), and many books about naval history). He had an amazing career, and served with distinction in several WWII submarines, including the *USS Tirante*. Care to guess who played him *The Silent Service*? Our favorite *Gilligan's Island* castaway professor, Roy Hinkley, aka Russell Johnson! [BTW: Johnson flew 44 combat missions as a B-25 navigator in the PTO, and was shot down and injured in the Philippines on March 4, 1945. He was a close friend of Audie Murphy, too. That kinda puts that whole nerdy professor thing in a new light, doesn't it? Geez. The Professor flew bombing missions in the Philippines, Oliver Wendell Douglass rescued wounded Marines at Tarawa, and Uncle Fester flew gliders full of troops into isolated parts of Burma...]

Yes, indeed, I do love connections!

P.S. Bob Newhart spoofed *The Silent Service* in 1960 with his piece, "The Cruise of the *USS Codfish*," on *The Button-Down Mind of Bob Newhart*, his debut comedy album. Sixty years ago! Hang in there, Professor Proton!

Last Edited on 05 July 2020