



# SAN DIEGO SHIP MODELERS GUILD

Ship's Name: **USS McDERMUT (DD 677)**

Model Builder: CDR Frank G. Dengler, USN (Ret)

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## 1. Ship's History

a. Type/Class: Destroyer / FLETCHER (DD 445)

b. Namesake: LCDR David A. Mc Dermut, USN, Commanding Officer, USS CAYUGA, until killed reconnoitering Confederate forces near Sabine Pass, TX 18 Apr 1863.

c. Shipbuilder and Location: Federal Shipbuilding and Dry Dock, Kearny, NJ

d. Date Commissioned/In-Service: 19 Nov 1943.

e. Characteristics: Displacement 2,924 tons full load, Length: 376' 5", Beam: 39' 7", Max Draft: 13' 9", Search RADARs: SC air, and SG surface. Gun Battery: 5 x Mk 30 5"/38 single mounts controlled by 1 x Mark 37 Gunfire Control System (GFCS) with a Mk 4 FD radar, 10 x Mk 1 40mm/60 twin Bofors mounts controlled by 5 x Mk 51 GFCS, 7 x Mk 4 20mm/70 Oerlikon single mounts. Torpedo Battery: 10 x 21" torpedo tubes in 2 quintuple Mk 14 (forward) and Mk 15 (aft) mounts controlled by 2 x Mk 27 Torpedo Directors, Anti-Submarine Battery: 2 x Mk 3 depth charge rails, 6 x Mk 6 depth charge throwers controlled by a QC SONAR. Machinery: 60,000 SHP; 4 x Babcock and Wilcox 600 psi, 850° superheated steam, oil fired boilers, General Electric Geared Turbines, 2 screws, Speed, 38 kts (44 mph), Range: 6,500 nm at 15 kts, Boats: 2 x 22-person 26' motor whaleboats, 6 x 25-man life rafts, total capacity 194 men, Crew: ≈275 to 330.



**Figure 1 - Port quarter aerial view of McDERMUT**

*This was likely taken before commissioning since there's no ensign visible on the gaff aft of the after stack (see Figure 2) and 40mm Mount 45 has not been installed. The effects of depth charges rolled from two outboard racks on the fantail were supplemented by depth charge hurled from six launchers, three per side, aft of the main deck life rafts that expanded the "kill zone" laterally. See [https://www.navweaps.com/Weapons/WAMUS\\_ASW.php](https://www.navweaps.com/Weapons/WAMUS_ASW.php) for details. Photo source: U. S. Navy Bureau of Ships (B. S.) Photo # 55554*



Figure 2 -

**Starboard quarter aerial view of McDERMUT 23 Jan 44**

Source: [http://www.shipmodels.info/mws\\_forum/viewtopic.php?f=49&t=8105&start=1940](http://www.shipmodels.info/mws_forum/viewtopic.php?f=49&t=8105&start=1940)

f. **Operations:** During World War II, on 20 Mar 44 McDERMUT joined Carrier Task Force (CTF) 58 providing anti-submarine warfare (ASW) & anti-aircraft warfare (AAW) support for strikes on Palau, Yap, Ulithi, & Woleai. From Jun to Sep 44, McDERMUT provided naval gunfire support (NGFS) for landings on Saipan, Guam, Tinian, & the Palaus. McDERMUT then provided ASW & AAW support for the occupation of Ulithi Atoll.

During the Battle of Leyte Gulf, Force C, under Vice Admiral Shoji Nishimura, IJN, consisting 4 destroyers followed by 2 battleships, and a heavy cruiser, headed north through Surigao Strait between Leyte and Dinagat Islands early on 25 Oct 44 to strike U. S. forces landing on Leyte's east coast. Destroyer Squadron (DESRON) 54, under CAPT Jesse B. Coward, USN, headed south to intercept Force C. On the east side of the strait DESRON 54 flagship USS REMEY (DD 688), followed by USS MCGOWAN (DD 678), and USS MELVIN (DD 680) launched torpedoes around 0300 in a southwesterly direction toward the Japanese. MELVIN's torpedoes hit and sank the battleship FUSO (Classical name of Japan). On the west side of the strait, McDERMUT, followed by USS MOSSSEN (DD 798), launched torpedoes in an easterly direction about 0310. McDERMUT's torpedoes hit the ASASHIO-Class destroyers, see Figure 3, ASAGUMO (Morning Cloud) blowing its bow off, MICHISHIO (Full Tide), leaving it slowly sinking, and YAMAGUMO (Mountain Cloud), blowing it up. MONSSEN's torpedoes struck the battleship YAMASHIRO (Behind the Mountains), slowing it and disabling 2 of its 6 twin 356mm (14") turrets. Wrecks of battleship YAMASHIRO and cruiser MOGAMI (River), sunk by other U. S. warships, FUSO and the 3 destroyers torpedoed by McDERMUT, were located by Microsoft founder Paul Allen's research vessel PETREL between 2017 and 2019.



**Figure 3 - ASASHIO-Class Destroyer like the three sunk by McDERMUT**

Source: <https://forum.worldofwarships.com/topic/119180-color-pics-of-the-shiratsuyu-and-asashio-class-and-shimakaze-image-heavy/>

Although the Battle of Surigao Strait has been deemed important as the last battleship “crossing the T” action (the latter meaning bringing both fore and aft turrets of the crossing force to bear on the approaching force that who can only engage with its forward turrets), the three DESRON 54 destroyers, illuminated by search lights and star shells and under fire, inflicted very serious damage on battleships and destroyers with significant torpedo and gunfire advantages<sup>(1)</sup> before the U. S. “battle line,”<sup>(2)</sup> stationed farther north, could engage the damaged YAMASHIRO, MOGAMI, and the destroyer SHIGURE (Drizzle). SHIGURE, the only Japanese warship to survive the Battle of Surigao Strait, once flagship of CAPT Tameichi Hara’s, IJN, Destroyer Division 27, was sunk by the submarine USS BLACKFIN (SS 322) 24 Jan 45 in the Gulf of Siam.

On 15 Nov 44, McDERMUT began providing ASW & AAW support for strikes on Mindoro. Then, after rejoining CTF 58 3 Apr 45, McDERMUT supported strikes on Okinawa, Ryukyu Islands, Kyūshū, Honshū, Hokkaidō, & the Kuriles. According to page 3 of “Our Ship’s Diary as Told by the Crew: USS SAMUEL N. MOORE (DD-747)” by Bob Culver (<https://www.amazon.com/Our-Ships-Diary-Told-Crew/dp/0595337627>), “On April 16<sup>th</sup>, 1945 the destroyer USS McDERMUT (DD 677) was damaged by two 5” hits and a 20 mm fusillade from...USS MISSOURI (BB 63).” McDERMUT suffered 2 killed in action (KIA) and 33 wounded in action (WIA). Figure 4 shows the men WIA being transferred to USS WISCONSIN (BB 64) for medical care. After World War II, and Japanese occupation duty, McDERMUT decommissioned 15 Jan 47 and was “mothballed” (40mm gun mounts covered with protective hemispheric domes) in San Diego, CA.

After 75,000 Democratic People’s Republic of (North) Korea soldiers came across the 38th parallel to invade the Republic of (South) Korea on 25 Jun 50, McDERMUT was restored to its World War II configuration, repainted in 5H Haze Gray and 20B Deck Blue with large shaded hull numbers as depicted in the photo at <http://www.navsource.org/archives/05/pix2/0567735.jpg>, and recommissioned 29 Dec 50 in Long Beach, CA. The ship began NGFS, ASW, & AAW support for CTF 77 13 Jun 51. From 21 Sep through 4 Oct 51 McDERMUT conducted NGFS around the port city of Wonsan, protected by multiple coastal artillery batteries, rejoining TF 77 3 Nov, before returning to San Diego 7 Dec 51. It’s likely that during the ensuing inter-deployment period, McDERMUT’s 20mm and 40mm guns were replaced by three Mark 33 twin 3”/50 rapid-fire gun mounts and optically controlled Mark 51 gun directors were replaced by a radar-controlled Mark 56 GFCS to be more effective against jet aircraft. See <http://www.navsource.org/archives/05/pix2/0567736.jpg> for a photo of the ship in this configuration. The ship was back off Korea by 12 Aug 52 for NGFS near Wonsan. McDERMUT was hit by coastal battery fire 27 Aug 52, but did not suffer casualties. An armistice was signed 27 Jul 53 ceasing hostilities between the Democratic People’s Republic of (North) Korea and United Nations forces. McDERMUT began annual deployments to the Western Pacific from San Diego, CA. In 1954-55 McDERMUT helped defend the Tachen Islands against Chinese aggression. McDERMUT appeared in the 1963 movie “A Ticklish Affair” with Gig Young, Shirley Jones, and Red Buttons, filmed in San Diego.

g. Fate: According to Neptune Paper No. 3: Naval Accidents 1945 - 1988 by William Arkin and Joshua Handler, on 10 Sep 63, McDERMUT ran into USS GREGORY (DD 802) during night ASW exercises off California (<https://uploads.fas.org/2014/05/NavalAccidents1945-1988.pdf>). Both ships were obsolescent so McDERMUT was decommissioned 16 Dec 63, and GREGORY was renamed INDOCTRINATOR and used for pier-side training at Naval Station, San Diego from May 66 until Jan 71. GREGORY was intentionally grounded Mar 71 for use as a target off San Clemente Island.

McDERMUT was sold to National Steel, Terminal Island, CA for scrap 4 Jan 66. National Steel employee, Ivan Roy Coats, a 1934-37 USS HOUSTON (CA 30) crewman and my friend from 1962 until his death in 2011, donated McDERMUT’s nameboard to the Los Angeles Maritime Museum, San Pedro, CA where it remains in the Conference Room.

h. Awards: Combat Action Ribbon (retroactive from 1969 award origination), Navy Expeditionary Medal, American Campaign Medal, Asiatic-Pacific Campaign Medal w/ 10 Battle Stars, World War II Victory Medal, Philippine Liberation Medal, Navy Occupation Medal, National Defense Service Medal, Korean Service Medal w/ 5 Battle Stars, United Nations service Medal

i. Connections: CDR Frank G. Dengler, USN (Retired), who built this 1:192 scale model of McDERMUT as in 1944, saw Surigao Strait veteran MONSSEN aground at Beach Haven, NJ in 1962 after it parted tow between Reserve Fleet contingents in Boston, MA and Philadelphia, PA. As an Ensign, he began training GREGORY in San Diego to become Gunnery Officer, USS HOPEWELL (DD 681) in January 1968. ENS Dengler was diverted to become Gunnery Officer, USS BRINKLEY BASS (DD 887) when he graduated 1<sup>st</sup> in his class because BRINKLEY BASS was about to deploy from Long Beach, CA to the Gulf of Tonkin off Vietnam and needed to pass NGFS, AAW, and attack craft defense exercises before departure.



**Figure 4 - USS McDERMUT 18 June 1944**

*In this photo McDERMUT is transferring men inadvertently wounded by gunfire from USS MISSOURI (BB 63) to USS WISCONSIN (BB 64) for medical care. Expanding the photo shows the “Can Do” motto for destroyers known as “Tin Cans” for their lack of armor, the 3 hashmarks under a Japanese naval ensign for the destroyers McDERMUT sank, and 4 hashmarks under a Japanese flag for McDERMUT’s NGFS service on the ship’s starboard bridge wing. These markings are evident on the model. Source: National Archives & Records Administration (NARA) 80-G-49650*

**Notes:**

<sup>(1)</sup> Armament Comparison

Gun batteries:

FUSO Class 6 x 355.6mm/14” range 35,540 yds,

MOGAMI Class 10 x 203mm/8” range 31,714 yds,

ASASHIO Class: 6 x 5”/50 guns, range 20,100 yds,

FLETCHER Class: 5 x 5”/38 guns, range 18,200 yds

Torpedo batteries:

ASASHIO Class: 8 x 24 in torpedo tubes for Mk 93 “Long Lance” torpedoes with 1,080 lb, warheads, range 22,000 mtrs

(≈24,060 yds) at ≈50 kts or 40,400 mtrs (≈44,182 yds) at ≈35 kts.

FLETCHER Class: 10 x 21” torpedo tubes for Mark 15 torpedoes with 825 lb warheads, range 6,000 yds at 45 kts or 15,000 yds at 26.5 kts.

<sup>(2)</sup> U. S. Naval Forces in Surigao Strait North of DESRON 54

Western flank under RADM Jesse B. Oldendorf, USN, of Riverside, CA, Commander Task Group (CTG) 77.2, and therefore commander of all U. S. forces in Surigao Strait, including cruisers LOUISVILLE. CTG 77.2 flagship, PORTLAND, MINNEAPOLIS, DENVER, COLUMBIA, with destroyers NEWCOMB, RICHARD P. LEARY, ALBERT W. GRANT, ROBINSON, HALFORD, BRYANT, HEYWOOD L. EDWARDS, BENNION, and LEUTZE. Battle Line under RADM George L. Weyler, USN, including battleships WEST VIRGINIA, MARYLAND, MISSISSIPPI, TENNESSEE, CALIFORNIA, & PENNSYLVANIA, with destroyers SIGOURNEY, CLAXTON, AULICK, CONY, THORN, and WELLES. Eastern flank under RADM Russell S. Berkey, USN, including cruisers HMAS SHROPSHIRE, PHOENIX, BOISE, & destroyers HUTCHINS, BACHE, BEALE, DALY, KILLEN, & HMAS ARUNTA.

2. **Model** - After completing a shadow-box containing a 1:305 scale 1954 Revell USS THE SULLIVANS (DD 537) kit modified to resemble McDERMUT, a chart of the Battle of Surigao Strait, and related items, I wanted to build a larger version of the ship.

a. **Materials:** The basswood hull is from the Bluejacket Shipcrafters Inc. USS KIDD (DD 661) kit (<http://www.bluejacketinc.com/kits/fletcherclass.htm>). Other parts include plastic rod, stripe, and sheet, brass sheet & cast fittings, cast resin gun mounts & gun director, cast white metal (lead & lithium) fittings, wire, thread, and paper.

b. **Scale:** 1:192

c. **Era and Configuration Depicted:** 1944

d. **Model Construction Period:** ≈12 months

f. **Issues and Solutions:**

(1) **Navy Measure 21 Paint:** McDERMUT was initially painted in Measure 21 camouflage with 5-N Navy Blue overall and 20-B Deck Blue on most horizontal surfaces. Due to shortages of blue pigment, the Bureau of Ships began using grayer paint, i. e. 5-NB Navy “Blue” & Deck Gray, toward the end of World War II. When it was discovered that ships painted in multi-colored Measure 32 “dazzle” camouflage from fall 1943 to summer 1944 were more likely to be targeted by aircraft since at least one of the “dazzle” paints stood out from background colors, ships were repainted Measure 21 or painted Measure 22 with 5-N Blue up to the lowest point in the main deck sheer and 5-H Haze Gray above, like McDERMUT in Figure 5. World War II era paint was subject to fairly rapid fading due to ultraviolet sunlight, salt water, & temperature changes.



**Figure 5 - USS McDERMUT in Measure 22 camouflage 4 Aug 45 alongside USS YORKTOWN (CV 10)**

*This NARA 80-G-376428 is how Frank Dengler's 1:305 model appeared, but without the DESRON 54 logo added to the forward stack later in 1945 as depicted in the photo at <http://www.navsource.org/archives/05/pix2/0567738.jpg>.*

These and other factors like time of day, overcast, or camera azimuth relative to the sun can make photo images deceptive. However, the photo of McDERMUT from navsource.org (<http://www.navsource.org/archives/05/pix1/0567705.jpg>), in Figure 6, suggests a weathered, grayer 5-N. The paint chip, collected from the barrel of a 5"/51 Gun Mount during repainting at the former Naval Training Center (NTC), now Liberty Station Park, Figure 7, may have both the original “bluer” 5-N in the lower right and the “grayer” late war 5-NB in the upper left. Note Figures 7 and 8 depict 5-N similarly. After unsuccessful attempts to mix paint to match colors, I took samples of 5-N Navy Blue, Figure 8, and 20-B Deck Blue, Figure 9, purchased from Snyder & Short ([https://www.shipcamouflage.com/warship\\_camouflage.htm](https://www.shipcamouflage.com/warship_camouflage.htm)) to Ace Hardware where they were scanned and color matched by machine. The results can be seen in photos of the model. Unfortunately, while Navy Blue and Deck Blue may have blended into the environment and made ships less distinguishable by Japanese air and naval forces, particularly from dusk to dawn, they offer little distinction between shipboard vertical and horizontal structures so the model does not seem as detailed as it might with contrasting paint colors.

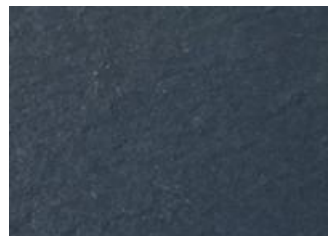


**Figure 6**  
**McDERMUT April 1945**

<http://www.navsource.org/archives/05/pix1/0567705.jpg>



**Figure 7**  
**5"/51 Gun Mount Paint Chip**



**Figure 8**  
**Snyder & Short 5-N Navy Blue**  
(from purchased Snyder & Short color card)



**Figure 9**  
**Snyder & Short 20-B Deck Blue**  
(from purchased Snyder & Short color card)

(2) Ordnance: Although solid objects, like 5"/38 gun mounts, can be and were replicated by creating a prototype, covering it with 2-part AeroMarine 125 Silicone Room Temperature Vulcanizing (RTV) Rubber, and filling the resulting mold with 2-part AeroMarine White Casting Resin, complex parts with apertures that prevent cast part extraction cannot. Since my objective is to make historically accurate models that remind people of crews who defended, "the Constitution of the United States of America against all enemies foreign and domestic" and I'm well aware of my life expectancy at 76 years of age, time limitations, I opted to act as a "General Contractor" and opted to buy computer printed parts from Shapeways.com rather than make multiple copies of items like those depicted in Figures 10 to 13. To help expedite searches of the Shapeways.com website, all titles of parts by Sasa Drobac, diStefan 3Dprint, in the figures are preceded by their scale, "1/192." Sasa is an excellent craftsman with a large inventory. He has developed new products at my request including 4-bladed props for 1:192 ALLEN M. SUMNER (DD 692) and GEARING (DD 710) Class ships.



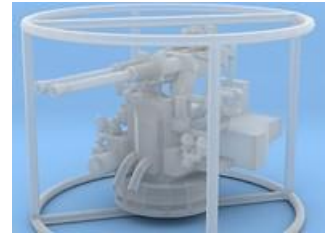
**Figure 10**  
USN Quintuple Torpedo Mount v2



**Figure 11**  
USN 20mm Oerlikon Single



**Figure 12**  
DC Loader Rack Set

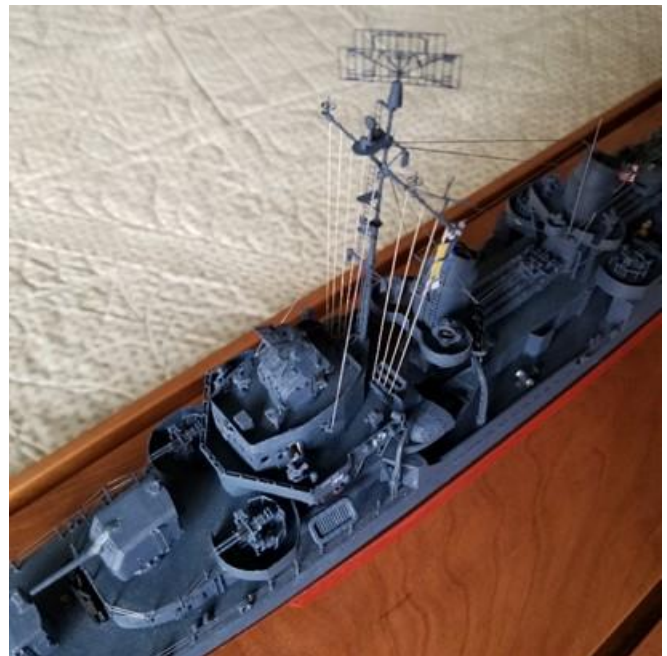


**Figure 13**  
USN 40mm Bofors Twin Mount



**Figure 14 - McDERMUT 2 Jun 21**

*This photo shows wood, plastic, & brass parts up to the 01-level. The model sits atop my 19" by 47" work table straddling four 10" by 16" metal cabinets with 6 drawers 4" deep for paint, materials, & tools. The 3/16" pressed wood board is a temporary mounting.*



**Figure 15 - McDERMUT Mount 52 to After Stack 5 Jun 22**

*Note the ship's flag hoist call sign, November, Delta, Delta, Victor. All U. S. Navy call signs begin with November. The Delta, Delta which could represent "destroyer" and the Victor "victory." Per navsource.org, McDERMUT's radio call sign was "Gate Keeper."*



**Figure 16 - McDERMUT Prior to Painting**

*This photo shows the bridge, stacks, Mount 45 structure, & 5"/38 gun houses laid in place, not necessarily in or aligned to their ultimate locations.*



**Figure 17 - Port Bow Elevated View of the McDERMUT 1:192 Model**

*The birch wood base is grooved for a 5-sided 1/4" thick glass case by University Glass, 5255 University Ave, San Diego, 619-280-3688. The label & historical summary plate is by Chung's Plaque Shop & Custom Framing, 32<sup>nd</sup> Street Navy Exchange, San Diego 619-235-8075. The bridge wing "Can Do" and Japanese ensign and flag are per the Figure 4 caption. SC air search & Mark 4 fire control radars are accurate, the latter using scratch building parts & techniques. Note the contrast between 5N Navy Blue vertical surfaces and 20B Deck Blue horizontal surfaces. The photo was taken before deck tread was added as shown in Figure 20.*



**Figure 18 - Elevated Beam View of the McDERMUT 1:192 Model**

*The Bluejacket Shipcrafters model of USS KIDD (DD 661) shows the late World War II FLETCHER Class configuration in which the forward quintuple torpedo tube mount and twin 40mm gun mounts outboard of the after stack were replaced by port and starboard quad 40mm gun mounts and the Mark 51 gun directors were shifted from an after stack platform to a new deckhouse just aft of the forward stack. Frank Dengler has not located records indicating ships completed reconfiguration with two quad 40mm gun mounts in time to participate in combat during World War II.*



**Figure 19 - Port Quarter Elevated View of the McDERMUT 1:192 Model**

*The tan items bulkhead mounted below the aft quintuple torpedo tube mount are a mooring line reel and woven line fenders used to absorb the impacted of other ships or piers. There are more such items around the deck houses. The white and red item on the port quarter of the aft deckhouse is a fire hose saddle rack with a hinged red bar to contain the "faked" hose loops. The "rigging" is either fiber line flag halyards or cable mast stays, radio antennas, and lifelines. The after main deck hatch is open disclosing white interior paint used in crew berthing spaces.*





**Figure 20 – Final Version of McDERMUT 1:192 Model with Deck Tread**

*Review of photographs showed vague impressions of the black paint and course sand deck tread mixture paths around the main deck to mitigate loss of crew member footing in heavy weather or boarding seas. Deck tread was also added to the 1:192 model of USS STODDARD (DD 566). McDERMUT sits on what was a USS JOHN S. McCain (DD 928 / DL-3 / DDG 36) accommodation ladder platform bought from National Steel & Metals, Terminal Island, CA and since converted into a dining room table.*