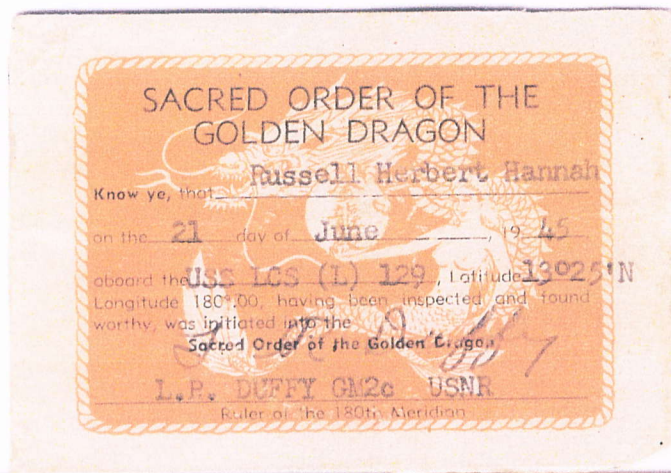
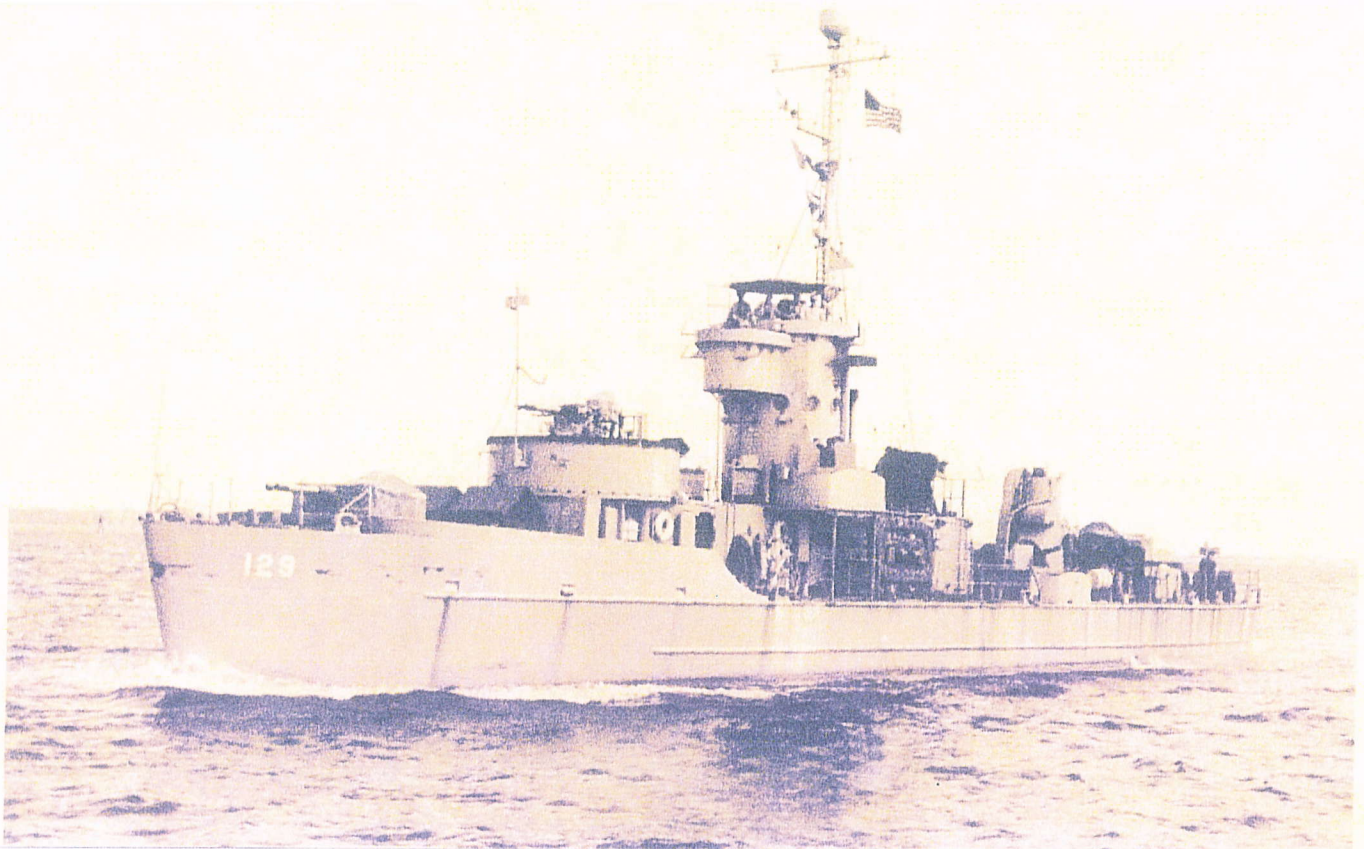


# San Diego



**Russell H Hannah second from left in this picture of some of the crew of the LCS (L) 129 in 1945.**





## Twin 40mm (BOFORS) Gun 40mm L/56 Multipurpose Artillery

### Statistics

**Year of Construction:** 1942

**Bore:** 40mm

**Weight of gun:** 522kg / 1150lbs

**Weight of barrel:** 91.6kg/ 202 lbs

**Length of gun:** 3,779.5mm/ 148.8 ins.

**Length of bore:** 2,250mm/ 88.853 ins. (56 calibers)

**Wt. of projectile:** 0.9kg / 1.985 lbs

**Max. Range (Anti-Ship):** 10.1km / 11,000 yds at 42° elevation

**Max. Effective Range:** 2.7km /3,000 yds

**Ceiling (Anti-Air):** 6.950 km/ 22,800 ft./ 7,600 yds at 90° elevation

**Max. Elevation:** 90°

**Rate of Fire:** 120 - 160 rounds/min/barrel; governed by the speed of loading 4 round clips.

**Crew:** Twin - 7; Pointer, Trainer, Gun Captain, 4 Loaders (2/Barrel)





# 4.5-Inch BBR

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## 4.5-Inch BBR *Old Faithful*

The purpose of the **4.5-Inch BBR** (Beach Barrage Rocket), nicknamed *Old Faithful*, was to provide naval landing craft a means to attack coastal positions in the time between naval gunfire and aerial bombardment, and the time when the troops actually landed on the beach. The rocket was developed by a CalTech (California Institute of Technology) team for the Navy within a short time in summer 1942. A 2.25-inch MK 3 rocket motor of the [Mousetrap](#) anti-submarine rocket was fitted with a standard 9 kg (20 lb) general purpose bomb. The resulting rocket first flew on 24 June 1942, and the first combat use of the *Old Faithful* occurred in November 1942 during the North Africa campaign.

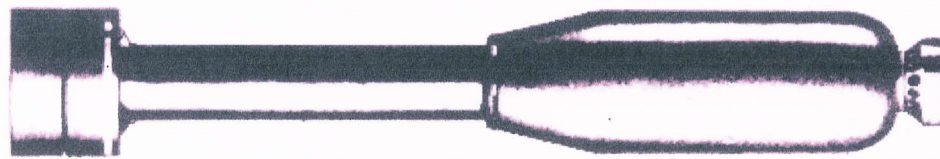


Photo: via [ORDATA Website](#)

4.5-Inch BBR *Old Faithful*

The 4.5-Inch BBR consisted of a 2.25" solid-propellant rocket motor, a 4.5" warhead with 3 kg (6.5 lb) of high explosive, a nose-mounted impact fuze, and a circular fin assembly for stabilization. With a burnout speed of only 390 km/h (242 mph) the rocket was relatively slow, and therefore had a rather large dispersion. Nevertheless, it was extensively used as a ship-to-shore bombardment rocket, and a total of about 1.6 million rounds were produced. On some occasions, *Old Faithful* was even employed as a ship-to-ship or land-based ground-to-ground rocket. There was also a slightly longer variant of the rocket, which used a MK 9 motor. In the final phase of the war, the 4.5" BBR was gradually replaced in the beach bombardment role by the more accurate and powerful spin-stabilized [5-Inch HVSR](#) rockets.