

The Royal Australian Navy in 15 Objects

Object 11

Two mines from the Vietnam War.



Mines were a major threat to warships and merchant ships in the Vietnam War. Object 11 is actually two different sorts of mines. The first is 'Birdcage' or Riverine Pressure Mine (actuator). It is an excellent artefact to best tell the story of the Royal Australian Navy's (RAN) Clearance Diving Team 3 (CDT-3) Operations in Vietnam. The mine is about 48 cm tall and 12cm wide at the bottom cylindrical actuator housing. At the top is a metal wire enclosure resembling a Birdcage, hence the mine's name. Within the cage is an inflated bladder and both bladder and cage are connected to the Upper Chamber which houses the internal firing mechanism. The lower chamber is designed to receive pressurised air from the Upper Chamber via two one-way blower valves which causes the mine to detonate, it also contains a battery which is the actuator's power source.

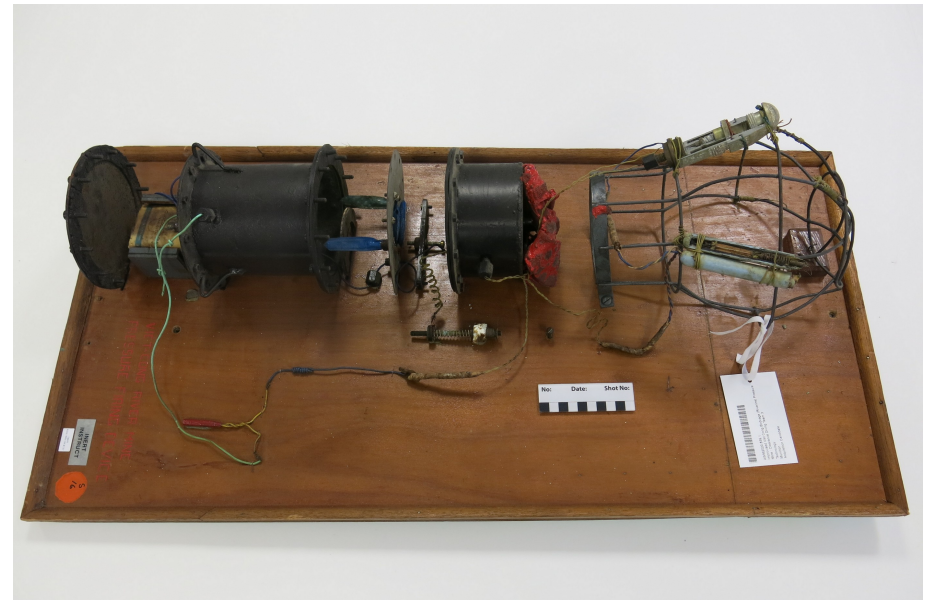
When a watercraft moves forward it produces a forward and downward bow-wave pressure. This pressure acts upon the inflated main bladder of the mine, forcing air from that bladder into the lower chamber's second bladder via the blunter valves. As the boat passes over the mine and the bow-wave pressure diminishes, the pressure in the upper (top) chamber subsequently drops but is unable to return to its original pressure due to the one-way blunter valves. With more air now in the lower bladder, that bladder subsequently expands causing the diaphragm to close an electrical circuit providing the current to detonate the mine. The main charge of the Birdcage mine is attached externally to the bottom of the mine via the padeyes; it could consist of captured military ordnance, demolition blocks, satchel bags of explosives or similar, suitable for use in water.

This type of mine is particularly relevant to those Australian Clearance Divers (CDT-3) who were attached to United States Explosive Ordnance Disposal (US EOD) and South Vietnamese EOD units in the shallow waters of the Cua Viet Region of I Corps, near the demilitarised zone (DMZ). The use of Birdcage Mines by the VC in this area constrained the use of the rivers for allied purposes.

The second mine was the Russian BMP-2 limpet mine consists of an aluminium circular hemisphere case with a carrying handle. There are two brackets for time delayed fuzes at one end while at the other end is the bracket for the anti-removal fuze. On the bottom on the mine is a circular steel shipping plate with 44 magnets used to attach the mine to the target hull. The complete assembly weights 6.6 kg. The main charge consists of 3 kg of cast tritonal covered on top and bottom by a 25 mm layer of TNT pellets. The mine contains two delay firing fuzes and an anti-removal fuze. It is painted green. The case measures 25.4 cm in diameter and 11.4 cm high.

RAN Clearance Diving Team 3 consisted of 49 men in eight deployments between Feb 1967 and May 1971. Vietnam was the first conflict in which the RAN deployed a Clearance Diving team in war.

On 23 May 1969 when Chief Petty Officer Rashleigh, Able Seaman Garrett and Ey were called out at 0130 after a report that enemy swimmers had penetrated the port area. The Viet Cong were attempting to mine the De Long Wharf and the ships alongside; one of which was MV *Heradia*, an 8000 Ton loaded ammunition ship.



On CDT3 arrival at the wharf a swimmer had already been captured but reporting suggested another remained at large. Furthermore, they were advised that what appeared to be an explosive charge was suspended between the wharf and MV *Heradia*. Despite the presence of another enemy swimmer Garrett entered the water to investigate the suspected mine. He found the object, a metal box about twice the size of a shoe box, hanging by a wire attached to the wharf. On exiting the water to report what he had found Garrett and the team heard a small 'low-order' explosion. Garrett returned to the water to find that the home made mine had been blown open by a partial detonation of the 'booster charge' for the main explosive which had failed to detonate. On removal from the water it was estimated the mine held another 60lb of explosive which could have had a devastating effect on the ammunition ship *Heraida*.

In a further underwater search of the area Able Seaman Ey identified a Russian BMP-2 limpet mine attached to the wharf. This was removed and found to be unarmed, probably as the enemy swimmers had been detected at an early stage of their attack. This was a new mine and the first of its type to be found during the Vietnam War. The second enemy swimmer was eventually captured and revealed that a further Russian limpet mine was laid. This was unable to be found by the divers until four days later when it was washed ashore some five miles away; it too had not been armed.

Location: The Australian War Memorial.

