



海巡艦艇介紹專欄六一

Feature report VI - Coast Guard Patrol Boats

巡護利器

100 噸級巡防艇

The 100-ton
Patrol Boat

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民國 82 年底，為因應海上任務「遠大近小」的巡防艇配置需要，當時保安第 7 總隊（本署海洋巡防總局前身）特別規劃及編列預算建造 30.5 公尺長船速 30 節的 100 噸級高速巡防母艇，搭配船速 45 節的 30 噸級巡防子艇，採取聯合巡防勤務搭配作為，該型巡防艇由財團法人聯合設計中心所設計，並由中信造船股份有限公司得標，並於民國 80 年起陸續完工交船（前後計建造 12 艘），堅實的鋼鐵船身，其耐波性遠較一般玻璃纖維合成之巡防艇優良，因此該款巡防艇投入第一線海上不法查緝行列後，立刻發揮其優異表現，創造良好海上緝私的績效，所查獲的走私案件不計其數，績效卓著。

第一代中信建造之百噸級巡防艇為鋼鐵材質艇殼，鋁合金上層結構，艇身長 30.5 公尺，模寬 6.8 公尺，模深 3.55 公尺，吃水 1.7 公尺，滿載排水量 140 噸，淨重 103 噸，載重 30 噸；兩部德國 MTU（16V396TB94）型柴油引擎，每部出力 3100 馬力，雙軸推進器五葉螺槳，最高航行速率達 30 節，經濟

In late 1993 responding to the need of patrol vessel deployment supporting a maritime mission plan, smaller boats for near coast and larger and heavier tonnage ships for distant waters, the Security Police Seventh Division, Police Administration (former of modernized maritime organization of Maritime Patrol Directorate General, Coast Guard Administration), has specially developed and allocated budgets for building a 30.5m, 30-knot, 100-ton high-speed patrol boat, coordinated with a 45-knot, 30-ton auxiliary patrol boat, for coordination in joint patrol and defense duties. The 100-ton patrol boat is designed by nonprofit Syndicated Design Center, and the bid is awarded to Chinatrust Shipbuilding Company, Limited, with total of 12 boats built and delivered starting in 1991. Featuring a sturdy steel hull, the frigate stands as an excellent patrol boat for its superior wave buoyancy, and has performed remarkably well soon upon joining the frontline of maritime crackdown operation, creating impressive illicit trafficking crackdown yield, solving innumerable anti-trafficking cases



圖說 Photo. 1 :

100 噸級巡防艇英姿(二)。

A dashing snapshot of the 100-ton frigate



巡 護 利 器

航速 28 節，續航航程達 1000 浬，乘員 12 人。本型巡防艇取得中國驗船中心（CR），出勤時可在艙艙各裝一挺 T-75 機槍，船上並有先進全球衛星定位系統、自動雷達等航海儀器，可同時追蹤八個衛星，顯示並輸出船位、船速信號，配合海洋巡防總局衛星控管系統，為本署 12 至 24 浬責任海域內的巡弋主力。

由於其優異之巡防表現，本署海洋巡防總局於民國 88 年再由龍德造船公司建造 2 艘編號「PP10017」及「PP10018」巡防艇，其性能與前述要求相去不遠，不過，較特殊的海豚造型駕駛艙，明顯與前款造型有別，為因

with impressive results.

The 100-ton first-generation frigate built by Chinatrust features an all-steel hull and aluminum superstructure, and measures 30.5 meters in length, 6.8 meters in width, and a hull depth of 3.55 meters, with 1.7m draught, featuring a 140-ton discharge at full load, weighing 103 tons net, and a 30-ton payload; it is fitted with two German MTU (16V396TB94) diesel engines, with each at 3100HP, a dual shaft five-blade propeller, boasting a maximum navigation speed reaching 30 knots, or 28 knots in economy cruise, or a continuous navigation of 1000 nautical miles, and it seats 12. The frigate is equipped with innovative global satellite positioning system, automatic radar navigation instruments, and is capable of tracking 8 satellites at the same time and prompts the ship location and speed signals, which when coordinated with Maritime Patrol directorate General's satellite monitoring and control system, would make it one of the administration's main frigate forces responsible for patrolling the sea regions between



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圖說 Photo. 2 :

100 噸級巡防艇海上英姿。
A majestic view of the 100-ton frigate at sea

圖說 Photo. 3 :

100 噸級巡防艇。
The 100-ton frigate

應多元工作需求，行政院特別核准本署構建快速小型警艇計畫修正，將原計畫籌建之 7 艘 60 噸級巡防艇，調整改建為 100 噸級巡防艇 4 艘及 35 噸級巡防艇三艘，分別自 91 年起陸續交船，此款巡防艇除有優異船型設計（採用硬稜泌船型，艙部具適當的船舷外傾，並有擋浪條，以獲取良好的操縱性能與適航性），超水準焊工技藝（全艇焊道寬度保持標準值以下）情況之下，於不同載荷情況下，其完整穩度須符合美海軍艦艇設計規範 DDSO79 穩度基準，滿足單艙破損需求，操車性能優越、機動性良好（於 30 節高速航行時，進行滿舵迴旋，迴旋半徑小於 49 公尺）。配有消防泡沫桶強化海上消防能力及將其雷達搜索能力由 48 浬擴及至 72 浬，續

12 and 24 nautical miles.

Due to its outstanding patrol and defense performance, the Maritime Patrol directorate General of the Coast Guard administration has commissioned Lung Der Shipbuilding Company in 1999 to build two more frigates, which are named as PP10017 and PP10018, and offer comparable functions as described earlier. They also come with a unique dolphin steering cabin that sets them apart from their earlier counterparts. In response to diverse working demands, the Executive Yuan has specially approved an amendment to the Coast Guard Administration's small-scale high-speed police vessel building plan by upgrading from the previously proposed seven 60-ton frigates to four 100-ton frigates and three 35-ton frigates, which have been delivered at the beginning of 2002. The frigate model not only comes with an outstanding vessel configuration design, fashioned in a rigid, streamlined ship hull, with an optimal outward stern incline, together with wave propelling lines, to derive at excellent maneuverability and navigation dynamics. With exceptional welding workmanship, as seen in how the frigate-wide welding tracks are kept well below the standard criteria, the frigate fully meets the U.S. Navy vessel design guideline DDSO79 in



航力增加為2600浬外，為求提昇執勤人員效能，亦強化駕、住艙之防噪音能力，並配置機艙監視系統，使勤務人員有較佳執勤空間，被媒體譽為「賓士級海巡艇」，並於船艏配置一部硬底玻璃纖維合成材質(FRP)柱型發泡 CLOSE CELL 防舷式小艇（艇長4公尺、艇寬1.8公尺，採用四行程40匹馬力舷外機一部），足以承載四位艇員執行特殊任務之所需，可於海上執行任務期間，發揮搶救遇難落海人員功效。

（作者任職於第八【澎湖】海巡隊技士）

superb stability under varied payloads, and fully satisfies cabin infiltration resistance and an excellent maneuverability, boasting a fine mobility that requires a below 49m turnaround radius sailing at full throttle at a 30-knot high-speed cruise. Equipped with fire foam canister for stepped-up sea fire rescue capability and with a radar search radius extending from 48 nautical miles to 72 nautical miles, its continuous navigation capability has not only been increased to 2,600 nautical miles, but the steering and sleep cabins' noise proofing have been brought up in response to the duty personnel's comfort, together with equipment chamber surveillance system, allowing the duty personnel a more optimally appointed operating space, and one that has been proclaimed by the press as the Mercedes-grade frigate at sea. Also fitted to the ship bow is a rigid fiber reinforced plastic (FRT) cylindrical close cell disperse-proof small boat, measuring 4m in length, 1.8m in width, propelled by a four-increment 40HP bow-mount engine that suffices to carry four frigate members in unique duties for providing rescue mission.

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圖說 Photo. 4 :

二代 100 噸級巡防艇英姿(一)。
A majestic view of the second generation 100-ton frigate (I)