



三十五噸級巡防艇

The 35-ton Patrol Boat

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◀ 35 噸級巡防艇馳騁巡弋海上英姿
A dynamic snapshot of the 35-ton Patrol Boat on maritime patrol

為循序漸進的「汰舊更新」海軍所移撥之舊型三十五噸級巡防艇，有效建立「遠大近小、遠疏近密、遠慢近快」之縱深部署，提升海洋巡護能量，維護我國周邊海域及海岸秩序，本署所屬海洋巡防總局於八十九年度開發完成第一批新型三十五噸級巡防艇，並隨即量產十艘巡防艇加入第一線海域執法陣容。由於該型艇「吃水淺、船速快、耐航性佳、具人性化」，服勤以來，頗獲第一線同仁好評，該總局又於九十、九十一及九十二年度分別再建造四、三及十三艘同型艇，於本（九十三）年十月十五日全數交船後，預計該型巡防艇總數將達三十艘之多，也將成為本署近海巡弋主力船艇之一。

In search of gradually retiring the older model of the 35-ton Patrol Boat allocated by the Navy to instill a far-flung deployment of a wider coverage, close-knit network for quick response that would poise to enhance the Coast Guard Administration's coastal patrol capabilities and to protect Taiwan's territorial water and coastal order, the administration's head coast guard Bureau has since 2000 completed the development of the first batch of the new model 35-ton Patrol Boat and gone into mass production for ten cruisers that were ready to join the rank of frontline law enforcement. Noted for its shallow water draft, high speed, excellent sea keeping characteristics and accommodation design, And the Bureau has built the other four, three and thirteen Patrol Boats in 2001, 2002 and 2003 respectively.



過去，駐紮在小型漁港之海巡隊，多倚賴海軍所移撥之舊型三十五噸級巡防艇來執勤，由於年歲久遠，雖幾經海洋巡防總局實施延壽計畫及海巡同仁細心呵護愛心照料，然而，面對私梟海上運具性能的大幅提昇（如俗稱黑金剛、白金剛等快艇投入，速度動輒四、五十節以上），早已不敷現況需求，遂萌生汰舊更新的積極作為。歷經招商、研究及開發，於八十九年完成新型三十五噸級巡防艇開發，並經後續三次的造艇計畫實施，該型艇又不斷加強性能提昇，成為本署近海巡弋主力之一。本型艇取得中國驗船中心（CR）及挪威驗船協會（DNV）之雙重合格認證，船艇採玻璃纖維強化塑膠材質（FRP）製造，並在三明治夾層結構上採用真空樹脂注入成形製程（VARI），該製程能有效避免夾心材中的氣泡瑕疵，降低漏水與破損之風險。船型為深V型，採用二部柴油引擎主機帶動二部推進器及雙舵，屬於高速巡防艇，全長二十一米，船寬五米，模深二點五二五米，最深吃水一點五米左右，最大速率三十節，巡航速率二十五節，巡航距離四百浬，每艘乘員八人，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，實施立即性線上任務派遣，達成「精簡岸際、發展海域」目標，提升查緝不法走私和偷渡能力。

In the past, flotilla that posted at smaller fishing ports had relied on the navy's older 35-ton Patrol Boat for defense but as a result the General Maritime Patrol Agency's long-term planning and the careful consideration of administration personnel over the years to ameliorate insufficiencies in facing the smugglers who have high performance maritimetime vessels——(— 40 to 50 knots), purchasing, research and development have been completed for this new line of 35-ton Patrol Boat in a three-phase building process of every-increasing improvement, comprising the administration's greatest arsenal of firepower. The series of vessels has received certification from the China Corporation Register of Shipping (CR) and Det Norske Veritas,NV. The vessels are equipped with fiberglass reinforced plastic (FRP) and its three-layer sandwich hull is made with vacuum resin VARI construction process to prevent the introduction of bubbles in bonding, leakages and other damage. These high-speed vessels have a deep V-shape, two diesel engines with double propellers and two rudders, length over all,LOA 21 meters in length and breath 5 meters, with molded depth 2.525 meters. The Patrol Boat's max draft is 1.5 meters and has high top speeds of 30 knots, The portal boat has speeds of 25 knots with range of 400 nautical miles and has 8 complements. It is equipped with GPS and automatic radar, simultaneously tracking up to 8 satellites, picking up the output position of other vessels, their individualized frequencies to meet the needs of the administration's satellite-control system for deployment and meeting the goals to increase costal patrol efficiency and increase territorial control thus improving the administration's ability to investigate illegalities such as smuggling of goods and people.



因應人力精簡政策，本型艇在機艙、舵機艙及後甲板分設攝影監控系統，使人員在駕駛艙即能掌握全船第一手狀態，增進航行安全效能。另為提升乘組員執勤效能，本型艇雖已達防噪音標準，為求更良好之執勤環境，採用新型四葉之「新翼型 (New Section)」螺旋槳設計，減低高速艇的高速與斜軸所產生螺旋槳運轉環境為半空蝕的狀況影響，較一般螺旋槳具有較高之效率及較低之震動，使得船速提昇，震動及噪音進一步下降，有效維持海巡人員體能，達到人性化的造船設計。由於穩定舒適，有幸在本型艇服務的同仁都稱好，有效提升巡防艇執勤作為。（作者任職於海洋巡防總局第八【澎湖】海巡隊薦任技佐）

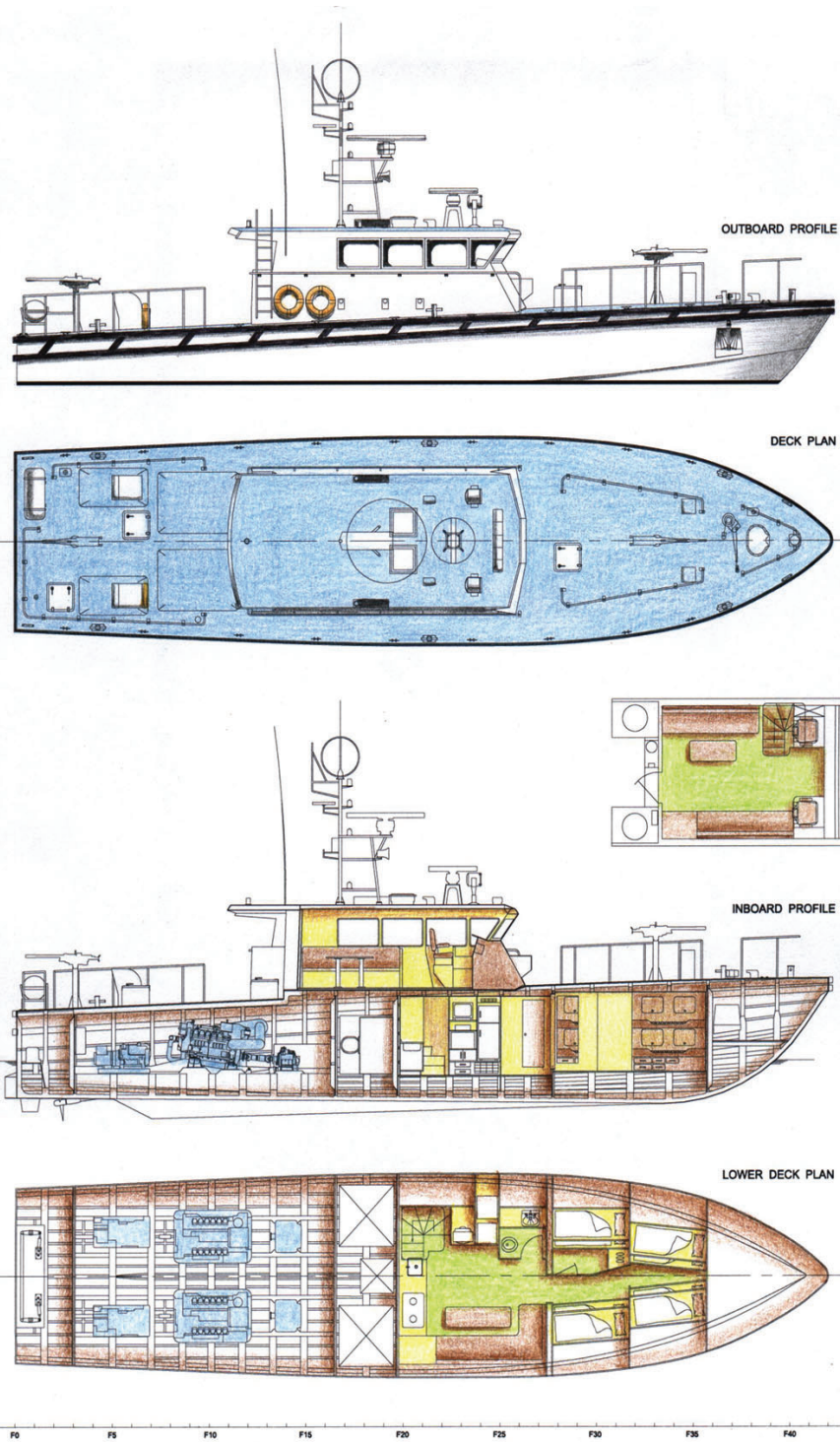
In response to the manpower downsizing policy, the security camera system of the Patrol Boat engine room, steering engine room and rear deck gives crewmembers on the bridge complete awareness thus increasing security. Though this type of boats counter noise levels are up to standard, for a better working environment, have set up four-blade New Section propeller to decrease half cavitation generated by high-speed rotation of the propeller and tilted shaft. This increased level of comfort improves working efficiency of patrol boat's crew.

(The author is of a assist specialist with the General Maritime Patrol's 8th Penghu Maritime Patrol Flotilla)





巡護利器



▲ 龍德公司原型船艇設計圖

The prototype design drawing by Lung Der Company