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## 海巡艦艇介紹專欄 8 500 噸級巡防艦

### Featured Introductory Column VIII-Coast Guard patrol vessels- the 500-ton Frigate



● 台北艦英姿(二)。  
A majestic view of the SS Taipei - II

我國係屬海洋島國，對外除了仰賴國防力量防禦疆土外，對於維護海域主權及治安能量之建立，更是不惶多讓，因此，為利於巡弋釣魚台、東沙及南沙等主權海域，本署海洋巡防總局響應「國艦國造」政策，於民國 88 年採用經海軍測試驗證良好之現役 500 噸「錦江級艦」設計，由聯合船舶設計中心配合本署任務需求進行改良而成，於同年 11 月由得標廠商中信造船廠開工程承造，並於 90 年 3 月 20 日完工交船，命名為「台北艦」(CG116)，加入我國中長程海域巡防工作，自服役以來，績效卓著；有鑑於此，更於 94 年度再次由中信造船股份有限公司得標建造另一艘同型姊妹船艦，命名為「南投艦」(CG122)，甫於 94 年 4 月 29 日由行政院謝院長賢伉儷親自主持「下水」及「擲瓶」典禮儀式。

「台北艦」(CG116)艦身長 61.41 公尺，模寬 9.5 公尺，船高 5.1 公尺，設計吃水 2.8 公尺，滿載排水量 680 噸，載重量約 140 公噸；巡防艦動力來自兩部德國 MTU 製柴油引擎，每部出力 7804 馬力，雙軸推進器五葉螺槳，最高航行速率達 30 節，經濟航速 12 節，續航航程達 4,600 百浬，乘員配置為 40 人。本型船體建造與檢驗，包括船體、輪機、電機、艙裝及安全設備等均符合中國

As a seafaring country, Taiwan not only relies on its defense dynamic to secure its territories, but there is also a compelling need for securing its maritime sovereignty claim and security enforcement dynamics. With that, to enforce patrolling the territorial seas around the Ishigaki Island, Dong Sha and Nan Sha areas, the Maritime Patrol Directorate General Office, responding to the locally built state vessel policy, has in 1999 commissioned a vessel be built by mirroring the 500-T Chin Jiang class frigate, which is currently in service and proven effective through the Navy's testing validation, followed by shipbuilding that begun in November of the same year with the contract awarded to the bidder Chung Hsin Shipbuilder, and the vessel has since March 20, 2001 been completed and delivered, and formally named as 「Taipei」 (CG-116), joining Taiwan's mid and long-range sea patrol duties and earning a fine reputation with excellent performance. With the prior records, the administration has once in 2005 commissioned Chung Hsin Shipbuilder to build an identical sister ship, which has been named 「Nantou」 (CG-122) that has just been inaugurated in a champagne christening ceremony presided by premier Hsieh and wife on April 29, 2005.

The 「Taipei」 (CG-116) measures 61.41M in length, 9.5M in width, 5.1M in height, with a 2.8M draught, and 680T displacement at full load, carrying approx. 140T. The frigate is powered by two German MTU diesel engines, with each rated at 7,804HP, with duo five-blade propeller, sailing at a top speed of 30 knots, or economic cycle of 12 knots, and a continuous sailing capability of 4,600 nautical miles, and boards 40. The building and inspection of the ship model, including that of the ship hull, engine, electrical, instrumentation, safety equipment and so forth, are fully compliant to demands and guidelines set by Chinese Ship Rating Center (CR) and Norway Ship Rating Association (DNV), with a vessel grade rated to the class of CR100 + "PATROL VESSEL", CMS+DNV+1A1, HSLC, RO, PATROL. Onboard the ship are more than the modernized satellite navigation system and communication system, and the weaponry equipment include two 20mm machine guns, two .50



● 台北艦英姿(一)。  
A majestic view of the SS Taipei - I



● 五百噸級巡防艦配置之自動扶正救難快艇。  
The 500-T frigate is fitted with self-righting rescue speedboat



● 南投艦近照。  
A close shot of the SS Nantou



● 台北艦泊港。  
The SS Taipei mooring at port

驗船中心 (CR) 及挪威驗船協會 (DNV) 之要求與規定，而其船級之級位為 CR100+"PATROL VESSEL", CMS+DNV+1A1, HSLC, RO, PATROL。船上除具備現代化衛星導航、通訊系統外，武器配備包括有國軍聯勤司令部所生產之 20 公釐機砲 2 座、50 機槍 2 挺及國造 65 式步槍等。本艦於主機艙左右舷各裝置一部不可伸縮穩定翼，當船速到達 25 節時，穩定翼控制系統會依船舶橫搖量，控制穩定翼之角度產生抗橫搖力矩，使船艦穩定度達 80%，具有高速、靈活、舒適、耐航、安全等特性。

為保障遠洋航行安全，在安全性上特別著重，40 人的編制，配備了 2 艘 20 人座的救生筏；此外，為達海上聯合查緝作為，艦上還搭載了兩艘漆成全紅色的高速警備救難艇，這種可自動扶正的專業救難艇是我國第一次擁有這樣的裝備，本級艇船殼為強化纖維樹脂，長 8 公尺，寬 2.6 公尺，深 1 公尺，最大吃水 0.8 公尺，滿載排水量 3.5 公噸；主機為一部 VOLVO PENTA YAMD 41 型柴油引擎，出力 200 匹馬力，航速 20 節，巡航速率 20 節，航程 200 海里，乘員 6 人，可與母船展開同步 20 節之快速航行聯合查緝作業，符合國際海事組織 (IMO) 及挪威驗船協會 (DNV) 規範。2 艘自動扶正警備救難艇，在惡劣的海象下，擁有翻覆時自動翻正艇身的功能，無論救人、自救均能在最短時間內發揮最大的功能。

「南投艦」(CG122)，各項諸元與「台北艦」相同，並依近年海域執法、海洋事務服務等任務需求考量，在配置救難小艇配置上之設計規劃上，採用船尾放收方式下水，除可獲得操作靈活之目的，且傾覆時仍可靠自體預留浮力自動扶正，並強化駕、住艙空間之防噪音功能，是一款符合現代海巡任務的高性能巡防艦。

(作者現任職於海洋巡防總局第八海巡隊)

machine guns produced by the Joint Forces Artillery Commanding Headquarters, and locally produced .65 rifles and so on. To the left and right starburst of the vessel is one each inflexible, fixed wing, which extends out to help to stabilize the vessel in angular compensation with sway resistance when the vessel speed reaches 25 nautical knots, allowing the vessel to achieve an 80% stability, offering high speed, flexible, comfortable, navigation resistant and safe features.

To safeguard open sea navigation safety, the vessel has its safety feature revolving around a 40 men mobilization, and is coordinated with two 20-seater lifeboats; in addition, to respond to joint sea crackdown missions, onboard the vessel are two red lacquered high-speed mission mobilization/rescue boats, which are self-righting and are professional rescue speedboats marking a first in Taiwan history. The vessel hull class is fabricated out of reinforced fiberglass resin, measuring 8M in length, 2.6M in width, 1 M in depth, with an 0.8M maximum draught, and has a 3.5T maximum displacement, and is fitted with a Volvo Penta YAMD-41 model diesel engine, rated at 200HP that sails at 20 knots, with a patrol cruise of 20 knots, and a navigation distance of 200 nautical miles, seating 6, which is capable of synchronizing with the mother ship sailing at a fast speed of 20 knots to carry out joint crackdown missions that fully meet guidelines set by International Maritime Organization and Norway Ship Rating Association (DNV). The two self-righting defense mobilization speedboats will automatically return to an upright position when overturned under the most severe oceanographic conditions to offer maximum yield in life rescue or self help within the shortest time imaginable.

Many aspects of the 「Nantou」(CG-122) are identical as that of the 「Taipei」 and taken into account the mission demands in maritime law enforcement and maritime affairs services, which is designed to load the rescue boat through lowered it into water via the bow to achieve the objective of a flexible maneuver but are capable of self-righting and staying buoyant even if capsized. They also come with reinforced maneuverability, enlarged living quarters and noise reduction to make them a high-performance frigate model that meets the modern demands of carrying out coast guard missions.

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