

FUTURE NAVAL PLANS - SECTOR REPORT 2009

Country-by-Country Analysis

Argentina

Project PAM (Patrulleros de Alta Mar) is for up to 5 OPVs of 1,800 tons. With a length of over 80m, the ships are to have diesel propulsion and to be armed with a 40mm gun. The ships will be built at the Rio Santiago shipyard, with construction expected to begin in 2009.

Australia

The Royal Australian Navy is simultaneously upgrading its eight "Anzac" class (MEKO 200) and the four "Adelaide" (FFG-7) class frigates. The "Anzac" class frigates are being upgraded to improve anti-ship missile defence capabilities.

Belgium

The naval component plans the replacement of its frigates by multi-role escort ships, the upgrade of its mine hunters and the introduction of a strategic transport ship.

Brazil

An official confirmation of plans to acquire four diesel electric submarines, built to a design derived from the SCORPENE licensed from DCNS, came in December 2008. Three conventional boats will be built at a new shipyard to be constructed by local engineering firm Odebrecht at Itaguai, 500km south of Rio de Janeiro. The new shipyard will be known as Arsenal de Sepetiba and will include a new home base for the Submarine Force, set to move from its current site at Naval Base Almirante Castro e Silva, at the Bay of Guanabara, close to Rio de Janeiro. DCNS will build the lead of the series at its Cherbourg Shipyards. The total cost of the project, including the construction and fitting of the shipyard and the building of four submarines, is said to be in the area of US\$4Bn.

According to local sources, work towards the nuclear submarine during the last three decades had accumulated US\$1.1Bn by 2006. To date, the official line is that an additional budget allocation of no less than US\$1.5Bn will be needed, in order to facilitate construction of a first nuclear powered submarine by 2020.

However, many observers believe that current financial and schedule expectations surrounding the project are over-optimistic – year 2030 would be a more realistic deadline to see a Brazilian nuclear powered submarine going to sea, if a budget close to US\$2.5Bn is secured.

The main role of the Navy, according to the New Defence Strategic Plan is to provide security to the new oil and gas fields of TUPÍ and JUPITER off the coast of Rio de Janeiro. Despite the financial constraints during recent years, the Brazilian Navy deploys the largest fleet in South America.

Regarding amphibious capabilities, the single “Newport” class LST “Mattoso Maia” and both “Thomaston” class LPDs “Ceara” and “Rio de Janeiro” were re-inforced between 2007 and 2008 with the acquisition of the ex-Sir Galand 2008 re-named “Garcia D’Avila” and ex-Sir Bedivere renamed “Almirante Saboia,” both joining the fleet in Brazil after completing a refit in Falmouth in July 2009.

In 2005, the six “Niteroi” class frigates completed the MOD-FRAG refit programme, receiving a complete upgrade of their combat systems. According to reports, plans exist to replace them during the next decade by six FREMM multipurpose frigates equipped with cruise missiles and a long range air defence system.

In September 2006 the Brazilian Navy ordered two NAPA 500-class offshore patrol vessels (OPVs) based on the Vigilante 400 CL 54 design from French shipbuilder CMN Group. Displacing 477 tons the ships are being built locally at Brazil’s INACE (Industria Naval do Ceara SA) yard at Fortaleza and were due for delivery in 2009. A further 4 OPVs have been approved, with a total of eight ships planned.

The aircraft carrier “Sao Paulo” is the only vessel of this kind in service in South America. Recent reports about plans to acquire and modify some S-2 aircraft for ASW and AEW roles, as well as to upgrade the AF-1 SKYHAWK jet fighter bombers for a guided weapons capability including anti-ship missiles, indicate intentions to develop the potential of this ship.

Brazil is on its way to deploy a fleet including an impressive submarine force by the end of the next decade. It will be made up of nine modern and capable diesel-electric boats, including the “Tupi” and “Tikuna” class, which are going to be fitted with a new combat system provided by Lockheed Martin and Mk48 heavyweight torpedoes.

Canada

On the 9th July 2007, Prime Minister Stephen Harper announced a procurement programme for up to 8 ice-capable arctic OPVs (A/OPVs) with a Polar class 5 classification.

The project is estimated to cost CAN\$3.1 billion (US\$2.45 billion) and the first vessel is due for delivery in 2013. BMT Fleet Technology was awarded an initial CAN\$4.5 million contract for the definition phase of the contract with STX Canada Marine and BAE Systems and will produce a design to determine the navy's requirements.

The Canadian Navy's only operational submarine, HMCS Corner Brook, will enter an extended docking work period (EDWP) in 2011, Canada's Department of National Defense (DND) has confirmed. Canada is attempting to re-establish its submarine capability through the CAD1.5 billion (US\$1.51 billion) Victoria-class In-Service Support Contract (VISSC) awarded to Canadian Submarine Management Group (CSMG) on the 30th June 2008. Two boats, HMCS Victoria and HMCS Windsor, have already entered EDWP with HCMS Chicoutimi scheduled to begin EDQP in January 2010.

Chile

On the 15th October 2008, Chile's government-owned shipyard Astilleros y Maestranzas de la Armada (ASMAR) launched the second of 4 patrulleros de zona maritime (PZM) OPVs under the Chilean Navy's Danubio IV project. The first ship, Piloto Pardo, was commissioned in June 2008 with the second ship, Policarpo Toro, due to handover in 2009.

China (PLA Navy)

The latest member of the Chinese diesel/electric submarines family is the YUAN class (Type 039A, or Type 041A, according to other sources). Based on the current pace, ten boats are expected to be in service by the end of 2010. The other Chinese newcomers are the SHANG-class (Type 093) SSNs and the JIN-class (Type 094) SSBNs. The attack submarine was designed with Russian support, though contrary to earlier reports, it bears no resemblance to the VICTOR-III boats. Two new SSBNs are already in service, with a further pair being built.

While the former Russian aircraft carrier (ex-Varyag) is nearing completion, to be commissioned as training carrier "Shi Lang," local media report that construction of the first domestic 48,000 tons aircraft carrier may start this year or 2010 at the latest, at the new Changxing Island Shipyard of Shanghai's Jiangnan Shipyard.

Colombia

2 OPVs are reportedly being built for delivery in 2012.

Croatia

The Croatian Navy plans to have built domestically up to 10 fast patrol craft of 40m under a E95M contract and two plus two advanced corvettes for another E400M; however, the latter programme in particular looks extremely doubtful due to severe budget pressures.

Denmark

The three new frigates of the RDN will be named HDMS "Iver Huitfeldt" (F 361), HDMS "Peter Willemoes" (F 362) and HDMS "Niels Juel" (F 363). The first-of-class is being put together at the Lindo dry dock of Odense Steel Shipbuilding and is scheduled for final outfitting from December 2010 and commissioning in 2012.

Ecuador

Plans to acquire an OPV.

France

A third BC (Batiment de Projection et de Commandement) is going to be built by DCNS to augment the capabilities of "Mistral" and "Tonnerre." Sources indicate that a fourth BPC is likely to be ordered to replace the retiring training ship "Jeanne d'Arc."

On the 26th June, French Defence Minister Herve Morin placed an order with state-owned ship builder DCNS for a second Barracuda nuclear-powered attack submarine (SSN), Duguay-Trouin.

Steel for the first new boat, Suffren, was cut in late 2007 under the French Navy's EUR7.9 billion (US\$11 billion) programme to replace its six Rubis-class SSNs from 2017 on a one-for-one basis. The new SSNs and frigates are essential because they support the two pillars of the navy: the aircraft carrier Charles de Gaulle and the country's four Le Triomphant-class ballistic nuclear missile submarines.

The fourth and final SSBN, Le Terrible, was rolled out by DCNS in March 2008 and, following trials, is now qualified for duty.

When they drafted the 2008 white paper, French military planners provided for the navy to move towards a two-tier high seas defence force. On one hand there would be an 18-vessel 'front line' surface combatant force consisting of the 11 FREMMs, five La Fayette-class frigates and two Forbin-class (Horizon) air warfare destroyers. The second tier will consist of less complex ships intended for low intensity blue water missions. France has just six 20-year-old surveillance frigates in its fleet at present that could qualify for the second tier.

It is intended to transform nine other vessels, including the current D'Estienne d'Orves-class frigates, into high seas patrol boats.

Last year's white paper on defence and security reduced France's procurement under the FREMM programme from 17 ships to 11 (with the first scheduled to join the fleet in 2012). No details have been given as to how this total will be split between the variants. The most urgent requirement is to replace two (out of four) cancelled HORIZON air defence destroyers with two new FREMM Frigate de Defense Aerienn (FREDA).

Germany

In September 2006 the Deutsche Marine ordered the second batch of two Type 212A submarines to supplement the four boats already in service and complete the programme. They are expected to be commissioned in late 2012 and 2013 respectively.

The Type F123 frigate phased improvement programme phase 2 to be contracted soon. This task is manpower intensive, as phase 2 means to extend the length of the frigate for increased stability, and to replace the NATO Sea Sparrow Missile (NSSM) system by integration of the Evolved Sea Sparrow Missile (ESSM) system.

Construction continues of the third combat support vessel Type EG1/702, as well as the acceptance of the final three units of the K130 corvettes in 2009.

Project K131 is of high importance, first because the guided missile fast patrol boats need replacing soon, and also in view of the new tasks and experience with the K130 fulfilling these new tasks. This new type will not be a second batch K130, it will be a ship with so-called two-dimensional capabilities.

The German Navy is also procuring four "Baden-Wuerttemberg" class (F125) frigates, which are expected to enter service in the 2014-2017 timeframe.

Greece

New Type 214 submarines are on order by Greece. The PAPANIKOLIS class has the lead boat being built in Germany and three follow-on submarines at Hellenic Shipyards in Skaramanga.

Greece is upgrading three or four of its Type 209-1200 boats under the NEPTUNE – II programme.

TKMS-Hellenic Shipyards (HSY) has established a new frigate programme office in Skaramanga to co-ordinate, prepare and implement all actions related to the anti-air warfare frigate project. The new frigate project could expand to include up to eight vessels.

INDIA

The Indian Navy is concentrating on developing a network-centric capability to augment its emerging 'blue-water' status to dominate Indian Ocean Region (IOR) sea-lanes by controlling choke points and trade routes. According to the IN's classified Maritime Capabilities Perspective Plan, its present tally of 130-136 ships and submarines will increase to 160 by the end of the 13th Defence Five-year Plan in 2022, while its fixed air-wing and rotary assets will more than double to around 350-400.

This force structure of missile destroyers, frigates and corvettes centres around at least two, if not three, aircraft carrier battle groups – one for each coast and a possible third in reserve – and will be supplemented by submarine and aviation assets all equipped with long-range precision-guided munitions capable of anti-ship and land-attack missions. Network-centric platforms and sensors, new and upgraded MRAs, combat aircraft and attack helicopters, unmanned aerial vehicles (UAVs) – including rotary-wing UAVs – mine-counter-measure ships and auxiliary forces will complete the navy's emerging force structure to accentuate maritime domain awareness.

DCNS of France signed a contract in October 2005 for six SCORPENE-type submarines to be built at Mazagon Dock in Mumbai as the first step in Project 075 (Project 075A), with an additional nine boats as an (unlikely) option.

The original schedule called for the first boat to be delivered in 2012 and the entire class to be in service by 2017, but the programme appears having been delayed by difficulties with the technology transfer package.

The IN, in conjunction with Mumbai-based private contractor Larsen & Toubro, plans to build three to five additional ballistic missile submarines (SSBNs) by 2015-17 and develop submarine-launched cruise missiles (SLCMs) with ranges of more than 1,000 km under a classified programme of the state-run Defence Research and Development Organisation. The IN currently has 44 ships and submarines on order, 39 of which are being indigenously built, as the navy has taken the lead over the other two services in indigenising and privatising its equipment requirements.

These include two aircraft carriers, nine destroyers and frigates, six submarines, four corvettes, one tanker, three offshore patrol vessels, ten fast attack craft and eight additional combatant and auxiliary boats.

Indonesia

Two new patrol craft were launched in January 2009, tentatively assigned the designation KRI "Tarihu 827" and "Tarihu 829" to be commissioned into the Western Fleet Command. The Secretary General for the Defence Ministry, also announced in January that the Ministry had decided to postpone the purchase of two Russian-made submarines that it had intended to purchase for the Indonesian Navy as part of its 2004-2009 Strategic Plan.

The purchase would instead be incorporated into the 2009-2014 Strategic Plan. However, the Navy expected the government to initialise the purchase and sign the contract this year.

Iraq

A fleet of 20 30-35m coastal patrol boats and 3 OPVs plus associated equipment and services are to be acquired in a programme worth \$1.01 billion.

Italy

Italian shipyard Fincantieri announced a follow-on order for a second batch of Todaro-class submarines in August 2008. Construction is to start in 2010 and the boats are due to be delivered in 2015 and 2016.

The Italian carrier “Cavour”, now undergoing sea trials and close to commissioning, will have a double role as both traditional aircraft carrier and amphibious carrier.

This year marks another major milestone in the Franco-Italian Horizon project, which will see two of the PAAMS (Principal Anti-air Missile System) – equipped anti-air warfare (AAW) surface combatants enter service by the end of 2010. The first-of-class ITS Andrea Doria was delivered by Fincantieri in December 2007 and is due to achieve full operational capability this year. The second ship, ITS Caio Dulio, was delivered on the 23rd April 2009 and is to become operational in 2010.

The Italian Navy is to receive up to 10 of the next-generation Bergamini-class 6,000-ton AS and general-purpose frigates from 2012 to replace Maestrone- and Artigliere-class frigates that entered service in the 1980s and 1990s and represent the backbone of Italy’s ASW and escort capability. To date, Fincantieri and partner Finmeccanica are under contract to build a total of six Bergamini-class (FREMM) frigates. It remains to be seen whether funding will be forthcoming for the third batch, comprising four land-attack-ruled vessels. Construction of the first two Italian “Bergamini” class is progressing; they were named “Carlo Bergamini” and “Carlo Margottini.” The first commissioning for both French and Italian Navies’ FREMM is expected in 2011, with deliveries scheduled over a five-year period until 2016.

While Italy is the home of the internationally successful Intermarine-designed glass reinforced plastic (GRP)-hulled dedicated mine countermeasures vessels (MCMVs), known as the Lerici/Gaeta class in Italian service, the conceptual idea for the succession of its 12 existing vessels calls for the acquisition of a larger vessel type better suited for overseas deployments that will remain outside minefields and clear a path using remotely operated vehicles and autonomous underwater vehicles.

Moreover, the introduction of modular mission systems will allow other surface units such as the currently projected future corvette, due to enter from around 2018, to carry out MCM tasks. A total of six vessels, each displacing around 2,500 tons, is expected.

Japan

2 DDHM destroyers of the 19DD class are due to replace the Hatsuyuki class ships.

The spearhead of the future JMSDF underwater force is to be represented by the four units of the SORYU class (originally referred to as Improved OYASHIO). The first boat was launched in December 2007 and commissioned in March 2009, and the remaining three units should enter service in 2010-2012, with a possible fifth unit as an option.

Malaysia

The construction of the remaining 4 Kedah-class OPVs is experiencing delays as is the service life extension programme of the RMN's 2 Kasturi-class corvettes. However, the third Kedah-class OPV, KD Perak, was accepted in March as scheduled.

On the 26th January 2009 TD TUNKU ABDUL RAHMAN, the first of two SCORPENE-type submarines ordered by the Royal Malaysian Navy in 2002, was delivered on schedule by DCNS in Toulon. The second unit, TD TUN RAZAK built in Spain by Navantia, began sea trials on the 11th February, and was scheduled for commissioning in October 2009.

Mexico

2 Oaxaca class OPVs are being built, for commissioning in 2010. A further 2 are planned.

Netherlands

Damen-owned Schelde Naval Shipbuilding has received a EUR240 million (USD345 million) contract from the Netherlands' Defence Materiel Organisation (DMO) to deliver 4 Patrol Ships (Patrouilleschepen) for the Royal Netherlands Navy (RNLN). These vessels are of the Holland-class and are to replace the 6 Karel Doorman class frigates.

The first 2 vessels will be built by Schelde Naval Shipbuilding at its facility in Vlissingen with deliveries scheduled for between November 2010 and November 2012. Construction of the second pair will be focused on Damen Shipyard Galatz in Romania under supervision of Schelde Naval Shipbuilding. The keel for the first ship was laid in December 2008.

The RNLN and Belgian Navy are upgrading their M-Class frigates. The programme is to be carried out in 2010-2012 and includes modifications to operate NH-90 helicopters, the addition of the Thales SEASTAR radar, the replacement of the current SEWACO VIIB combat data system with GUARDIAN MFF, and the addition of low frequency active sonar.

The four RNLN “De Zeven Provinciën” class air-defence frigates will also benefit from a development programme aimed at providing new operational capabilities.

The Royal Netherlands Navy will upgrade its four “Walrus” class submarines with the second generation escape system HABETaS. A contract for the delivery of eight HABETaS units was signed on the 3rd June.

New Zealand

The first of four 340-ton inshore Patrol Vessels (IPVs) for the Royal New Zealand Navy was commissioned on the 17th April 2009, with the remaining three IPVs delivered by the end of May.

A major study of the future composition of the naval fleet will be completed. This will identify a suitable multi-role, long-range vessel to be phased in as HMNZS Canterbury is retired. The study will also consider how best to meet civilian requirements for coastal and mid-range offshore capabilities.

Other decisions concerning the Navy include:

- An independent review on the requirement for the Navy to provide a hydrographic survey capability.
- The continued reliance on charter arrangements for sealift. The Charles Upham will be sold at the end of the current charter.

Norway

Norway is in the midst of a major modernisation programme intended to reshape and re-orientate the Norwegian fleet so it can make a more telling contribution to international operations. This programme - which will see the introduction of five Fridtjof Nansen-class frigates, six Skjold-class fast strike craft, NFH90 shipborne helicopters and new afloat logistics ship – is intended to leave the RNoN somewhat smaller, but far better equipped to operate in support of NATO’s maritime reaction forces.

A profound change will come with the new force generation and deployment patterns consequent of operating as a task group. This will be a radical change for a navy that has traditionally operated in small squadrons or as single ships.

Norway has launched the upgrade of its six ULA-class submarines (sometimes also unofficially known as Type 210) commissioned in the 1989-92 timeframe.

5 Nornen Class OPVs are being procured for the Coast Guard.

Oman

BVT is building 3 new OPVs for the Royal Navy of Oman (RNO) under Project Khareef. At almost 99m in length and displacing some 2,500 tons these patrol vessels have also been classified as corvettes in some naval circles. Equipped with the Exocet anti-ship missile and the MICA vertical launch air defence system, the vessels will play an important role in any conflict situation. The contract with RNO was signed by VT Group (now BVT Surface Fleet) in January 2007 for £400 million. Construction started on the first ship in October 2007 with all three scheduled to be delivered by 2011. The vessel's size means it has good oceanic sea keeping qualities, a patrolling range of 4500nm and can operate a helicopter up to 12 tons.

Pakistan

Pakistan is procuring four new frigates of the "Sword" class (F 22 P). The first three vessels are being built in Shanghai, while the last unit is to be built in Karachi with Chinese technical assistance.

In 2006 Pakistan began evaluating a further procurement programme to enlarge its underwater arm, as two earlier AGOSTA-70 boats (HASHMAT class) are quickly approaching the end of their useful service lives. The contenders were the DCNS MARLIN (an improved and "all-French" SCORPENE) and the TKMS Type 214. The latter was eventually selected, and a contract is currently being negotiated. Three boats will be built in Pakistan, with the first delivery expected by 2014.

Poland

Two ex-Navy FFG-7 frigates were to be replaced with six to seven new Meko A 100-based Project 621 Gawron II-class corvettes that are being built by the Stocznia Marynarki Wojennej (SMW) shipyard in Gdynia. The first corvette, to be known as ORP Slazak, has been under construction since November 2001 and the hull was expected to be in the water in September 2008. However, the MND has no funds to cover manufacture of the corvettes for 2009 and 2010.

According to current estimates, the vessels are expected to cost PLN1.6 billion each due to the low production rate, which was linked primarily to insufficient funding being provided by the MND in 2001-07. According to current plans, no more than three – and, perhaps more realistically, only two – of the corvettes will be purchased, with the first not being in service before 2017.

Three Orkan-class (Project 660) fast missile craft have been upgraded at SMW in co-operation with Thales Nederland, which provided its Tacticos combat management system. However, the programme is also yet to be finalised. To maintain some real surface fleet capability, the MND cancelled the retirement of Poland's Gornik (Tarantul 1)-class fast-attack vessels and an upgrade of the two remaining ships was ordered.

Poland also wants to build new Kormoran II (Project 258) mine-countermeasures vessels to replace the once effective but already ageing Project 206FM and Project 207 vessels.

Potugal

A preliminary contract was signed with Viana do Castelo shipyard in December 2005, for the construction of 5 OPVs. Designed for EEZ patrol and fishery protection, the ships are to replace the Cacine class from 2008-2011.

Republic of Korea

The first LPX helicopter carrier, called "Dokdo," was launched in July 2005. The LPX class will have three units. The second-one ("Marado") is already being built and should be ready by 2010.

According to local reports, not confirmed by the government yet, a second three ship batch of KDX-III AEGIS destroyers is going to be ordered, while the second ship of the first batch, ROKS "Yulgok YiYi" was launched at Daweoo Shipbuilding & Marine Engineering (DSME) last November (Hyundai Heavy Industries/HHI had built the first-of-class ROKS "Sejongdaewang"). South Korea's order for the first of its new generation FFX was placed with Hyundai Heavy industries (HHI) last December 26th. Seoul is seeking 24-27 ships to replace 37 hulls with the lead ship entering service in 2011 and another six joining the fleet by 2015.

The KSS-2 programme was launched in November 2000 with an order for a first batch of three TKMS/HDW Type 214 submarines, fitted with fuel cells AIP, to be built by Hyundai Heavy Industries in Ulsan. The first two boats, SOHN WON-IL and JEONGJI, have already been commissioned, and the third unit is fitting out. A second batch of six identical submarines was then ordered in January 2009, under the form of HDW-delivered packages to be assembled by a yard, that will be selected by the MoD, boat per boat in a competition between Hyundai and Daewoo Shipbuilding & Marine Engineering, which already successfully built the nine Type-209 boats. Daewoo has won the contract for the first submarine of the second batch, while the follow-in orders are still pending. The six boats of the second batch are expected to be in service by 2020.

6 new OPVs are to be acquired by the Maritime Police. These will include three 3,000 ton helicopter-capable ships and three 1,500 ton ships.

Russia

The 2,200 ton "Stereguschchiy" frigate is progressing, with 4-6 follow-on units at different stages of construction that may be commissioned in a couple of years. The 3,600 ton "Grom" class is being cancelled and the "Borodino," still incomplete after 12 years in the Kaliningrad Yantar Shipyard, is planned to become a training ship and will be offered for sale.

The 4,500 ton “Admiral Gorshkov” is being built at Severnij Verf St Petersburg and is to be commissioned in 2013.

The Russian Naval Staff expects that construction of a nuclear-powered aircraft carrier will begin in 2012 or 2013.

The Navy is to receive two ‘stealth’ corvettes in 2010 and 2011, a spokesman for the United Shipbuilding Corporation announced in January. St Petersburg’s Severnaya Verf started construction of the “Soobrazitelny” in 2003 and the “Stoiky” in 2006. Russia plans to have up to 20 vessels of this class to ensure the protection of its coastal waters, as well as its oil and gas transportation routes, especially in the Black and the Baltic seas.

The Navy plans to cut the number of ships from 240 to 123 by 2016.

Saudi Arabia

Saudi Arabia has a requirement for six frigates to replace the “Madina” class units. The most likely contenders are variants of the Littoral Combat Ship and the Franco-Italian FREMM.

Singapore

The RSN has invested significantly in essential resources and capabilities to deter and respond to maritime security threats within the Singapore Strait. However, maritime security threats are constantly evolving and cannot be dealt with by one agency or even a single country.

To this effect, the Singapore Armed Forces (SAF) has restructured the RSN’s Coastal Command into an SAF-level task force, the Maritime Security Task Force (MSTF).

The two “Vastergotland” class submarines acquired in 2005 will be returning to Singapore from 2010. These submarines will be upgraded and converted for operations in tropical waters before they are delivered to the RSN.

The longest serving vessels in the Navy, six missile patrol boats of the “Sea Wolf” (FPB 45) class, were retired on the 13th May last year. Their replacements – under the 3rd Generation Plan – are the six TRIDENT “Formidable” class low-observable frigates, which entered service between 2005 and 2009.

For the future, Singapore will place its emphasis on working at multiple levels – including co-operative development of new technologies with Singapore Technologies’ various divisions – to achieve the highest possible level of security against the new-generation of maritime threats facing all South-East Asian countries.

South Africa

The Navy Chief of Staff, recently released the Fleet Modernisation programme which has confirmed reports that South Africa is seeking two amphibious assault vessels (LPH) under project MILLENNIUM (formerly one strategic lift vessel was envisaged), six OPVs under project BIRO (formerly 10 OPV), and one hydrographic survey ship under project HOTEL.

Under Project 'Biro' – 6 'multi-mission OPVs' are to be built in South Africa from around 2011.

Spain

Navantia is building four S-80A submarines for the Spanish Navy. The vessels are due to be commissioned by 2016.

In March 2008, Navantia launched its 27,000-ton amphibious strategic projection ship (Buque de Proyeccion Estrategica, BPE) Juan Carlos I, which will be the largest ship in the Spanish Navy when it enters active service in 2009, significantly enhancing the navy's ship-to-shore lift capabilities. Juan Carlos I, was launched at Ferrol shipyard in Spain on the 10th March 2008 and is being prepared for sea trials.

At its San Fernando shipyard near Cadiz, the Spanish Navy's fourth and final Buque de Accion Maritima (BAM) offshore patrol vessel (OPV) is being built. It's launch was scheduled for the 1st July 2009.

Sweden

The RSwN and Kockums have now completed work on the concept phase of the next-generation A 26 submarine, two of which were recommended by the supreme commander as a replacement for the Sodermanland class in the 2017-18 timeframe.

The detailed design contract and then the construction contract were planned to be signed with Kockums in early 2009 and 2010 respectively.

Delivery of the first two of five Visby class corvettes is expected in December 2009, with the remaining three due over the next four years.

The refit and modernisation of the first two Koster-class (modified Landsort-class) mine-hunters was completed in 2008, followed by sea trials. HMS Koster and HMS Vinga were returned to the RSwN in 2009.

The Swedish Navy began a major refit of the first A17M "Sodermanland" class air independent propulsion (AIP) submarines this year. The Swedish Defence Materiel Administration (FMV) has placed the contract with Kockums for work to be carried out on HSwMS "Sodermanland" at Musko/Nynashamn Orlogsvärv on Musko Island, south of Stockholm.

Taiwan

For many years now Taiwan has been vainly trying to procure modern submarines, to replace the two Dutch-made HAI LUNG-class boats commissioned in 1987-88 and the two obsolete GUPPY-II class boats.

In 2005 Taiwan announced the intention to fit Sub-HARPON missiles into the HAI LUNGS, and in mid-2008 the US Administration finally authorised the sale, together with other weapon systems.

Thailand

Acquisition of a Submarine Force remains a high priority, but funding problems continue to frustrate plans.

A new LPD was approved in September 2008, for delivery in 2012.

Trinidad and Tobago

BVT secured a £150 million (US\$216.5 million) contract in April 2007 to build 3 OPVs for the Trinidad and Tobago Coast Guard to increase the island nation's patrolling capability in the Caribbean Sea, provide increased protection for oil assets and fisheries, and contribute more effectively to anti-drug smuggling operations. Displacing about 2000 tons the 90.5m OPVs have a 20m flight deck for helicopter operations and can reach a top speed of 25kt. Construction started on the first ship in January 2008 and it was handed over in mid-2009 with the second ship entering the production cycle in mid-2008 and expected for delivery in early 2010. The final ship started construction in early 2009 with a delivery date scheduled for late 2010. They will have an endurance at sea of 35 days and a range of 5,000 n miles at 12 kt. Each ship will have crew of 70.

Turkey

Twelve corvettes will be delivered by 2011, with the initial Batch 1 eight-ship group costing US\$1.75Bn (slightly more than US\$218M each).

TCG "Heybeliada" (F-511) will conduct sea trials and weapons testing into early-2011, when it finally will be commissioned.

The Navy last year firmly established its future force objective of retaining a 20 frigates force: ten "O.H.Perry" class, two "Knox" class, four MEKO 200TN IIA or "Barbados" class and four MEKO 200 TN "Yavuz" class.

On the 19th February, the Navy awarded a contract to Lockheed Martin for upgrading the Mk92 Fire Control System (FCS) onboard four of the former "O.H. Perry" class and two MEKO TN IIA frigates.

Next size down are the six (vintage 1972-1979) Type A69 corvettes, only bought in 2001-2002 from France but to be replaced by the 8+4 MILGEM corvettes.

The TF-2000 anti-air warfare (AAW) frigates have been in the RfI-to-RfP loop for a decade. Final design approval will be in 2011, with Batch I contract awarded in 2014, with immediate lay down of Hull No.1. The first two ships would commission in 2021 and 2023, respectively. Batch II (Nos. 3-5) will follow in 2023 to 2028.

The fleet of small fighting vessels includes three Type Lurssen 57-052B "Kilic" class and 6 (+2 option) Type Lurssen 57-052 Mod "Turfan" class missile craft of which three are already commissioned; 10 "Dogan" class Type Lurssen 57 missile craft; and eight torpedo boats of mid-sixties vintage transferred from Germany, which have been equipped with four PENGUIN anti-ship missile launchers.

The new building programme of 16 nationally-developed 400 ton patrol craft to be built under a US\$545M contract by DEARSAN Gemi Insaat Sanayii AS at Tuzla/Istanbul constitutes an important modernisation of assets, with deliveries slated for the 2010 – 2015 period. However, at present they are planned as patrol boats only, with armament restricted to a 40mm and two machine gun mounts.

The Mine Countermeasure fleet consists of a mix of six modern Type Lurssen MHV 54.014 "Alanya" class minehunters built by Abeking & Rasmussen and locally at Pendik Shipyard Istanbul; five "Cirec" class mine hunters of early-seventies vintage with mine divers and two PAP 104 ROVs obtained from France in 1997; five US Type MSC 289 minesweepers of mid-sixties vintage; and eight US Type MSI of similar age, plus three mine layers.

Approval has been given for procurement of a new amphibious ship dock (LPD), which followed release of a revised Request for Information (RfI) in April 2007. The anticipated 160m, 5,000 tons design contract is expected this year, with a building contract award in early-2011. First ship should commission in 2014, with the second in 2015. The two new ships will replace two "Ertugrul" class LST ships which have been in service for 55 years already.

Eight Landing Craft Tank (LCT) will be built to an RfP issued in March last year.

The formal RfP for a Submarine Mother Rescue Ship (MOSHIP) was issued last May and six Turkish shipyards responded. Concept design work began three years ago and a construction contract is expected to be released in 2012, with construction to begin in the following year and commission in 2016.

An RFI for two Rescue and Towing Ships was released in July 2006 and the RfP was also issued last May. A construction contract is likely in 2010, with the first ship commissioning in 2013 and the second in 2014.

SMM classified several other forthcoming projects as part of the Auxiliary Ship Group of future projects, all for national shipyard construction. These include in the coming decade: a Fleet Replenishment Ship (AOR), a Schooner Type sail training ship (AX); and an MTS Seismic Research Ship (AGOR/AGS). There are also eight other projects involving small craft, plus modernisation of the SAR-35 class craft contracted last May.

The submarine fleet constitutes a substantial fighting power. Eight modern Type 209/1400 "Preveze" class, plus six Type 209/1200 "Atilay" class built from the early seventies to the late eighties, are in the inventory. In late-July last year, the SSM announced formal selection of six HDW Type 214 diesel-attack submarines under a EUR2.5Bn programme. The first submarine is likely to be laid down in 2010, with first-of-class to commission in 2015. Further deliveries will be at about one every two years, with final commissioning in 2025. The six submarines will replace the Type 209/1200 "Atilay" class.

UAE

UAE Naval Forces will acquire 12 new patrol boats for AED 771.1M (E172.9M) and retrofit the twelve existing GHANNATHA boats in their fleet for AED164.3M (E36.8M). The first three boats of the new series will be built in Sweden by Swede Ship Marine, the rest by ADSB.

U.K.

Royal Navy Procurement Plans

With the Type 45 destroyer build programme now well advanced, and the Queen Elizabeth-class aircraft carriers fast transitioning from design to manufacture, the UK Ministry of Defence's (MoD's) Above Water Capability branch – working in close concert with other MoD stakeholders, the Royal Navy (RN) and industry – is now shaping its strategy for the phased recapitalisation of the RN's frigate and mine-countermeasures (MCM) forces over the next 10-15 years.

These projects – embodied in the respective Future Surface Combatant (FSC) and Future Mine Countermeasures Capability (FMCMC) programmes – represent the net 'big ticket' investments for the RN's surface fleet, coming after the modernisation of the specialist amphibious shipping fleet in the 1990s, the investment in the new Type 45 air defence destroyers endorsed at the start of this decade and, latterly, the approval for the construction of the two Queen Elizabeth-class carriers.

The FSC programme represents the core loads for the UK's naval construction industry in the era after the delivery of the two Queen Elizabeth-class aircraft carriers. In early 2006 the MoD began to look afresh at its strategy to sustain its maritime surface combatant capability.

This took the form of the Sustained Surface Combatant Capability (S2C2) study – a 12-month activity intended to produce a road-map for the delivery of an affordable and sustainable Joint Maritime Surface Combatant Capability, and to inform work to procure an FSC solution. The S2C2 study yielded a bold plan to recapitalise the bulk of the sub-capital ship fleet through to 2035. The strategy outlined the FSC capability being delivered by three distinct ship types.

These were designated as a Force Anti-Submarine Warfare [ASW] and Land Attack Combatant (known as C1), a Stabilisation Combatant (C2) and an Ocean-Capable Patrol Vessel (C3). The effect of this approach would be to rationalise eight existing classes down to just three. The capability currently delivered by the Type 22s and Type 23s would be replaced by C1 and C2, while C3 would replace the RN's dedicated MCM hulls but also offer additional capability for maritime security tasks.

The current planning assumption is for a class of 18 ships: 10 C1 variants entering service from around 2020, to be followed by eight C2 ships from around 2030. An FSC programme board convened in early 2009 to undertake a first options review for C1. It examined 35 design variables, using an equity tool to trade cost against capability, to produce a baseline design concept. As of August 2009, the Above Water Capability branch was finalising its case of C1 ahead of its presentation to the MoD's high-level Investment Approvals Board later in the year. The assessment phase will be split into two stages: a 12-month analysis of options intended to further 'nail down' the big ticket design characteristics by the end of 2010; and a detailed design phase lasting perhaps two-and-a-half years to mature the design in preparation for the manufacture. With C1 wearing a nominal price tag in the order of GBP400 million (US\$662 million) per unit, there is a drive to maximise pull-through from the Queen Elizabeth class, Type 45 and ongoing Type 23 upgrades in and effort to both reduce risk and capitalise on previous investment and/or existing system inventory.

The projected FMCMC programme is intended to address a series of shortfalls – with regard to deployability, tempo, vulnerability and cost of ownership – affecting the UK's current MCM force.

At its core is a radically different force architecture, based on portable, organic and dedicated (POD) assets, which emphasises the use of multiple networked unmanned systems to increase the pace, tempo and intrinsic safety of operations. This will render slow, specialised MCM craft redundant. FMCMC is now expected to transition into more detailed concept phase studies in early 2010. The increasing maturity and capability afforded by autonomous vehicles will first be demonstrated from existing MCM units, and only once it has been proved that reconnaissance, hunting, sweeping and disposal operations can be performed and controlled from outside the minefield will the complete transition be made to a new C3 platform.

As regards naval fire support, the 155 mm Third-generation Maritime Fires (TMF) research programme, funded by the MoD's Science, Innovation and Technology organisation, is now in its second phase, researching the technical feasibility of incorporating 155 mm ordnance into the current Mk 8 Mod 1 4.5-inch (114 mm) gun mount.

Royal Navy Above Water Sensor and Effector acquisition programmes;

Defensive Anti-Surface Warfare (ASuW)
Maritime Integrated Defensive Aids Suite (MIDAS)
Medium Range Radar (MRR)
Future Local Area Air Defence System (FLAADS) Maritime

The first of the long awaited new anti-air warfare destroyers, HMS “Daring”, finally joined the Royal Navy on the 28th January 2009.

Upgrade programmes continue on 13 Duke Class and 4 Broadsword class frigates, which are planned to be replaced by FSC.

The UK MoD ordered the first three ASTUTE-class SSNs for the Royal Navy from BAE Systems in March 1997. A fourth unit was ordered in May 2007, and three additional units are planned and expected to be ordered, being built to a “22-month interval,” providing that the Royal Navy is fully satisfied with the results of the first batch, and the Treasury is willing to allocate the required resources. The programme is now running four years late with a significant increase in costs (+47%), and is sometimes considered as the most troubled defence procurement effort in recent times. After the early cancellation of the FASM (Future Attack Submarine) requirement, a new MUFC (Maritime Underwater Future Capability) is being considered for an in-service date post-2020.

Uruguay

Plans to acquire an OPV.

U.S.A.

Future U.S. Navy Strategy

The USN states that the primary driver of its new proposal on destroyer procurement is a change over the past two years in its assessment of the future threat environment for navy ships. In particular, USN officials say they have become more concerned about threats that will be posed by ballistic missiles, anti-ship cruise missiles (ASCMs), and diesel-submarines operating in blue waters.

In light of the changed threat assessment, navy officials state that destroyer procurement needs to be oriented toward ships capable of BMD, area-defence anti-air warfare (AAW) and blue-water anti-submarine warfare (ASW) operations.

The USN wants to stop procuring its new Zumwalt-class (DDG-1000) destroyer design and instead resume procurement of Arleigh Burke-class destroyers (known by the first hull number – DDG-51).

Instead of continuing with the current programme of record, which calls for procuring five DDG-1000s between FY09 and FY13, in order to complete a planned class of seven ships, the USN's new proposal is to procure eight DDG-51s between FY10 and FY15, in a 1-2-1-2-1-1 profile.

The navy has suggested that additional destroyers could be procured after FY15, until its planned next-generation CG(X) cruiser is ready for procurement. Specifically, it sees a need for 12 additional DDG-51s and has stated that procurement of the lead CG(X), which had been planned for FY11, may slip to about FY17.

The navy says the DDG-1000 programme is well managed and that the ship is suited for its intended missions of NSFS and operating in littoral waters. But it is not well suited, it says, for the navy's new priorities of BMD, area-defence AAW and blue-water ASW operations.

The reported slip in the schedule for procuring the lead CG(X) might have been an additional factor.

Austal has won the contract to design and build the US Department of Defence's next generation multi-use platform, the Joint High Speed Vessel (JHSV), as part of a programme potentially worth over US\$1.6Bn. As prime contractor, Austal will design and construct the first 103m JHSV, with options for nine additional vessels expected to be exercised between FY09 and FY13. The Joint High Speed Vessel is capable of transporting troops and their equipment, supporting humanitarian relief efforts, operating in shallow waters and reaching speeds in excess of 35 knots fully loaded. The vessels will be a joint-use platform between the United States Army and Navy.

The US Navy has placed a US\$14Bn multi-year procurement contract for eight "Virginia" (SSN 774) class attack submarines. The submarines are being built by General Dynamics Electric Boat as prime contractor and Northrop Grumman Shipbuilding. This third Block III contract calls for one boat per year in fiscal year 2009 and 2010 and two per year in FY 2011, 2012 and 2013.

The next generation aircraft carrier with the designation CVN-21 [earlier CVN(X)] is underway, design work having already begun eight years ago. The first piece of steel was cut in August 2005. The US\$5.1Bn detail and construction contract was signed on the 10th September 2008. A total acquisition cost for the CVN-21 is expected to be US\$11.7Bn. The keel of USS "Gerald R. Ford" (CVN-78) is scheduled to be laid in late 2009.

The LHA "Tarawa" replacement, LHA, initially known as LHX, will respond to different requirements, first of all to the growing requirement for aviation spaces caused by the 2015 configuration of the Marine Air-Ground Task Force.

Together with "Making Island" the lead ship of a series of four will replace the decommissioned LHA-3 "Belleau Wood" and LHA-2 "Saipan". Additional LHAs (up to a further 4-8 ships are being considered) would possibly have other features, which are now being evaluated.

FY2010 Budget

As anticipated, Secretary of Defense Robert Gates signalled his support for USN's major surface combatants.

He stated that the LCS programme's FY10 funding will accelerate from two to three ships in addition to shoring up long-term support for LCS by re-emphasising the DoD's commitment to the ultimate goal of 55 ships.

The Navy is struggling to get acceptable fixed-price deals for a second Littoral Combat Ship (LCS) from each of the two shipbuilders this year. Only one of the lead ships has been tested and accepted by the Navy. And it is probably two years from becoming operational. The second LCS was supposed to start sea trials in June and be delivered to the Navy in September.

Unofficial Navy projections for future budgets call for buying four LCS in FY11, five each in FY12 and FY13, seven in FY14, and nine in FY15. But no one now expects the Navy to have enough shipbuilding funds for that aggressive schedule.

No changes were made to the successful Virginia-class programme, which currently calls for one submarine in FY10 and two boats per year from FY11 through to FY13.

Gates committed US\$200 million to fund Aegis conversions of six additional destroyers.

The Ohio-class ballistic missile conversion programme received a green light to commence in FY10.

"We will shift the navy aircraft carrier programme to a five-year build cycle, placing it on a more fiscally sustainable path. This will result in 10 carriers after 2040," Gates said.

The Zumwalt-class (DDG 1000) destroyer will remain a three-ship programme if the navy can negotiate a price to build all three at General Dynamics' Bath Iron Works instead of sharing work with Northrop Grumman's Ship Systems in Virginia.

The Arleigh Burke-class (DDG51) destroyer fared much better than the DDG 1000. Gates committed to restarting the DDG 51 programme at Northrop-Grumman's Pascagoula, Mississippi, facilities, but added that DDG 51 restarts may also move to Bath Iron Works if DDG 1000 is further truncated. 27 Arleigh Burke Flight IIA class destroyers are in service, with 7 more being built and a further 8 possible.

The navy's CG-X cruiser, which was anticipated to receive funding by FY17, will be delayed "to revisit both the requirements and acquisition strategy," according to Gates.

The proposed 11th San Antonio class Landing Platform Dock and Mobile Landing Platform amphibious programmes will also be put on hold for cost and strategy review. .

Venezuela

Navantia is building four 2,400 ton POVZEE (Patrullero Oceanico para la Vigilancia de la Zona Economica Exclusiva) OPVs for the Venezuelan Navy at its Puerto Real shipyard near Cadiz. Construction commenced on the 11th September 2008 with deliveries expected in 2010-11. They will carry out patrolling tasks in Venezuela's EEZ. They will eventually be accompanied by four 76m, 1500 ton Buque de Vigilancia de Litoral (BVL) coastal patrol ships that Navantia is building for Venezuela at its San Fernando yard. The first vessel, Guaicamacuto, was launched on the 16th October 2008 and commissioned in 2009 with the remainder to be delivered by 2011.