CSCAP MEMORANDUM NO. 21

Implications of Naval Enhancement in the Asia Pacific

A Memorandum from the
Council for Security Cooperation in the Asia Pacific (CSCAP)

August 2012

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Executive Summary

The capabilities of maritime security forces in the Asia Pacific region, (mainly Navies and Coast Guards) have been improving—with a few exceptions. With these enhanced capacities, the principal role of the navies continues to be that of strengthening national defence and enhancing deterrence. Meanwhile, the traditional constabulary functions of maritime security forces have expanded beyond the protection of resources within EEZs (Exclusive Economic Zones) to include law enforcement tasks against maritime terrorism, piracy and armed robbery, etc. Diplomatic and benign roles for the "common good" have expanded to include humanitarian assistance and disaster relief (HADR) operations. These roles are now being given equal emphasis along with traditional war-fighting roles.

Today there is a distinct change in the type and format of maritime challenges, which demand greater operational flexibility of maritime forces in dealing with them.

Interdiction of SLOCs and energy lifelines is a perceived threat with its roots in adversarial relations between States. The rise of the non-state actor and the amorphous nature of threats posed by them is the most serious peacetime threat.

Unfortunately, with the wider roles and increased capabilities of maritime security forces, the risks of stand-offs arising from incidents at sea have increased. Even minor incidents, could escalate into conflict due to the "trust deficit" between States. The competition for resources especially in disputed areas, as well as the complications arising from forces operating in closer geographical proximity and constrained sea spaces, aggravates the problem considerably.

This memorandum recommends measures for risk mitigation and enhancing the benefits of improved naval capacities. It encourages a cooperative and coherent approach for the "common good" to help overcome growing challenges at sea.

Introduction

This memorandum seeks to address the implications of the enhancement of capabilities of maritime security forces in the Asia Pacific region, (mainly the Navies and Coast Guards inclusive of forces that work primarily as Coast Guards but are named differently, for instance the Malaysian Maritime Enforcement Agency).

(Refer to Annex 1 for recent Naval Developments in Asia Pacific region)

It seeks to assess and review the rationale and implications of this growth while encouraging a common and coherent approach for using these capacities for the "common good" in overcoming the growing challenges in the maritime domain. It also proposes measures that might mitigate the possible risks arising from enhanced capabilities and maritime security forces operating in closer proximity.

Role of the Maritime Forces

- The role of Maritime Security forces in the Asia-Pacific region has undergone significant changes in recent years though their traditional raison d'être remains unchanged. While the maritime forces are in the process of evolving with enhanced capacities, improved capabilities and inventorial assets, the principal role of the navies continues to be that of strengthening national defence and deterrence.

- The rise of non-military operations has come to the fore and activities such as traditional constabulary and policing functions have expanded beyond the mere protection of resources, particularly within the EEZs (Exclusive Economic Zones) to include law enforcement tasks against maritime terrorism, piracy and armed robbery etc.

- The established diplomatic and benign naval roles for the "common good" have expanded to include various forms of HADR (Humanitarian Assistance and Disaster Relief) operations (inclusive of nuclear power plant accidents and natural calamities) that are important to many regional countries. Hence maritime security forces are being used prima facie more often to support humanitarian relief missions beyond national waters, leveraging confidence-building measures and for projecting maritime influence.

Enhancing capacities and the rationale for the growth

The growth of most regional economies during the last few years has led to a simultaneous rise in defence budgets (with some exceptions) particularly with respect to budgetary allocations to maritime forces of littoral states. Countries previously without agencies like the Coast Guard have established such an organization or have sought to enhance their capability.

The following reasons are often cited as important drivers for the enhancing forces:

- With the growing importance and dependence on maritime trade and energy supplies, there is an increased need to secure sea lines of communication (SLOCs) from rising asymmetric and symmetric threats.

- Enhanced constabulary and policing functions require greater capacity for surveillance, search and patrol.

- The vulnerability of the region to natural disasters, nuclear mishaps and manmade accident has ensured the demand for humanitarian assistance and disaster relief by maritime forces.

- Rapid development of naval technologies and the desire to access them for achieving national objectives.

Threat perceptions and risks

The changes in the type and format of maritime challenges demand a greater operational flexibility and capability for maritime forces than was previously the case.

The interdiction of SLOCs and energy lifelines is a perceived threat with its roots in adversarial relations between States and the level of existing mistrust. The rise of non-state actors and the amorphous nature of threats posed by them is the most serious peacetime threat.

Similarly, maritime terrorism and its manifestation and the increase in piracy have caused considerable concern. Apart from this, illegal transportation of drugs, refugees, arms by sea and their subsequent linkage to terror organizations is another area of security concern. Such challenges place greater demands on the operational capability of maritime forces.

Unfortunately, the risk of stand-offs arising from incidents at sea has increased. Such incidents, even minor ones, have the potential to escalate into conflict due to the existing “trust deficit” between states and possible “offensive posturing” among regional navies.

This problem is further aggravated by increasing competition for resource exploitation especially in disputed areas, as well as the complications arising from navies operating in closer geographical proximity and in constrained sea space.

Recommendations

Risk Mitigation

The following actions would contribute to the reduction of the trust deficit and mitigate the risks of escalation:

- Maritime Security and Confidence Building Measures (MSCBMs): These should be area specific and need to be conceptualized keeping in mind the participating littorals and the associated “politico- military will” to engage.

- Hotlines between the headquarters of regional maritime security forces.

- Wider acceptance of INCSEA type agreement or of the Code for Un-Alerted Encounters between ships (CUES) developed by the Western Pacific Naval Symposium (WPNS), including the members of the Indian Ocean Naval Symposium (IONS).

- Strict application of the International Convention for Preventing Collisions at Sea (COLREGS) in close quarters situations.

- Role of Preventive diplomacy: Preventive diplomacy in conflict escalation is a tool that countries may consider using in preventing a conflict or its escalation.

- Actions to develop a common understanding of law of the sea issues that are currently the subject of differences of opinion between regional countries e.g. rights and duties in the EEZ.

- Prior notification of naval exercises and weapon firings, whenever possible.

Benefit Enhancement and Capacity Building

One of the best ways to ensure the benefits of enhancing capacities of navies is to “share” and encourage cooperative approaches which help maritime security forces to overcome transnational characteristics of maritime threats and challenges. The following initiatives are suggested:

- Encourage Joint/ coordinated anti piracy and SLOC patrols for ensuring good order at sea—thus making sure that there emerges a greater degree of inter-operability and information sharing between navies.

- Active participation in the various established institutional structures, including but not exclusively limited to IONS, WPNS, ReCAAP, Meetings of the Heads of Asian Coast Guards.

- Encouraging MOUs for cooperative or joint patrols between countries with unresolved maritime boundaries.

- Training of naval personnel in military / non-military issues.

- Dialogues between maritime security forces at both national and regional level should be further enhanced, including the possible exchange of liaison officers between national maritime headquarters and coordination centres.

- Encourage regional exercises on non-military operations such as for HADR, Search and Rescue (SAR) etc, to enhance interoperability in such operations as well as to improve the operational readiness of individual militaries.

- Encouraging information sharing of “actionable intelligence” against maritime threats by overcoming systemic and bureaucratic hurdles.

Annex 1: Naval Development in the Asia Pacific (Selected Countries)

Countries	Recent Development, Primary Inventory Acquisitions and likely Projections for the next five to ten years
Australia	▪ Doubling the navy's submarines from the present six *Collins*-class vessels. ▪ Land-attack cruise missiles to arm new submarines, surface vessels and combat aircraft. ▪ Eight new frigates, larger and better equipped than the present *Anzac* class. ▪ New class of around 20 offshore combatant vessels of up to 2000 tones ▪ Large strategic sealift ship of 10-15,000 tonnes to enhance amphibious capability. ▪ Australian Defence Vessel Ocean Shield , an amphibious ship joins RAN Jul 2012. To be used for HADR and later transferred to Customs and Border Protection. ▪ Three new Air Warfare Destroyer (AWDs)
Indonesia	▪ Increase patrol and transport ships: replace ageing ships, safeguard borders, enhance logistical capabilities, and in support of HADR ▪ Standing request: 8 corvettes, 2 submarines, 3 LSTs, and 4 patrol craft ▪ By 2029, a 99-ship Striking Force, including 40 Guided Missile Escort, 26 Missile Fast Attack Craft, 16 Frigates, 10 Submarine ▪ Focus on defense industrial base and naval shipyard (increasing local content via joint venture) ▪ SIGMA (Ship Integrated Geometrical Modularity Approach) Technology: Possible "transformational bridge" (standardization)
Singapore	▪ The last of six *Formidable*-class frigates was delivered in August 2008 (all the vessels were commissioned in 2009) ▪ Two ex-Swedish *Vastergotland*-class (Archer-class) Submarines will supplement rather than replace the existing four *Challenger*-class
Vietnam	▪ Plans to obtain six *Kilo*-class Project 636 submarines ▪ Two 2,000t *Gepard* 3.9-class frigates ordered in 2006 were launched in December 2009 and March 2010. ▪ May 2010 order for six Canadian-built DHC-6 *Twin Otter* amphibian aircraft, three of these being the *Guardian* 400 maritime-patrol variant

China	▪ China's naval forces: 75 principal combatants, more than 60 submarines, 55 medium and large amphibious ships, and 85 missile-equipped patrol craft ▪ Construction of a new PLA Navy base on Hainan Island was essentially completed by 2010. The base is large enough to accommodate a mix of attack and ballistic missile submarines and advanced surface combatants ▪ Chinese aircraft carrier (refitted Varyag) undergoing extensive sea trials. Reportedly a training program for some 50 pilots to operate fixed-wing aircraft from an aircraft carrier ▪ The PLA Navy is improving its over-the horizon (OTH) targeting capability with Sky Wave and Surface Wave OTH radars ▪ China continues production of its newest JIN-class (Type 094) nuclear powered ballistic missile submarine (SSBNs) and may field up to five new SSBNs. One JIN-class SSBN has entered service alongside two new SHANG-class (Type 093) nuclear powered attack submarines (SSN), four older HAN-class SSNs, and China's single XIA-class SSBN. ▪ Further expansion of its current force of nuclear-powered attack submarines and may add up to five advanced Type 095 SSNs ▪ China has 13 SONG-class (Type 039) diesel-electric attack submarines (SS) in its inventory. The follow-on to the SONG is the YUAN-class SS, as many as four of which are already in service. China may plan to construct 15 additional hulls for this class. ▪ The PLA Navy continues to produce surface combatants. These include two LUYANG II-class (Type 052C) Guided Missile Destroyers (DDGs); two LUZHOU-class (Type 051C) DDGs; and four (soon to be six) JIANGKAI II-class (Type 054A) guided missile frigates (FFG) to be fitted with the medium-range HHQ-16 vertically launched naval SAM currently under development
Republic of Korea	▪ In its recent pursuit of a blue-water navy capable of operating on the high seas, the ROK has concentrated on commissioning large, capital ships, including the *Dokdo*-class landing-platform dock in 2007, six KDX-II (*Chungmugong Yi Sunshin*) destroyers from 2003–08 and two KDX-III (*Sejong the Great*) cruisers in 2007 and 2010 (three have been ordered in total). In the past decade, no new ASW-focused surface vessel, either corvette or frigate, has been commissioned. ▪ Three out of an eventual nine KSS-2 submarines (German Type 214s) have been commissioned in the past decade, and a new frigate class will be commissioned from 2011. ▪ Following the *Cheonan* incident, the navy admitted that it had started mass production of the *Hong Sangeo* ship-to-submarine missile/torpedo to be used on the KDX-II and KDX-III platforms; 70 of the two-stage anti-submarine missiles had been ordered in 2009.

	▪ In general, for 2011, key investments are expected in ballistic-missile early warning radar, *Aegis* destroyers, F-15K and SAM-X aircraft, new-generation multiple rocket launch systems (MLRS) and the K-21 infantry fighting vehicle program.
Malaysia	▪ RMN has to overcome the 17 ships transferred to the Malaysian Maritime Enforcement Agency (2005-06) ▪ In 10th Malaysian Plan six ASW helicopters have been asked for. ▪ Two Scorpene submarines (newly acquired) more planned in forthcoming plans. ▪ Hopes to acquire a LPD (Landing Platform Dock), New Generation Patrol Vessel NGPV (Littoral Combat ship Multi Purpose design) – (a squadron of it by 2020) ▪ Second class of Kedah class vessels, modernization of Kasturi class under SLEP (Service Life Extension Programme)
Philippine	▪ Modernization under CUP(Capability Upgrade Programme) in line with Philippine Navy Strategic Sail Plan 2020 ▪ Eight Hamilton class in pipeline (one joined in 13 May 2011) ▪ Purchase of submarines, 30 Patrol vessels and 2 LCUs envisaged.
India	▪ Lease of Akula II SSN (Chakra) from Russia ▪ SSN *Arihant* being built indigenously ▪ Three aircraft carriers Navy envisaged with *INS Vikramaditya* scheduled to join in 2013. Kochi built *Vikrant* class (IAC) to be commissioned by 2015-16 ▪ Twelve P8Is Multi Mission Maritime Aircraft to commence joining by 2013 ▪ Thirty submarines are likely to be added over next few years. ▪ Thirty nine ships are on order currently by IN
Japan	▪ Purchase of a Light Helo carrier DDH 22 ▪ Procurement of 2,900T submarine. ▪ Indigenous production of P-1maritime patrol aircraft and UAVs. ▪ Development of Kawasaki XC2 transport aircraft. ▪ Development of stealth destroyer ▪ BMD systems on Aegis class and additional deployment of Patriot (PAC-3) systems

New Zealand	▪ HMNZS Canterbury class strategic sea lift vessel commissioned June 2007. ▪ Four Inshore minesweeping vessels inducted in 2009. ▪ Two offshore patrol vessels entered service in 2010. ▪ Enhanced Maritime projection and sustainment capability is due between 2015-2020. ▪ ANZAC frigate upgrade is due to be completed between 2015- 2020.
USA	▪ One ***Ford Class,*** aircraft carrier under construction, 2 more planned—to replace oldest of 11 existing older CVNs on one-for-one basis at five-year intervals. ▪ Two *America* class **Amphibious Assault Ships** planned, to replace retiring LHA-1 and ensure total force of 10 (8 LHDs in service, plus these two projected LHAs (USS *America* (LHA-6) under construction, planned (LHA-7) USS Tripoli (LHA-7). ▪ Final *Arleigh Burke* class destroyer (out of the initial purchase order of 62-ships bought over past 20 years) to be commissioned summer 2012, with three more planned subsequently, followed by ten additional Flight III versions beginning in 2016. Three *Zumwalt* class Guided Missile Destroyers under construction, to deliver in 2016-2018— designed as multi-mission ships with a focus on land attack ▪ LCS Littoral Combat Ship—two in service, two under construction for 2012 delivery, 20 more authorized for following five years, toward eventual total of 55, to replace 26 remaining FFG-7 Frigates, and MCM ships. ▪ Ten LPD-17 San Antonio Class (amphibious transport dock) planned—six now in service, four more under construction. ▪ EA-18 Growler Electronic Warfare Aircraft EA-18G, 56 now in service, of total 114 planned as replacements for EA-6Bs ▪ As of October 2011, there were 195 F/A-18E models and 236 F/A-18F models in the U.S. Navy inventory. The F/A-18E/F serves as a replacement for both older model F/A-18 A/C aircraft, as well as for the now retired F-14 Tomcat. The Navy and Marine Corps still possess 96 F/A-18A, 22 F/A-18B, 375 F/A-18C and 132 F/A-18D aircraft operating in service and test roles. ▪ 252 MH-60R, Multi-Mission Helicopter planned. 275 planned MH-60S

Note: The above information has been collated from numerous internet websites.

ABOUT CSCAP

CSCAP is a non-governmental (second track) process for dialogue on security issues in the Asia Pacific. Membership in CSCAP is on an institutional basis and consists of Member Committees. Current membership comprises Australia, Brunei Darussalam, Cambodia, Canada, China, India, Indonesia, Japan, the Democratic People's Republic of Korea, the Republic of Korea, Malaysia, Mongolia, New Zealand, the Philippines, Russia, Singapore, Thailand, Vietnam and the USA.

The functions of CSCAP are as follows:

a. to provide an informal mechanism by which political and security issues can be discussed by scholars, officials, and others in their private capacities;
b. to encourage the participants of such individuals from countries and territories in the Asia Pacific on the basis of the principle of inclusiveness;
c. to organise various working groups to address security issues and challenges facing the region;
d. to provide policy recommendations to various intergovernmental bodies on political-security issues;
e. to convene regional and international meetings and other cooperative activities for the purpose of discussing political-security issues;
f. to establish linkages with institutions and organisations in other parts of the world to exchange information, insights and experiences in the area of regional political-security cooperation; and
g. to produce and disseminate publications relevant to the other purposes of the organisation.

Study Groups are the primary mechanism for CSCAP activity. As of August 2012, the sole CSCAP Study Group which is still active is concerned with Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific. Previous Study Groups concluded recently in June 2012 include: (i) Significance of the Existence of Regional Transnational Crime Hubs to the Governments of the Asia Pacific Region; (ii) Multilateral Security Governance in Northeast Asia/North Pacific; (iii) Naval Enhancement in the Asia Pacific; (iv) Water Resources Security; and (v) Cyber Security.

This memorandum was produced by the CSCAP Study Group on Naval Enhancement in the Asia Pacific and was approved by the out of session CSCAP Steering Committee Meeting via electronic consultation on 9 August 2012.

Further information on CSCAP can be obtained from the CSCAP website at www.cscap.org or by contacting the CSCAP Secretariat:

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CSCAP Memoranda

CSCAP Memoranda are the outcome of the work of Study Groups approved by the Steering Committee and submitted for consideration by the ASEAN Regional Forum and other bodies.

- Memorandum No.20 – Ensuring A Safer Cyber Security Environment
  Author: Study Group on Cyber Security
  Date published: May 2012

- Memorandum No.19 – Reduction and Elimination of Nuclear Weapons
  Author: Study Group on Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific
  Date published: February 2012

- Memorandum No.18 – Implementing the Responsibility to Protect (RtoP)
  Author: Study Group on the Responsibility to Protect (RtoP)
  Date published: September 2011

- Memorandum No.17 – Promoting the Peaceful Use of Nuclear Energy
  Author: Study Group on Countering the Proliferation of Weapons of Mass Destruction in the Asia Pacific
  Date published: June 2011

- Memorandum No.16 – Safety and Security of Offshore Oil and Gas Installations
  Author: Study Group on Safety and Security of Offshore Oil and Gas Installations
  Date published: January 2011

- Memorandum No.15 – The Security Implications of Climate Change
  Author: Study Group on the Security Implications of Climate Change
  Date published: July 2010

- Memorandum No.14 – Guidelines for Managing Trade of Strategic Goods
  Author: Export Controls Experts Group (XCXG)
  Date published: March 2009

- Memorandum No.13 – Guidelines for Maritime Cooperation in Enclosed and Semi-Enclosed Seas and Similar Sea Areas of the Asia Pacific
  Author: Study Group on Facilitating Maritime Security Cooperation in the Asia Pacific
  Date published: June 2008

- Memorandum No.12 – Maritime Knowledge and Awareness: Basic Foundations of Maritime Security
  Author: Study Group on Facilitating Maritime Security Cooperation in the Asia Pacific
  Date published: December 2007

- Memorandum No.11 – Human Trafficking
  Author: Study Group on Human Trafficking
  Date published: June 2007

- Memorandum No.10 – Enhancing Efforts to Address Factors Driving International Terrorism
  Author: Study Group on Enhancing the Effectiveness of the Campaign Against International Terrorism with Specific Reference to the Asia Pacific Region
  Date published: December 2005

- Memorandum No.9 – Trafficking of Firearms in the Asia Pacific Region
  Author: Working Group on Transnational Crime
  Date published: May 2004

- Memorandum No.8 – The Weakest Link? Seaborne Trade and the Maritime Regime in the Asia Pacific
  Author: Working Group on Maritime Cooperation
  Date published: April 2004

- Memorandum No.7 – The Relationship Between Terrorism and Transnational Crime
  Author: Working Group on Transnational Crime
  Date published: July 2003

- Memorandum No.6 – The Practice of the Law of the Sea in the Asia Pacific
  Author: Working Group on Maritime Cooperation
  Date published: December 2002

- Memorandum No.5 – Cooperation for Law and Order at Sea
  Author: Working Group on Maritime Cooperation
  Date published: February 2001

- Memorandum No.4 – Guidelines for Regional Maritime Cooperation
  Author: Working Group on Maritime Cooperation
  Date published: December 1997

- Memorandum No.3 – The Concepts of Comprehensive Security and Cooperative Security
  Author: Working Group on Comprehensive and Cooperative Security
  Date published: December 1995

- Memorandum No.2 – Asia Pacific Confidence and Security Building Measures
  Author: Working Group on Confidence and Security Building Measures
  Date published: June 1995

- Memorandum No.1 – The Security of the Asia Pacific Region
  Author: CSCAP
  Date published: April 1994