

TENTATIVE PROGRAM
SEA LINES OF COMMUNICATION CONFERENCE: CBMs at Sea in the
Asia-Pacific Region - Meeting the Challenges of the 21st Century

DATE & TIME	DAY 1 - TUESDAY, 2 AUGUST 1994 0830-1630
	DAY 2 - WEDNESDAY, 3 AUGUST 1994 0900-1530
VENUE	CONFERENCE ROOM, MALAYSIAN INSTITUTE OF MARITIME AFFAIRS (MIMA) 16 TH FLOOR WISMA SIME DARBY, JALAN RAJA LAUT 50350 KUALA LUMPUR

DAY ONE - TUESDAY, 2 AUGUST 1994

0830-0900	Registration of Participants Welcoming Remarks
0900-0930	Keynote Address YB Dato' Seri Mohd Najib b Tun HJ Abdul Razak
0930-1000	Tea Break
SESSION I:	Global Economic and Security Trends
SESSION CHAIRMAN:	<i>Commodore WSG Bateman (Rtd)</i>
1000-1020	Trends in the Global Economy: An Overview of the Asia-Pacific Region <i>Dr Hadi Soesastro</i>
1020-1040	Redefining Maritime Security Post-Cold War <i>Mr Michael O'Connor</i>
1040-1100	Discussant <i>Dr Zakaria Haji Ahmad, UKM</i>
1100-1145	Discussion
SESSION II:	Law of the Sea Issues: Are we approaching a new maritime legal order?
SESSION CHAIRMAN:	<i>Dr BA Hamzah, Director-General MIMA</i>
1145-1205	1982 Law of the Sea Issues: implications of UNCLOS Ratification on Navigation, Resource Exploitation, Sustainable Development, Environment of Coastal States <i>Prof Dr Choon-ho Park</i>
1205-1215	Discussant <i>Ms Mary George</i>
1215-1300	Discussion
1300-1400	Lunch
SESSION III:	The Economics of Maritime Security
SESSION CHAIRMAN:	<i>Dr Hadi Soesastro</i>
1400-1420	Seaborne Trade and Shipping and its Contribution to Regional Prosperity

1420-1440	<i>Vice Admiral Mitsuo Kanazaki, JMSDF (Rtd)</i> New Maritime Industries of the 21 st Century <i>Captain William M Carpenter</i>
1440-1500	Fishing in the Asia-Pacific Region: The scope for cooperation and potential for conflict <i>Vice Admiral Tun Hwa Ko</i>
1500-1520	Discussants <i>Ms Marina Pok, Cambodia</i> <i>Commodore WSG Bateman (Rtd)</i>
1630	Coffee
2000	Dinner

DAY TWO - WEDNESDAY, 3 AUGUST 1994

SESSION IV: **Naval Trends in the Asia-Pacific Region: Force Modernisation or Arms Race?**

SESSION CHAIRMAN: *Ambassador Leonard Unger* (Former US Ambassador
to Thailand)

0900-0920	Naval Trends in Northeast Asia <i>Rear Admiral Sumihiko Kawamura, JMSDF (Rtd)</i>
0920-0940	Naval Trends in Southeast Asia <i>Mr JN Mak</i>
0940-1000	New Technologies and their impact on the maritime Balance in the Asia-Pacific region <i>Captain Jack McCaffrie, RAN</i>
1000-1015	Discussant <i>Commodore Yuswaji</i>
1015-1030	Light Coffee Break
1030-1230	Discussion
1230-1330	Lunch

SESSION V: **Confidence Building Measures at Sea: the Challenges Ahead**

SESSION CHAIRMAN: *Prof Dr Dalchoong Kim*

1330-1350	Northeast Asia <i>Prof Seo-hang Lee</i>
1350-1400	Discussant <i>Dr John Rothrick</i> (Center for Global Strategic Planning)
1400-1420	Southeast Asia <i>Captain Russ Swinnerton, RAN</i>
1420-1430	Discussant <i>Dr Derek da Cunha</i> (ISEAS, Singapore)
1430-1530	Discussion
1530	Closing Remarks Coffee End of Conference

KEYNOTE ADDRESS BY
YB DATO' SRI MOHD NAJIB TUN RAZAK
AT MIMA CONFERENCE ON CBM
AT SEA IN THE ASIA PACIFIC REGION,
2 AUGUST 1994, KUALA LUMPUR

YANG BERBAHAGIA TAN SRI R.M. ALIAS,
CHAIRMAN OF MIMA BOARD OF DIRECTORS,
THE DIRECTOR GENERAL OF MIMA,
YOUR EXCELLENCIES, MEMBERS OF THE
DIPLOMATIC CORPS,
PARTICIPANTS,
DISTINGUISHED GUESTS, LADIES AND
GENTLEMEN.

ALLOW ME FIRST AND FOREMOST TO TAKE
THIS OPPORTUNITY TO WISH OUR INTERNATIONAL
PARTICIPANTS A WARM WELCOME OR 'SELAMAT
DATANG' TO MALAYSIA. I HOPE YOU WILL HAVE
A PLEASANT AND MEMORABLE STAY HERE IN
KUALA LUMPUR.

I WOULD ALSO LIKE TO TAKE THIS
OPPORTUNITY TO THANK MIMA FOR INVITING ME
TO GIVE THE KEYNOTE ADDRESS TO THIS

IMPORTANT CONFERENCE ON "CONFIDENCE BUILDING MEASURES AT SEA IN THE ASIA PACIFIC REGION". THIS IS CERTAINLY A TIMELY FORUM, GIVEN THE DRAMATIC CHANGES TAKING PLACE IN THE WORLD TODAY.

I WOULD ARGUE THAT, ALTHOUGH THE END OF THE COLD WAR HAS UNLEASHED FORCES, THAT WERE ONCE KEPT IN ABEYANCE, FOR EXAMPLE, THE RESURGENCE OF ETHNIC AND CULTURAL IDENTITIES, WHICH HAVE RESULTED IN UNTOLD MISERIES AND DESTRUCTION IN THE WORLD TODAY, WE SHOULD TAKE THE OPPORTUNITY OF THE CHANGING STRATEGIC ENVIRONMENT TO IMPROVE THE SITUATION. THE RATHER ABRUPT END OF THE SUPERPOWER RIVALRY HAS INDEED BROUGHT OPPORTUNITIES FOR US TO WORK TOWARDS A FAR SAFER STRATEGIC MILIEU.

THE STRATEGIC ENVIRONMENT IN THE ASIA PACIFIC REGION, ESPECIALLY, IN SOUTHEAST ASIA, IS CURRENTLY BENIGN, AND IS PREDICTED TO CONTINUE TO BE SO INTO THE 21st CENTURY. GIVEN SUCH AN ASSESSMENT, IT IS OUR JOB AND DUTY TO ENSURE THAT SUCH PROGNOSTICATIONS WILL, INDEED BE A REALITY.

IN THIS REGARD, THE WHOLE SUBJECT OF CONFIDENCE BUILDING MEASURES IS CRUCIAL, AND MUST BE STUDIED IN GREATER DETAIL. CBM COULD TAKE PLACE ANYWHERE AND YOUR CONFERENCE TODAY ADDRESSES CBM AT SEA, A DIMENSION THAT HAS BECOME EVER MORE IMPORTANT, GIVEN THE CRITICAL LIFE LINE, FOR MOST OF US. DESPITE TECHNOLOGICAL BREAK-THROUGH, THE SEA HAS REMAINED CRUCIAL TO OUR ECONOMIC SURVIVAL.

OUR ECONOMIC WELL-BEING DEPENDS TO A LARGE EXTENT ON THE SEA. VIRTUALLY ALL OF MALAYSIA'S TRADE BY VOLUME, THAT IS 95%, IS BY SEA. IN TERMS OF VALUE, THE FIGURE IS 80%. THIS IS QUITE TYPICAL OF THE REGION. WHAT THIS MEANS IS THAT NATIONS MUST ENSURE THAT THE MARITIME ENVIRONMENT REMAINS TROUBLE-FREE, SO AS TO PREVENT ANY DISRUPTION TO THE FLOW OF COMMERCIAL RELATIONS.

UNLIKE THE CONTINENT OF AFRICA, THE ASIA PACIFIC IS DIVIDED BY SEA. EVEN COUNTRIES, LIKE MALAYSIA, ARE SEPARATED BY LARGE SPAN OF WATER. THERE ARE IMPORTANT STRAITS THAT CRISS-CROSS THE REGION. THE MALACCA STRAITS, TO NAME ONLY ONE, IS ONE OF THE BUSIEST STRAITS IN THE WORLD, IS LOCATED IN THE REGION.

THE MALACCA STRAITS IS ALREADY CONGESTED AND ITS SAFETY IS OF GREAT CONCERN TO NOT ONLY THE LITTORAL STATES, BUT ALSO THE GLOBAL ECONOMIC COMMUNITY. I UNDERSTAND THE STRAITS EXPERIENCE SOME 300 TO 500 SHIP MOVEMENTS A DAY.

AGAINST THIS BACKDROP OF CONCERN OVER ECONOMIC INTERESTS, IT IS CERTAINLY PERTINENT TO DELIBERATE ON THE SUBJECT OF CBM. HOWEVER, I AM OF THE VIEW THAT WE MUST FIRST APPRECIATE THE CIRCUMSTANCES SURROUNDING THE SUBJECT IN QUESTION. ONLY THEN CAN WE BE SUFFICIENTLY INFORMED TO ADDRESS THE ISSUE MORE AUTHORITATIVELY.

AS YOU ARE AWARE, NUMEROUS FACTORS IMPACT UPON THE SAFETY AND SECURITY OF OUR MARITIME INTERESTS, NAMELY TRAFFIC DENSITY IN THE STRAITS OF MALACCA, OVERLAPPING

TERRITORIAL CLAIMS, ILLEGAL FISHING BY FOREIGN FISHERMEN, PIRACY AND SMUGGLING. THESE ISSUES NEED TO BE ADEQUATELY ADDRESSED FOR THEY POSE PROBLEMS IN RELATIONS BETWEEN STATES IN THE REGION, PARTICULARLY IF EXPLOITED BY IRRESPONSIBLE ELEMENTS.

FOR MALAYSIA, THE INCREASING DENSITY OF TRAFFIC PASSING THROUGH THE STRAITS OF MALACCA IS CAUSING IMMENSE ANXIETY. BEING A SMALL NATION WITH LIMITED RESOURCES, WE ARE RATHER ANXIOUS THAT NAVIGATIONAL MISHAPS ARE ON THE INCREASE. WE RECALL VERY VIVIDLY THE ANXIETY CAUSED BY THE COLLISION BETWEEN THE VESSELS NAGASAKI SPIRIT AND OCEAN BLESSING IN NOVEMBER 1992 WHICH DISGORGED 40,000 TONS OF OIL. LET US PRAY THAT WE ARE SPARED OF A CATASTROPHE IN THE FORM OF MUCH MORE SERIOUS SEA COLLISIONS.

THE PROBLEM OF OVERLAPPING TERRITORIAL CLAIMS IS ADMITTEDLY POSING SOME IRRITANTS IN THE GOOD RELATIONS WITH OUR NEIGHBOURS. FORTUNATELY, THE SITUATION IS NOT AS EXPLOSIVE AS MADE OUT BY SOME QUARTERS, ON ACCOUNT OF THE SPIRIT OF NEIGHBOURLINESS EXISTING WITHIN THE REGION. IN SOME OF THE AREAS CLAIMED BY MORE THAN TWO NATIONS, THE MULTINATIONAL NATURE OF THE CLAIM HAS SOMEWHAT DEFUSED THE SITUATION.

MALAYSIA IS ALSO CONCERNED WITH THE ISSUE OF ILLEGAL FISHING BY FOREIGN VESSELS. OVER THE PAST THREE YEARS, AN AVERAGE OF 1,975 FOREIGN VESSELS WERE SIGHTED ILLEGALLY WITHIN OUR WATERS. HOWEVER, ARRESTS MADE WERE LOW I.E. 158 VESSELS IN 1991, 92 (1992) AND 105 (1993).

OUR FISHERMEN ARE ALSO UNDER CONSTANT THREAT OF BEING ROBBED AT SEA. TWENTY-SIX CASES WERE REPORTED LAST YEAR COMPARED WITH 14 CASES IN 1992. BETWEEN JANUARY AND MAY THIS YEAR, 19 CASES HAVE ALREADY BEEN REPORTED, THE HIGHEST NUMBER COMPARED TO THE SAME PERIOD IN PREVIOUS YEARS. HOWEVER, ROBBERY COMMITTED AGAINST AGAINST MERCHANT SHIPS SEEM TO SHOW A DECLINE. IN 1993, ONLY ONE CASE WAS REPORTED COMPARED TO SIX IN THE PREVIOUS YEAR AND FIVE IN 1991.

HAVING OUTLINED THE CURRENT SCENARIO, ALLOW ME NOW TO SHARE MY THOUGHTS ON THE CONCEPT OF CBMs. IT SEEMS TO BE THAT THERE IS A CONSENSUS ON THE IMPORTANCE OF CBM AT A TIME WHEN THERE ARE DRAMATIC CHANGES TAKING PLACE, WHERE ONCE FOES HAVE NOW BECOME FRIENDS. IN

SUCH A SITUATION, THERE IS A NECESSITY TO BEGIN THE PROCESS OF CREATING AND BUILDING CONFIDENCE WITH ONE ANOTHER. I BELIEVE CBMs CAN TAKE PLACE AT TWO INTER-RELATED LEVELS. THE FIRST IS AMONGST INDIVIDUALS, WHETHER INVOLVING LEADERS, OR THE OTHER STRATA OF SOCIETY. THIS IS THE PEOPLE-TO-PEOPLE LEVEL. THAT IS WHY I BELIEVE THE EXCHANGE OF VISITS, OR EVEN CONFERENCES LIKE THIS MORNING, ARE IMPORTANT PLATFORMS FOR THE FORGING OF A BETTER UNDERSTAND OF EACH OTHER.

THE OTHER LEVEL IS INSTITUTIONAL, INVOLVING THE VARIOUS ORGANISATIONS, BE THEY MILITARY OR CIVILIAN. I STRONGLY FEEL THAT IT IS EQUALLY IMPORTANT TO INVOLVE THE MILITARY INTO DISCUSSIONS INVOLVING CBMs. MORE OFTEN THAN NOT, THE MILITARY IS SOMETIMES LEFT OUT IN SUCH DISCUSSIONS.

ALTHOUGH THE MILITARY IS SOMETIMES LABELED AS BEING A CONSERVATIVE INSTITUTION, I BELIEVE THAT THE MILITARY TODAY, MUST NOT BE LEFT OUT IN THE PROCESS OF CBM. IN FACT, THEIR PARTICIPATION IS *SINE QUA NON* TO THE SUCCESS OF THE BUILDING OF CONFIDENCE AMONGST US.

IT MUST BE RECOGNISED THAT TIME IS OF NO CONSEQUENCE TO CBM. WHAT I MEAN BY THIS IS THAT WE SHOULD NOT BE IN SUCH A HURRY TO GET THINGS DONE. CBM IS A PROCESS, AND IT IS A MEAN, AND NOT AN END. OUR GOAL IS TO CREATE A PEACEFUL REGION. WE MUST BE ABLE TO FIRST TALK WITH ONE ANOTHER COMFORTABLY. THE CONFIDENCE OF TALKING MUST FIRST BE BUILT. THIS WILL INDEED REQUIRE TIME. IT IS ONLY AFTER WE HAVE REACHED A CERTAIN DEGREE OF CONFIDENCE WILL WE BE ABLE TO MOVE INTO OTHER AREAS OF COOPERATION.

AT A SIGNIFICANT JUNCTURE OF HISTORY, LIKE WHERE WE ARE NOW, I BELIEVE WE SHOULD BEGIN THE PROCESS OF THE CHANGING OF MIND-SETS. LIKE IT OR NOT, WE ARE ALL THE PRODUCT OF THE COLD WAR. MOST OF US HAVE COME TO LIVE WITH WHAT I WOULD LIKE TO REFER TO AS THE COLD WAR MENTALITY, NAMELY, LOOKING AT THINGS PURELY IN SECURITY TERMS AND NOTHING ELSE. DESPITE THE END OF THE COLD WAR, I NOTICED THAT MANY STILL RETAIN THE MENTALITY, CONSCIOUSLY OR UNCONSCIOUSLY. WE HAVE TO CHANGE THIS.

THE CHANGING OF THE MIND-SET IS NOT EASY, BECAUSE WE HAVE ALREADY MADE THAT AS PART OF OUR THOUGHT-PROCESS, IF NOT OUR PSYCHE. WE SHOULD NOW BEGIN TO LOOK AT THINGS BEYOND SECURITY AND TO EXPLORE MEANS OF ENHANCING OPPORTUNITIES FOR

COOPERATION, RATHER THAN MERELY LOOKING AT POTENTIAL CONFLICT AREAS.

I BELIEVE AT ONE TIME IT WAS FASHIONABLE TO LOOK AT SLOC AS A SECURITY MATTER. TODAY, IT IS VOGUE TO DISCUSS SLOC AS PART OF A WIDER UNDERSTANDING OF THE CONCEPT OF SECURITY, WHICH ALSO ENCOMPASSES NON-MILITARY MATTERS. WE SHOULD LOOK AT SEA-LINES OF COMMUNICATIONS AS BRIDGES FOR FURTHER COOPERATION. SLOC SHOULD ALSO STAND FOR SEA-LINKS OF COOPERATION. POTENTIAL FLASHPOINTS, SHOULD NOW BE CONVERTED TO BE PERCEIVED AS POTENTIAL COOPERATIONS.

THE ECONOMIC DIMENSION OF SECURITY IS BECOMING EVER MORE IMPORTANT. SLOCs MUST BE REGARDED NOT JUST AS SEA-LINES OF COMMUNICATION TO BE DEFENDED IN TIMES OF

COMMUNICATION TO BE DEFENDED IN TIMES OF HOSTILITIES, BUT AS SEA LINES LINKING ALL THE ECONOMIES OF THE ASIA PACIFIC REGION. I BELIEVE IT IS THIS APPROACH THAT WE SHOULD USE TO EXAMINE THE WHOLE QUESTION OF MARITIME SECURITY TODAY AND THE COMING DECADES.

THIS DOES NOT MEAN THAT WE SHOULD NEGLECT THE MILITARY ASPECT OF SEA LINES OF COMMUNICATIONS. ON THE CONTRARY, THERE SHOULD BE SECURED BY ALL THOSE CONCERNED. IN THIS REGARD, WE MUST CONTINUE TO BE VIGILANT AT ALL TIMES, ALBEIT, WITH ONE DIFFERENCE. IT IS MY BELIEF THAT COUNTRIES SHOULD BEGIN COOPERATING WITH ONE ANOTHER TO JOINTLY ENSURE THAT SLOC REMAIN SAFE AND PEACEFUL. IN THIS REGARD THE BUILDING OF CONFIDENCE IS OF UTMOST IMPORTANT. JOINT PATROLLING AND JOINT EXERCISES SHOULD BE ENCOURAGED. SUCH

PATROLLING AND EXERCISES ARE ALREADY TAKING PLACE IN THE REGION. WHAT IS REQUIRED IS THE INTENSIFICATION OF SUCH VENTURES.

IT IS MOST GRATIFYING TO SEE THAT ASIA IS CONSTRUCTIVELY ENGAGED IN BUILDING CONFIDENCE AMONGST REGIONAL STATES. THERE SEEMS TO BE A TACIT RECOGNITION OF ALL STATES THAT THIS IS AN IMPORTANT AND CRUCIAL ELEMENT IN ENSURING THAT THE REGION CONTINUES TO PROSPER AND REMAIN STABLE.

LAST MONTH, THAILAND HOSTED THE FIRST ASEAN REGIONAL FORUM (ARF). TO ME, I SEE THE ARF AS THE BEGINNING OF THE INSTITUTIONALISATION OF CBM IN THE REGION. FOR THE FIRST TIME, ASEAN IS PROVIDING A PLATFORM FOR THE REGION TO DISCUSS REGIONAL SECURITY ISSUES. THE FACT THAT THIS FORUM INCLUDES THE PARTICIPATION OF

THREE GROUPS OF COUNTRIES, SHOWS THAT ASEAN HAS RECOGNISED THE IMPORTANCE OF NOT EXCLUDING ANYONE. THE ARF WAS ATTENDED BY ASEAN MEMBERS, ASEAN DIALOGUE PARTNERS, AND OTHER REGIONAL COUNTRIES, SUCH AS THE INDOCHINESE STATES, CHINA AND RUSSIA. THE ARF, ALTHOUGH WAS BRIEF IN ITS DELIBERATIONS, IS NEVERTHELESS, AN IMPORTANT STEP TOWARDS THE PROCESS OF CONFIDENCE BUILDING MEASURES.

I FEEL THAT WE, IN SOUTHEAST ASIA, ARE MOVING TOWARDS THE RIGHT DIRECTION. THERE SEEMS TO BE A CONSENSUS THAT ASEAN WILL BE THE BASIS OF A UNITED REGION. I AM HAPPY TO SEE THAT VIETNAM WILL SOON JOIN ASEAN, TO BE FOLLOWED BY OTHERS. I CAN STILL RECALL IN THE 1980s, WHEN DISCUSSIONS WERE TAKING PLACE REGARDING THE FORMULA OF 6 + 3 + 1, TOTALING 10 NATIONS OF SOUTHEAST ASIA. MOST

THOUGHT THAT SUCH A PROCESS WILL TAKE A LONG TIME. TODAY, SUCH A FORMULA IS SLOWLY BECOMING A REALITY. WHO WOULD HAVE THOUGHT IN THE MID-1980s, THAT VIETNAM WILL BECOME A MEMBER OF ASEAN IN THE EARLY 1990s ? THIS CERTAINLY AUGURS WELL FOR THE FUTURE OF THE REGION.

AS I HAD MENTIONED BEFORE, CONFIDENCE BUILDING MEASURES IS A LONG PROCESS, WHICH WE HAVE ALREADY BEGUN TO EMBARK. WHAT WE NEED TO DO NOW IS TO SUSTAIN, MAINTAIN, AND ENHANCE CBMs. THIS IS CRUCIAL FOR OUR SURVIVAL, CONTINUED PROGRESS, PEACE AND PROSPERITY.

ON THIS NOTE, IT GIVES ME GREAT PLEASURE TO DECLARE THE "CONFERENCE ON CONFIDENCE BUILDING MEASURES AT SEA IN THE ASIA PACIFIC REGION" OPENED.

**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR**

ASIA PACIFIC IN THE GLOBAL ECONOMY

**By
HADI SOESASTRO
CSIS JAKARTA**

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ASIA PACIFIC IN THE GLOBAL ECONOMY

Hadi Soesastro
CSIS, Jakarta

INTRODUCTION

Asia Pacific is an emerging region. In geographic terms, it is a region comprising countries and economies that are linked together by the Pacific Ocean. However, the emerging Asia Pacific region is not merely a geographic construct. Perhaps, it is a geo-economic region as its emergence has been largely market-driven. As such its boundaries remain open-ended. This may be the most important feature of this region and which distinguishes this region from other regions.

For now, the Asia Pacific region can be defined as encompassing members of the inter-governmental forum, APEC (Asia Pacific Economic Cooperation), namely Australia, Brunei, Canada, China, Chile, Hong Kong, Indonesia, Japan, Korea (South), Malaysia, Mexico, New Zealand, Papua New Guinea, Philippines, Singapore, Taiwan (Chinese Taipei), Thailand, and the United States. It can also cover an even wider region involving members of the non-governmental forum, PECC (Pacific Economic Cooperation Council), which includes all APEC members plus Colombia, Russia and Vietnam. Whichever definition is used, the other important and distinguishing feature of this region is its diverse membership, involving industrialized, newly industrializing, and developing economies.

In the global context, Asia Pacific has become the most dynamic region. During the last five years, from 1989 to 1993, the average annual rate of economic growth of the Asia Pacific region was about 3.5 percent per annum. Excluding the United States and Japan, the annual rate of growth of the rest of the region was 5 percent per annum. These rates are significantly higher than that of the world (2.1 percent per annum) and of the European Union (1.6 percent per annum).

The region's growth performance has been accompanied by increased economic interdependence and market integration. This raises a number of policy issues which in a sense have become important items in the national, regional and international agenda of almost all countries in the Asia Pacific region. Firstly, what would be required to sustain the region's growth and economic dynamism? Secondly, will economic integration and interdependence enhance or impair regional security? Thirdly, should the region form a regional structure of sorts in order to minimize political frictions that could result from increased economic interdependence? There is a fourth question that is being raised with increased frequency, namely whether the Asia Pacific region can play a leadership role in maintaining an open global trading system.

AN OVERVIEW OF THE ASIA PACIFIC REGION

With some exceptions, the Asia Pacific region has been able to maintain its growth momentum since the early 1990s despite the slowing down of world output and trade. This is particularly true for the developing countries in the region. During the period 1989-1993, most East Asian economies achieved a growth rate between 7 and 10 percent per annum. For example, the average annual rates of growth were 9.5 percent in Thailand, 8.6 percent in Malaysia, 8.2 percent in China, 8 percent in Singapore, 6.9 percent in Indonesia and 6.8 percent in Korea.

This raises the question of the region's resilience to global recession. The ability of many countries in the region to maintain double-digit growth in exports is seen to be due to their outward-oriented policies, significant diversification in products and markets, increased intra-regional trade as well as increased intra-regional investment flows. However, in order to maintain their growth momentum a World Bank study suggests that the East Asian economies need to pursue their reform programs vigorously, particularly with regard to state enterprises and the financial sector, as well as to address problems of infrastructural bottlenecks and environmental protection.[1]

Table 1 GDP Growth Rates, 1989 - 1993

Region	1989	1990	1991	1992	1993
Asia Pacific	5.3	3.2	2.7	3.3	3.8
(excl. US & Japan)	5.8	4.5	3.9	4.9	5.8
European Union	3.5	3.0	0.7	1.0	-0.3
World	3.4	2.2	0.7	1.8	2.3

Source: International Monetary Fund, World Economic Outlook (May 1994); Pacific Economic Cooperation Council, Pacific Economic Outlook (various issues).

Export of Asia Pacific economies, excluding the United States and Japan, is projected to grow by about 10 to 11 percent per annum in real terms in 1994 and 1995. These rates are, for example, about 16 to 17 percent for Hong Kong and Indonesia, around 13 to 15 percent for China, Malaysia and Thailand, and between 10 and 12 percent for Singapore and the Philippines [2].

The size of Asia Pacific trade is now as large as that of the EU. Intra-regional trade are also projected to continue to increase. Today, about 70 percent of the region's trade is intra-regional. This is in the same order of magnitude as EU's intra-regional trade. Of interest is the fact that the Asia Pacific region has achieved a degree of trade interdependence and economic integration as high as those among members of the EU without forming a trade bloc.

As shown in table 2, intra-regional trade of Asia Pacific economies ranged from about 50 percent in the case of Chile and Colombia to about 90 percent in the case of Brunei. Even if intra-regional trade continues to grow, it is far from certain whether intra-regional trade can compensate for global trade.

Table 2 Share of Intra-regional Trade
(as percent of total)

	Exports		Imports	
	1970	1992	1970	1992
Asia Pacific	57.0	69.7	62.0	70.4
Australia	61.1	73.1	50.0	66.2
Brunei	99.5	90.6	85.5	72.1
Canada	71.0	87.9	76.1	79.1
Chile	28.6	50.4	46.0	44.4
China	55.3	76.8	51.8	66.9
Hong Kong	61.1	73.0	68.5	85.1
Indonesia	80.5	79.0	66.7	68.4
Japan	62.6	67.8	60.6	64.5
Korea (South)	85.5	71.4	81.8	69.6
Malaysia	68.8	77.4	65.2	79.9
Mexico	66.8	87.1	69.5	81.9
New Zealand	43.5	70.7	51.1	70.9
Peru	50.7	56.3	55.7	59.6
Philippines	89.8	77.6	75.0	72.9
Singapore	59.9	71.9	69.2	74.4
Taiwan	77.0	75.2	81.9	73.6
Thailand	67.7	65.8	64.4	71.8
United States	46.1	59.5	56.7	66.2

Source: Pacific Economic Cooperation Council, Pacific Economic Outlook 1994-1995.

Increased intra-regional trade and investment in the Asia Pacific are a manifestation of market-driven integration which has been promoted through restructuring and economic reform policies that have been adopted by many East Asian economies and the globalization strategy of corporations in the region.

Intra-regional trade in the Asia Pacific is now dominated by trade between East Asia and North America although intra East Asian trade has increased significantly. During the past decade, East Asian trade with North America has increased slightly faster than East Asian intra-regional trade. In fact, East Asian trade with the EU also increased about as fast as the growth of East Asian intra-regional trade. Thus, the increased intra-regional trade in East Asia appears to result from the high and increased rate of growth of East Asian trade in general.

A more detailed examination, which disaggregates trade into export and import trade, shows that East Asia and North America exhibit similar trends and magnitudes in their intra-regional exports. This suggests that both sub-region's reliance on outside markets remain high (60 percent). Intra-regional imports have also increased in East Asia and North America, but the level

was much higher in East Asia than in North America. This shows the greater tendency for East Asia to source its imports from within its own region. It appears that this development has been the result of increased investment links within East Asia.

Indeed, one of the most interesting developments that have taken place in the Asia Pacific region, especially in East Asia, is in the field of foreign direct investment (FDI). Intra-regional FDI flows have increased dramatically over the past ten years or so. For example, the stock of FDI in the five ASEAN countries (excluding Brunei) is estimated to have increased by about 14 percent annually since 1980. The increase of the stock of FDI in China since 1988 was even higher, namely about 25 percent annually. Since 1980 the stock of FDI in developing East Asia might have increased by a total of US\$ 130 billion.

Japan, of course, was the main source of FDI to developing East Asia. Based on balance-of-payments data, the cumulative outward flows of Japanese FDI for the period 1985-1992 amounted to US\$ 220 billion. The main destination of Japanese FDI is still the United States but most of it is in non-manufacturing activities. In contrast, most of Japan's FDI in East Asia is in manufacturing. Thus, of total Japan's manufacturing FDI, East Asian shares are considerable.

Other traditional sources, namely the United States and Europe, continue to be important for the East Asian region. In addition, new sources have also emerged, and they have increased quite rapidly. The stock of FDI of the Asian NIEs (newly industrializing economies) in East Asia, most in the ASEAN countries and China, have increased by about US\$ 40 billion in the past decade. This means that about one-third of the total increase in the stock of FDI in East Asia originated from the Asian NIEs. The other interesting feature that has been observed in the region is that of increased cross-investments. The stock of FDI from developing East Asia in the United States today probably amount to US\$ 10 billion, most of which are of recent vintage. Thus, the FDI picture in the Asia-pacific region is characterized not only by the dramatic rise in volume but also by some shifts and likely even more significant shifts in the future, both in the destination of FDI flows and the changing structure of its sources.

If East Asia can maintain the momentum of growth of intra-regional investments in particular and FDI in general, the region's economic growth and dynamism can be sustained.

FDI flows in the region have been influenced by various push and pull factors. The first wave of FDI flows into developing East Asia in the 1960s and early 1970s was motivated by protected local markets and the first major yen revaluation. It was manifested mainly in joint ventures in textiles and household electrical equipment. This was followed by the second wave in the 1970s that was spurred by the region's bright prospects and the availability of low cost capital. This wave of investments included import substitution projects in basic industries and the creation of American export platforms in consumer electronics and semiconductors. The third wave, involving the relocation of labor intensive manufacturing from Japan and the Asian NIEs to ASEAN, resulted essentially from the appreciation of the yen and several NIEs currencies in the mid 1980s. This major push coincided with a major pull that resulted from the significantly improved investment climate in the ASEAN countries to boost their exports.

There are many scenarios as to the coming, fourth wave of FDI flows into East Asia. One scenario sees a massive foreign investment boom in China with the possibility of significant investment diversions from other destinations, including ASEAN. Another scenario suggests that the fourth wave will be characterized not so much by the shift in destination but by a major change in the origin of FDI flows in the region, namely the rise of so-called "overseas Chinese" capital as manifested in FDI flows from the Chinese economies of Hong Kong and Taiwan. These flows may not be directed only to China but to some significant degree will also be going to the ASEAN countries.

Yet another scenario postulates the fourth wave of FDI flows into the region as one which originates primarily from Japan, resulting from the globalization strategies of Japanese companies that would involve new, cutting-edge technologies, such as fiber optics, where different production activities on the technological ascendancy curve will be undertaken outside Japan. It is likely that Japan will retain production activities around so-called "core" technologies. However, this wave is distinctly different from the relocation of industries following the yen revaluations.

As the ASEAN countries and China continue to upgrade their level of technological capabilities they will be able to participate in such production networks, together with other Asian NIEs. This scenario sees a further consolidation of the East Asian regional production network with Japan at its core and also an elevation of this network to higher technological levels, thus giving support to the "flying geese" paradigm.

It is believed that the globalization strategies of Japanese companies has as their objective the creation of regional sources of competitive advantage that would strengthen their position both in the international marketplace and at home. This suggests that the development and consolidation of regional production networks by Japanese firms are likely to continue. Networking has become the name of the game because firms now operate in a more competitive and uncertain environment. There are a number of possible implications of this trend.

There are views suggesting the emergence of two major production and business networks in the region. One is a Japanese network, and the other a Chinese network, the latter referring to cross-border production and business linkages among "overseas" Chinese capital and mainland China. While the Japanese network can be seen as being based on technology, it is more difficult to define the basis of a Chinese network: is it cultural or particular kinds of financial relations? There are no reasons to predict that, if indeed such networks exist, they are bound to collide with each other. Perhaps, what may emerge are two layers of regional production networks, with that of Japan having a higher technological content.

What about US participation in East Asian production activities? The stock of US investments in East Asia is currently about half the accumulated value of Japan's FDI in East Asia, although a decade ago they were about the same order of magnitude. However, the share of manufacturing in US FDI in the Asia Pacific region has increased. For example, the share of manufacturing in US FDI in Malaysia increase from 17 percent in 1977 to about 60 percent in 1990. This suggests that US FDI also contributes to the emerging new patterns of comparative advantage in the Asia Pacific region, although its involvement is far less intense than that of the

East Asian countries.

It has been suggested that the United States can greatly enhance the international competitiveness of its industries by integrating more deeply its production activities with those of East Asia. However, the increased economic interdependence between the United States and Japan, for instance, is seen by some as a threat to the American economy. In the post-Cold War era the United States seems to be less willing to bear the adjustment costs that are being incurred by East Asian industrialization. Meanwhile, trans-Pacific economic tensions can have significant security implications for the region.

ECONOMIC INTEGRATION, REGIONAL SECURITY AND THE EMERGING REGIONAL ECONOMIC ARCHITECTURE.

The question of whether economic integration and interdependence in the Asia Pacific region enhance or impair regional security remains to be asked because analyses on the links between economic and security have produced inconclusive results.

On the one hand, it can be argued that economic interdependence and integration in the region contribute to economic growth and development of regional countries and to the economic dynamism of the region as a whole. As people's well-being in the region increases the region become more stable; this in turn improves the region's security. This view points to a "virtuous circle" of national economic development, regional economic integration and enhanced security in the Asia Pacific region.

On the other hand, the dynamic changes in comparative advantage that result from increased economic integration could cause political frictions to arise among regional countries, especially when national economies fail to undertake the necessary adjustments domestically. In addition, the greater sensitivity of national economies to external developments could result in heightened competition between increased cross-border economic integration in the region and national political sovereignty that could threaten regional stability and security.

It now appears to be well understood that the uncertainty in the linkage between economic interdependence and security requires a regional response in developing common approaches to "organize" the region. This coincides with the rise of economic regionalism globally. How should countries in the Asia Pacific region respond to this challenge?

The ASEAN countries, for instance, are engaged in an ever growing number of regional economic cooperation arrangements. First and foremost is ASEAN itself. It is widely believed that this economic association is primarily aimed at developing a kind of regional solidarity among neighbors for the purpose of regional peace and stability. Thus, this association is largely political-driven. The founding fathers of ASEAN made it clear, however, that regional economic integration is not the objective of ASEAN.

In 1992 ASEAN leaders began to realize that their economies are rapidly involved in market-driven processes towards regional and international economic integration. Rather than

each country going its own way, they thought that by joining forces they could enhance their collective position and increase the gains from integration in the world economy. In addition, they believe that governments can facilitate this market-driven integration.

This realization led to the decision to form an ASEAN Free Trade Area (AFTA). ASEAN governments also realized that improving and strengthening intra-ASEAN economic cooperation have become imperative for the viability and relevance of ASEAN. It was felt that closer economic cooperation has become more feasible due to the changing nature of the ASEAN economies. The external shocks in the 1980s have led the ASEAN countries to undertake adjustments by adopting outward oriented strategies and unilateral liberalization.

In essence AFTA is primarily aimed at enhancing ASEAN's attractiveness as an investment location and market. It can also be seen as a training ground for the ASEAN members in their efforts to integrate more fully into the world economy. However, AFTA's scope is much more limited than that of other recent regional cooperation initiatives such as NAFTA (North American Free Trade Agreement). Some have even argued that the AFTA scheme is rather archaic in nature and that the 15 year period for its completion is far too long. Recently, ASEAN governments have agreed to seek ways to accelerate AFTA's implementation.

AFTA is but one of a number of initiatives that are currently being promoted by ASEAN governments. Other initiatives are seen as complementary because ASEAN is both too small and too big. On the one hand, ASEAN is considered too big in the sense that despite restructuring of each of the ASEAN economies they are still diverse and at different levels of development and thus, integration among all its members tends to be shallow. Thus, to make economic cooperation meaningful, ASEAN has adopted the so-called "six minus X" principle through which less than all members can undertake an ASEAN cooperation project. An example of this is the development of the SIJORI growth triangle involving Singapore, Johor in Malaysia, and Riau in Indonesia.

On the other hand, ASEAN is too small to be effective in its external economic diplomacy given the uncertainties in the world economy. To increase its effectiveness, ASEAN sees the need to be part of larger groupings in the Asia Pacific region such as APEC (Asia Pacific Economic Cooperation) and EAEC (East Asian Economic Caucus).

The different economic cooperation schemes that ASEAN is engaged in form a kind of concentric circles of cooperation, each of which are to be consistent with the further enhancement of the GATT-based multilateral trading system. As distinct from APEC and the SIJORI scheme, AFTA is a departure from the basic non-discriminatory principle of the GATT, but is sanctioned under Article XXIV of GATT.

Although AFTA is a preferential arrangement among its members, the ASEAN countries realize that AFTA should be outward oriented. The different schemes of ASEAN intra- and extra-regional cooperation should ideally reinforce each other. Indeed, a balance of attention to developing intra- and extra-regional links should be maintained because excessive preoccupation with facilitating intra-regional economic links tends to divert attention away from the important

objective of global trade liberalization. In view of its trade with the rest of the world, ASEAN should seek ways to sustain and enhance its trade and other economic links with all its trading partners.

Each of the different schemes of ASEAN's extra-regional cooperation, APEC and EAEC, is an insurance policy for ASEAN; it is an insurance policy against the uncertain development in the world economy. Indeed, uncertainty appears to be the driving force behind many forms of regional cooperation that are currently being proposed, including ARF (ASEAN Regional Forum) in the politico-security field. A "new regionalism" is emerging in the Asia Pacific region. One important characteristic of this new regionalism, which is clearly spelled out in the politico-security realm, is the principle of inclusiveness, namely the inclusion of the very sources of uncertainty (or potential threat) themselves in the regional arrangement concerned. This characteristic should also be adopted in the economic field as provides the underlying logic for the strategy of concentric circles of cooperation that is being pursued by ASEAN.

The ASEAN region as a whole has seen an upsurge of foreign direct investment (FDI) since the mid-1980s. A large proportion of these investments are export oriented and are due to relocations from Japan and the East Asian NIEs (newly industrializing economies). Japanese investments into ASEAN have increased substantially, primarily due to "endaka", the appreciation of the yen. These investments, particularly in the machinery sectors, have increased ASEAN's integration in the emerging East Asian production network. Therefore it is in ASEAN's interest to maintain its attractiveness to FDI.

Studies have shown that the pattern of intra-ASEAN trade will not be significantly altered by the introduction of AFTA and that ASEAN's trade will continue to be directed to Japan and the East Asian NIEs, North America and Europe. Thus, by necessity AFTA will have to be outward oriented. AFTA can contribute to increasing economic efficiency in the region through the reduction of trade barriers among the regional countries. However, tariff cutting alone will not be sufficient and other impediments to economic transactions must be tackled rather soon.

In addition to ASEAN and AFTA, there is APEC. APEC is still in its infancy as it is less than five years old. It is also not immediately obvious from its name what APEC is supposed to be. When it came into being in November 1989 it was proclaimed as an "informal inter-governmental process" to promote economic cooperation in the Asia Pacific region. APEC is a major experiment in regional institution building involving such diverse countries and economies.

The ASEAN countries have been cautious about the institutionalization of APEC. There was the concern that the vast disparities in income, technology and skill level among the APEC economies could lead to asymmetrical dependence, heightened tension and North-South polarization within APEC. ASEAN's fears of dilution in a wider regional organization and the concern of being dominated and overshadowed by the much larger economies have led to the insistence on the informal arrangements and non-institutionalization of APEC.

Nonetheless, ASEAN does recognize the importance of APEC in ASEAN's international economic and trade diplomacy. Furthermore, even though APEC remains essentially a

consultative forum there is ample room for developing regional economic cooperation activities. Thus, despite the rhetorics, ASEAN is sufficiently pragmatic to accept a gradual institutionalization of APEC. As stated by the Indonesian Foreign Minister, Ali Alatas, APEC should become an organization with a secretariat and a codified set of rules and procedures in a gradual way like ASEAN.

APEC already has a secretariat. The annual ministerial meetings are being prepared by a series of senior officials meetings. In 1993 APEC leaders met for the first time and this year there will also be another APEC leaders meeting. This structure of cooperation is producing initiatives and APEC has a rich agenda. Each year, the host of the ministerial meeting provides leadership. As such it can project its interest and vision of APEC into the process. For instance, Indonesia as the 1994 chair of APEC emphasizes on the need to promote developmental issues, such as human resources development, infrastructure, cooperation among SMEs (small and medium enterprises), that would help raise the level of readiness on the part of the developing members of APEC to engage in a number of regional trade initiatives.

APEC has begun to formulate a non-discriminatory trade liberalization agenda which would focus on, among other things: (a) an enhanced exchange of information about trading patterns; (b) increased transparency of trade and investment policies; (c) reducing uncertainty involved in international transactions; (d) harmonization or mutual recognition of policies, regulations and standards; (e) non-discriminatory lowering of tariffs or barriers to labor and capital movement. This agenda could accelerate the beneficial process of market-driven integration in the Asia-Pacific region.

Is there need for an East Asian caucus in APEC? This is what EAEC is supposed to be. It is a modification of the idea of an East Asian Economic Group (EAEG) which was proposed by Prime Minister Mahathir of Malaysia. ASEAN has agreed to form EAEC but it will not do so without the participation of Japan. Japan has not decided on whether it will join EAEC or not.

From ASEAN's point of view, EAEC is seen as an important insurance policy because even though the Uruguay Round has been completed successfully there remains some uncertainty with regard to US trade policy and the development of NAFTA. The late Okita Saburo argued that an EAEC could help define US relations with the whole of East Asia --like its relations with the European Community-- as relations between equals. Okita clearly stated, however, that an EAEC cannot substitute for but should be a complement to Asia Pacific cooperation which remains to be Japan's priority in the region.

Beyond this, the priority of all Asia Pacific countries should be placed the multilateral, global level. Together the Asia Pacific countries should strengthen the WTO (World Trade Organization). Perhaps, it is the Asia Pacific region that is capable of assuming a leadership role in maintaining an open multilateral trading system. This presupposes that the Asia Pacific region consistently implement the idea of open regionalism.

Footnotes:

- [1] The World Bank, Sustaining Rapid Development (December 1992).
- [2] Pacific Economic Cooperation Conference, Pacific Economic Outlook 1994-1995.

**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR

**REDEFINING MARITIME
SECURITY POST-COLD WAR**

By
MICHAEL O'CONNOR
EXECUTIVE DIRECTOR
AUSTRALIA DEFENCE ASSOCIATION

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INTRODUCTION

Earlier approaches to SLOC security, especially in the context of this series of conferences, were largely defined by Cold War alignments - or an absence of such alignments.¹ In that earlier period - from 1979 to 1990, for example - Japan, South Korea and Taiwan were particularly concerned that the growing Soviet naval power in the Pacific could be directed against the trade routes on which they depended so heavily.

For its part, the United States was conscious not only of its burgeoning seaborne trade with North-east Asia but also the need to supply and reinforce its forces in Japan and South Korea in the event of a collision with the USSR.

The Iran-Iraq war, and especially the so-called Tanker War component of that conflict, focussed attention upon the capacity of trading nations to be drawn into unrelated conflicts by attacks on shipping. The use of mines and light surface craft in that conflict also diverted attention away from a preoccupation with submarine or air attacks upon merchant shipping.

In South-east Asia, attitudes to shipping protection were governed by a recognition that local economies were not yet as dependent upon secure overseas communications as in North-east Asia. Moreover, the non-aligned status of regional countries in the Cold War context coupled with the concept of peace, freedom and neutrality made the question less urgent, perhaps even one to be avoided as unnecessarily complicated.

In the region, great emphasis was placed upon the establishment of a maritime law regimen as well as the enforcement of navigational safety rules in confined waters.

For its part, Australia was slow to recognise its economic dependence upon secure shipping as defence planners and the community only slowly began to accept that Australia's security was dependent upon regional engagement as much as it was on the alliance with the United States².

¹ for examples of this approach, see Malcolm Kennedy & Michael O'Connor *Safety by Sea* 1990, University Press of America, Lanham MD, especially at Section 2.

² see the writer's *Protecting the Ships* Working Paper No 12, Australian Defence Studies Centre, Canberra, 1993.

DEFINING THE END OF THE COLD WAR

The end of the Cold War was not totally unexpected. The evidence of an impending Soviet economic collapse had been apparent to those who were willing to see for some years³. While the USSR was a substantial military power, its war machine lacked depth in the Soviet economy and was no match for the Reagan-inspired rearmament of the early 1980s.

What was really surprising was the speed of the collapse, hastened then in no small measure by the outcome of the 1991 Gulf War in which a large Soviet-armed, trained and organised military machine was comprehensively demolished by the US-led coalition.

The real significance of that defeat was not lost on the Soviet military leadership which actively resisted the Party coup against President Gorbachev in August 1991.

Since then, the withdrawal of Russian (formerly Soviet) forces from long-range global or regional deployments is almost total. Russian war vessels remain tied up in port, many are not maintained, and their crews, often unpaid, have to scavenge even for their rations.

In fact, Russia now faces greater security problems with the former republics of the USSR than it does with the rest of the world.

To that extent, then, the burgeoning merchant shipping of the Western Pacific is secure. How secure is the focus of the rest of this paper.

ASSUMPTIONS

I would like to proceed from two, perhaps three, basic assumptions which do not depend upon various international alignments or relationships.

The first is that unprotected wealth of whatever form will attract predators. That is almost a law of nature upon which mankind has built a structure of civilisation and law to control the predators.

³ see for example the author's own comment 'The Alienation of the Soviet Union' in *Asian Defence Journal* 1/85.

The scale of the wealth is immense. I do not pretend to have up-to-date figures but Annex 'A'⁴, however, offers some detail on the proportions of world trade that flow within the region as well as to and from this part of the world. Just from an Australian perspective, our gross merchandise exports and imports exceeded A\$120 billion (approx US\$85 billion) in 1992/93. Of this total, more than 72 per cent was with Pacific Rim countries⁵.

Given that most of this trade (some 98 per cent) is carried by sea, the volume of shipping involved is immense. In Australia's case, some 15,500 shiploads amounting to 31.5 million tonnes of cargo are involved. Around 75 per cent of exports and 60 per cent of imports are transported to and from Pacific ports while most of the remainder transits the Indian Ocean⁶. Extrapolated from the data in Annex 'A', this suggests that total Asia-Pacific trade by tonnage exceeds 10 billion tonnes annually - and is growing more rapidly than anywhere else in the world. Clearly, this represents a huge defence task.⁷

My second assumption is that, while a regimen of law has been established and is being enforced with varying success, security planners must provide for protection against those who defy the law.

There are perhaps two levels of enforcement. The first is against those who break the law more or less unconsciously or for their convenience, commercial advantage or whatever. The use of unsafe ships or ill-trained crews, the defiance of regulations which are not well enforced, or even the provision of search and rescue facilities apply at this level.

The second level is what might be regarded as organised defiance of the law. This may be by national governments, sub-national political groups, or by criminal

⁴ The Annex is repeated from my paper *Burden Sharing for SLOC Security* presented at the 8th SLOC conference in Bali, January, 1993.

⁵ *1992-93 Foreign Trade Australia: Merchandise Exports and Imports* Australian Bureau of Statistics, Canberra, Cat 5410.0.

⁶ *Year Book Australia 1992* 1992, Australian Bureau of Statistics, Canberra, pp 599-601.

⁷ Additional valuable data are contained in 'The Changing Patterns of Commercial Shipping and Port Concentration in Asia' by Ross Robinson in Ross Babbage and Sam Bateman (eds) *Maritime Change: Issues for Asia* 1993, Allen & Unwin in conjunction with Royal Australian Navy and Australian Defence Industries Ltd, Sydney.

organisations. This defiance is more serious because it is backed by greater resources and demands substantial resources to defeat. As well, the inherent nature of sea control and the likely inability to strike at the source of the threat will demand a disproportionate response by security organisations.

The third assumption is that at least on the high seas (i.e. outside territorial waters or exclusive economic zones) a significant degree of co-operation between national governments is required to extend the rule of law, to protect innocent passage, and to prevent armed collisions between the maritime forces of interested nations. In this context, I also assume that there is a widespread desire for a degree of co-operation that is consistent with perceptions of national security, national sovereignty and, of course, budgetary restraints imposed by politicians and bureaucrats who love peace so long as someone else pays.

THREATS TO MARITIME SECURITY

Paradoxically, the end of the Cold War may have resulted in greater strategic instability in the context of international relations. The Cold War confrontation at least had the effect of moderating conflicts between states if only because rivals tended to seek support from one of the superpowers, thus engaging the other superpower in the interest of the other participant.

That relatively simple and moderating, if tense, relationship no longer applies. Moreover, the reduction in naval deployments by the superpowers in the region has reduced markedly the extent of surveillance and response capacity by maritime forces to incidents at sea.

Conflict between States

Currently, it is possible to identify no fewer than 22 unresolved disputes in the region extending from the Middle East to the Central Pacific. All have resulted in armed conflict in the past or have the manifest ability to do so in the future. The following ten can be said to possess the potential to develop a maritime dimension affecting the security of merchant shipping trading in the Western Pacific:

- the unresolved conflict between South Korea and North Korea;
- the Senkaku Islands dispute between Japan and China;

- the Kuril Islands dispute between Japan and Russia;
- China's claim to Taiwan;
- the endemic tension between China and Vietnam (which recently involved attempts by the PRC to interdict Vietnam-bound shipping);
- Spratley Islands sovereignty (involving China, Taiwan, the Philippines and Vietnam);
- The Paracels group sovereignty (involves China, Taiwan and Vietnam);
- maritime border disputes between Malaysia and Philippines, Malaysia and Indonesia, Malaysia and Singapore;
- border and separatist problems between and within Indonesia and Papua New Guinea; and
- the perennial conflict between India and Pakistan.

As well, there is a range of new links, changes (some very positive) or continuing problems which may have an impact upon a number of those conflicts listed above. These include:

- the loss of the US bases in the Philippines;
- pressure for changes to the Five Power Defence Arrangements (and the growing irrelevance of Britain to the FPDA);
- the development of the ASEAN Forum (and the related Council for Security Co-operation in Asia-Pacific) as the basis of a regional security dialogue in the Western Pacific;
- the power projection capability of the Indian Navy (and the effect of internal unrest in India on the deployment and use of that navy);
- the unpredictable political effects of "Japan-bashing" by those who feel themselves to be disadvantaged by Japanese trade practices;
- an apparent decline in United States power, presence, influence and commitment in the Western Pacific;
- the significance of the Western Pacific Naval Symposium and related joint operational programs;
- the question of guaranteed access to natural resources;
- Law of the Sea conventions and rules, especially as they relate to narrow and archipelagic waters;
- related environmental questions relating to safety of navigation and the transport of dangerous cargoes; and

- the growth of political disputation around issues of human rights (and the related tendency to treat some disfavoured nations as pariah states).

Intra-State Conflict

Internal conflicts arising, for example, from separatist movements can affect the security of international shipping (or even internal sea communications) if one or more parties decides to attack passing vessels. The motives may vary and range from a desire to draw attention to their cause, to attract international intervention or merely to acquire additional resources to buy arms and other supplies.

Some of the regional problems that are evident include:

- internal collapse in Russia and the possibility of a civil war involving the Russian Navy;
- political instability and uneven economic development in China;
- internal unrest in Sri Lanka which has already attracted Indian intervention. (This has also affected the Maldives with their important strategic position vis-a-vis SLOCs);
- the possibility of maritime terrorism similar to the mining campaign by Iran in the Persian Gulf and the Libyans in the Red Sea in recent years; and
- the uncertain future of Hong Kong.

Transnational Crime

The question of piracy has been one which attracted the attention of this series of conferences since 1985 mainly through the efforts of Vice Admiral Ko Tun-hwa. Since then, there has been a substantial upsurge in as well as changes in the nature of piracy in the Western Pacific reflecting, I suggest, two factors.

One is that the withdrawal of US and Soviet naval power from the region has created a power vacuum which other major littoral states have been unable or unwilling to fill. We all know that power abhors a vacuum so that there is a tendency for others to move in.

Secondly, the growing wealth of the region has attracted criminals, both local and transnational. Modern crime organisations are characterised not only by their tight organisation but also by their ability to command immense sums of money as well as a degree of official protection.

Traditional piracy in South-east Asia was not well organised except at the local level. The targets were generally restricted to local vessels with a relatively small proportion of attacks on passing international shipping. The objective was primarily to acquire cash and readily convertible valuables and the perpetrators were mainly local residents.

Closer co-operation between law enforcement authorities as well as the growing sophistication of those authorities seems to have sharply reduced the incidence of local piracy, especially in the important Malacca Straits area.

More worrying is the emergence of more sophisticated operations directed at the capture and sale of ships and their cargoes. The attackers are well-armed and have targeted specific ships. This practice suggests a high degree of intelligence and organisation, supported by the existence of a significant degree of corruption in the maritime industry itself, both at sea and on shore⁸.

Other forms of crime involving shipping include narcotics trafficking, arms smuggling and illegal migration. Of course, narcotics trafficking is not a substantial problem at sea because the volume of this extremely valuable material is generally limited to what can be carried on the person or in a small aircraft. Nevertheless, Australia has had to deal with cases of smuggling of large quantities of narcotics, usually by private yachts, and as the wealth of the region grows, narcotics trafficking can be expected to loom larger as a security problem.

Arms smuggling is significant because of the ability of arms to fuel internal security problems. I would argue that no country in the region has an interest in supporting internal unrest in a neighbour so that there is a vested interest in controlling the unlawful shipment of arms.

Illegal migration is a growing problem which, in Australia's case, is exacerbated by associated problems of quarantine violation. As anyone here who has visited Australia will attest, we have a large, expensive and somewhat intrusive quarantine program which is of incalculable economic importance.

⁸ There is widespread evidence for this view. See particularly Alan Farnham 'Pirates!' in *Fortune* July 15, 1991. Also, BGen Pareda, Deputy Commander of the Philippines Navy, told the author in 1991 of the hijacking of loaded oil tankers from Manila Bay with the ships and cargoes being sold separately in Singapore a few days later. Such operations are hardly the work of the local villagers or the so-called 'sea robbers'.

The question of illegal migration, whether of political or economic refugees, will become more important in the future, especially if China suffers increased internal disorder, whether that be political or economic.

Most countries in the Western Pacific have had to deal with a substantial flow of refugees in recent years. Equally, most have dealt with the refugees in a humane manner which has the unwanted effect of encouraging more to try their luck.

Dealing with refugee flows is largely an internal political and economic question but there are clearly security issues involved. These issues may become more important if refugee movements increase and the immediate response is to deny sanctuary and send the vessels onwards perhaps after some refitting and resupply.

That aspect has already become a matter for concern to Australia if only because we are unable to send them on anywhere else. Unfortunately, in my personal opinion, Australia has adopted a consciously inhospitable attitude in the hope that further attempts will be deterred. I believe the government will be unsuccessful in deterring further attempts. I also believe that Australia should welcome the new arrivals; after all, people who are so self-reliant as to manage the long and difficult passage in small, poorly equipped craft will be assets to the Australian community.

Clearly, however, there is potential for strained relations between regional nations in the way they manage refugee flows just as there are search and rescue aspects to be dealt with.

Collapse of State Power

The end of the Cold War and its aftermath have highlighted the vulnerability of strongly authoritarian states to a collapse of state power in the face of rapid economic change, be that change for the better or worse. That was the case in the former Soviet Union and must be considered to be a possibility in the Peoples' Republic of China, Vietnam and North Korea. The collapse itself may not be as dramatic as it was in the Soviet Union but it may mean that the organs of state power become less responsive to control by the government.

One of the results of that collapse in the USSR was the inability of the state to fund the military to the accustomed degree, either because of a breakdown in the bureaucratic management structures, or because of high inflation coupled with a sharp decline in government revenues. In the case of the armed forces, this can result in a loss

of control from the centre as troops are left without adequate pay, even without food as has happened in Russia.

There are already signs that the recent increase in piracy in the East and South China Seas may be due to unlawful activities by some Chinese military units⁹.

Fortunately, the collapse of the USSR has not yet resulted in any significant security problems in the Western Pacific. However, the outbreak of ethnic wars in some of the former republics of the union, plus reported clashes between Russian and Ukrainian forces, suggest that no one can be sanguine about this part of the world. It would be difficult to imagine South Korea being too complacent about a collapse in the DPRK, for example.

Vulnerability of Small States

A matter of immediate concern mainly to Australia in the South Pacific is the vulnerability of small states such as, for example, Vanuatu or the Solomon Islands to takeover by outsiders. Such states are so small and weak¹⁰ that they are excessively vulnerable in a world where some crime organisations are more powerful than independent countries. At the same time, these nations are sovereign powers, members of the United Nations and can claim the right (if not the ability) to protect their own residents.

As the United States found in Panama and Colombia on a much larger scale, the effective control of independent nations by and in the interest of criminal groups can pose a significant security threat to much larger powers because of the legal protection those groups enjoy as pseudo-states.

Absence or Failure of Co-ordination

The emergence of a wide range of security threats beyond the simple one of armed attack faces the modern nation state not so much with problems of survival but problems which can be difficult and costly to manage both in political and economic terms. Because the threats are so multi-faceted, responses invariably involve a number of national

⁹ see for example 'The Waves Are High in East China Sea' in *Shukan Shincho* Tokyo 25 February 1993, and 'China Accused of Pirate Raids' in *Sunday-Mail* Brisbane 27 March 1994.

¹⁰ Vanuatu's GNP in 1992 was a mere US\$142 million for a population of 175,000. Other South Pacific nations are even smaller.

agencies and an effective response demands a high level of co-ordination, something modern bureaucracies are not always very good at.

Then, as the problems move further off-shore or their source is based in another country, the question of international relationships arise. Then co-ordination and co-operation is even more difficult, at least in conventional terms.

Nevertheless, that co-ordination will be necessary in the absence of an overarching great power presence.

National governments need to adapt to the commercial reality that merchant shipping, regardless of the flag ships are wearing, can rarely be considered a national asset, to be directed and managed as part of government policy. Increasingly commercial organisations structure themselves to avoid or minimise government regulation while still demanding such government services as protection. At the same time, the nations of the Western Pacific are increasingly dependent upon the unhindered movement of shipping to sustain their own economies. Governments will increasingly be forced to respond to the demands of shippers, especially if threats to those ships grow.

CONCLUSION

While the foregoing discussion has considered security mainly in the context of the protection of merchant shipping, other users (or specifically law-breakers) of the sea cannot be ignored. The sea is the principal highway of the Western Pacific region and can be used for many purposes.

Any maritime region is characterised by porous national borders. Land borders are by nature easier to secure because changes of terrain tend to funnel users into well-defined areas which can then be policed.

The sea is relatively easier to use especially with small craft so that the policing task becomes greater. And in a region like South-east Asia which is largely archipelagic with large volumes of local seaborne traffic, concealment is not difficult.

If the preceding outline appears excessively gloomy, I suggest that all the pieces needed to deal with the problems are currently in place. The challenge is to muster and organise the resources available before any threat becomes serious so as to deter or contain the problem.

I suspect that most countries in the Western Pacific have for too long underestimated the importance of the US presence in the region as a force for stability.

With that presence melting away, the challenge to regional powers is to replace it. No one nation can do the job on its own and, as we have seen in too many parts of the world, the United Nations is a toothless tiger if it lacks American support.

Self-reliance or national resilience are nice political slogans but regional co-operation or regional resilience, not only in claimed waters but on the high seas as well, is better.

Annex 'A' to REDEFINING MARITIME SECURITY POST COLD WAR

ASIA-PACIFIC AND WORLD TRADE FLOWS - 1990

	Western Pacific	Australasia	East Asia	North America	Asia Pacific	Western Europe	EEC	Rest of World
Western Pacific	42.71	2.63	40.08	27.55	70.26	18.48	19.93	11.26
Australasia	57.12	7.25	49.87	12.44	69.56	15.83	15.11	14.61
East Asia	41.67	2.30	39.37	28.65	70.32	18.67	16.24	11.02
North America	24.50	2.02	22.48	33.98	58.48	23.34	20.55	18.18
Asia Pacific	35.23	2.38	32.85	30.19	65.43	20.47	17.97	14.10
Western Europe	6.70	0.77	5.93	7.90	14.60	71.66	55.24	13.73
EEC	5.99	0.69	5.29	7.29	13.27	66.19	55.77	20.54
Rest of World	17.68	0.65	17.03	18.55	36.23	35.22	32.29	28.55
World	19.06	1.35	17.71	17.89	36.95	46.79	37.71	16.25

Source:

The figures above are from the Australian National University, International Economic Database, compiled from United Nations, International Monetary Fund and national statistics. The Table is drawn from a submission by Ross Carnant and Peter Drysdale to the Joint Parliamentary Committee on Foreign Affairs, Defence and Trade.



MALAYSIAN INSTITUTE OF MARITIME AFFAIRS

**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR**

**SEABORNE TRADE AND
SHIPPING AND ITS
CONTRIBUTION
TO REGIONAL
PROSPERITY**

**By
MITSUO KANAZAKI
VICE ADMIRAL JMSDF (Ret)
JAPAN**

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Seaborne Trade and Shipping

and its Contribution to Regional Prosperity

by Mitsuo Kanazaki

1 Introduction

Most East Asian countries have been developing their economies at a fast pace even under the circumstances of world wide recession. Not a smaller number of economists predict that the 21st century will be the Asian century. These the fast paced economic developements are being made possible primarily by the industrious efforts of both the governments and the citizens of these countries themselves but we can not overlook the existence of other favorable factors listed below;

(1)The goverments concerned positively promote "a high priority export Policy" recognizing that domestic markets / domestic demand are still weak and premature.

(2)International relationships are favorably maintained and huge markets, capital investement and technologies which are key factors for exporting countries are provided generously by advanced nations.

(3)Despite Cold War tensions, ocean commerce indispensable for exports was protected by the efforts of maritime nations of the Western Camp led by the US.

The following pages will describe the trends of economic development in East Asia, the current statistics of seaborne trade and shipping, then proceed to discuss the contribution to regional prosperity made by seaborne trade and shipping.

2 Trends of Economic Developement in East Asia

(1)After World War II, Japans economy promptly took off from destruction to prosperity triggered by special wartime US-procurement resulting from the Korean Conflict. Assisted by additional fortunate factors such as the developement of high technology, a free trade system and a security umbrella generously provided by the US, Japan continued her economic development in following the Korean War.

Meanwhile, each Asian nation proceeds on its own way seeking for prosperity in accordance with its own respective policies. In the mid 1980s, Japan's yen was revalued upward to correct for

the overvalued dollar decided in a G5 Meeting the so called "Plaza Accord". The yen's appreciation initiated economic development by chains of structural transfers throughout East Asia.

(2) Japan was transformed into big export market for the NIEs, ASEAN(excluding Singapore and Brunei) and Mainland China as a result of strong yen. The NIEs and ASEAN economies also strengthened their international competitiveness vis-a-vis Japan in the the US market and expanded their export shares in the US.

(3) Japan moved some of its industries to NIE nations to compensate for the strong yen and commenced to increase direct investment and technology transfer in the NIEs aggressively. The European countries joined Japan in investing positively in the NIEs accelerating their growth.

(4) In the late 1980s, the US appreciated the NIEs currency to preventing further excess NEI products in the US market. In response to this action, the NIEs started to move some industries to ASEAN nations via technology transfer and direct investment to taking advantage of overseas manufacturing under strong currency circumstances.

Through this process ASEAN countries accepted direct investment and high technology from the NIEs and accelerated following in the footsteps of the NIEs development.

(5) In a short period, the NIEs especially Taiwan and Korea have accumulated wealth and enhanced their domestic market demands by promoting exports and eventually their international trading activities. Both their exports and imports have shown remarkable progress.

(6) Such large interconnected activities which fostered regional prosperity oriented in the mid 1980s are expected to continue and grow from the NIEs and ASEAN countries to Mainland China, Vietnam and other more slowly developing countries.

(7) Recent statistics shown the big three export markets of the ASEAN countries are first the NIEs, then Japan and finally the US. On the other hand, the nations which invested the largest amounts to ASEAN are the NIEs. These two phenomena demonstrate the structural development of the economies and industries of East Asia.

3 Economic, Trade and Shipping statistics of the NIEs, ASEAN and other related countries

- (1) Growth Rates of GNP : Table 1
- (2) GNP, Volume of Trade and their Interrelations : Table 2
- (3) Volume of Trade, Shipping and their Interrelations : Table 3

4 The Contribution of Seaborne Trade and Shipping to Regional Prosperity

(1) On either the global or regional level, the large flows of resources, manufactured goods and other materials between manufacturing and consumer market are indispensable. These flows constitute trade itself. The main factors underpinning trading activities are "capitals", "technology (including human resources)", "information" and "shipping".

(2) As the means of building economic power, it is helpful to encourage export industries aggressively when the countries are in the beginning stage of development with immature domestic markets. After accumulating power via export efforts, it is feasible to upgrade national goals to establish modern advanced economic and industrial structures which never induce unreasonable imbalance of domestic and external demands.

Most Asian nations seem to be adept in achieving favorable objectives.

(3) Shipping is indispensable to support seaborne trade and it appears a much less possibility that shipping activities constrain seaborne trade.

(4) However, the shipping business is undergoing structural recession closely related to the recession in the past years. It is difficult to assert that an excess of shipping, shortage of skilled seamen (which could be potential factors increasing accidents and raising insurance costs), and rising operational costs would never unfavorably influence seaborne trade in the future. Some parts of the shipping industry are likely to be downsized and some rationalization of shipping organizations and fleets on an internationally cooperative basis is also likely.

Nations which have large amounts of national flag ships (implying high ratio of domestic job) can be easily affected by recession. On the other hand, the countries which have

profitable conditions in their domestic labor markets with abundant human resources for the shipping business can specialize in shipping, as Greece used to do, and possess competent seamen's training systems.

(5) Other concerns in the shipping and trade business are the possibility of violations which interfere with or interdict seaborne trade. Violence sometimes comes from incidents not related to maritime affairs such as religious or racial disputes and spreads over the oceans to involve the seaborne trade.

Other causes within the field of maritime issues sometimes create violations such as piracy or rights of exploration of the seabed. In either case, seaborne trade can be easily impeded. It is recommended that maritime nations cautiously prepare for contingencies even if the order within the maritime regime seems to be properly maintained.

(6) One of the most important roles of individual governments and international organizations in peace time is to maintain the stability of domestic political and economic situations and to guarantee the safety of internationally invested capital from foreign countries.

Unfortunately, once unexpected incidents impeding seaborne trade occur, nations

in the region and other nations concerned with the region should form appropriate ad hoc organization for recovering undelivered orders. In order to meet this requirement, the nations concerned are recommended to study and prepare in the peace time prior to an emergency. To maintain the safety of the regional sea is critically important, not only for regional shipping but for shipping all over the world. In this context, the maritime security system we envision should expand its membership of nations from the narrow regional block level to higher level such as the Pacific Rim.

(7) For the purpose of regional maritime security, a quick response system such as in aforementioned ad hoc organization is critically important as a provisional measure.

In addition, another aspect of preparation is needed to build up an allied organization for peace making against invasion in cooperation with the United Nations and other groups of

concerned nations.

(8) Maintaining maritime security brings stable strategic circumstances and, from another view point, stable strategic circumstances contribute to safety of seaborne trade and security of foreign invested capital so that these assets will produce better "causes and effects" mutually and repeatedly. As the ocean has "high seas" separate from land masses, maritime nations are allowed to mobilize all over the world exercising their advantages.

It is recommended to take account of these advantages in organizing and reinforcing an international cooperative system.

5 Conclusion

The contribution and roles of seaborne trade to regional prosperity will be continuously important in the future and following four items should be recognized as important issues.

(1) Regional prosperity closely connected with world prosperity never exists alone.

(2) As global circumstances play out and change the roles of seaborne trade may decline to some extent, but the roles which seaborne trade presently possesses can not be replaced completely by other means. Relating to future changes in economic and industrial structures, the main actors in the international economy must substitute "service trade" and "capital investment" for physical distribution, however service trade and capital investment can not exist without physical distribution. For this reason, seaborne trade will keep its own position permanently as an important factor in the global economy.

(3) Seaborne trade is indispensable for the prosperity and existence of all mankind, and an international cooperative organization for dealing with contingencies must be prepared in the earliest opportunity of peace time.

(4) Prepare the establishment of an international cooperative organization for unexpected incidents and maintaining close communications during the preparation period can be expected to deter or minimize potential disputes and conflicts caused by various reasons. Such activities serve regional prosperity and result in becoming confidence building measures.

Table 1: Growth Rates of GNP

	(%)							
	85	86	87	88	89	90	91	92
KOREA	7.0	12.9	13.0	12.4	6.8	9.3	8.4	
TAIWAN	5.6	12.6	11.9	7.8	7.3	5.0	7.3	
HONGKONG	0.2	11.1	14.5	8.3	2.8	3.0	3.9	
SINGAPORE	-1.6	1.8	9.4	11.1	9.2	8.3	6.7	
INDONESIA	2.6	5.9	4.9	5.8	7.5	7.4		
MALAYSIA	-1.0	1.2	5.2	8.9	8.7	9.8		
THAILAND	3.5	4.9	9.5	13.2	12.0	10.0	8.2	
PHILIPINE	1.1	1.5	4.6	6.4	5.6	2.4	-1.0	
CHINA	12.8	8.1	10.9	11.3	4.3	5.7	7.3	
JAPAN	5.0	2.6	4.1	6.2	4.7	4.8	4.0	1.3
U S A	3.2	2.9	3.1	3.9	2.5	0.8	-1.2	2.1

Data: Collected and Compiled from
Various Sources

Table 2: GNP, Volume of Trade and
their Interrelations

	GNP (A) \$ billion	TRADE (B) \$ billion	(B) / (A)
World			
ASEAN & NIES	866	809	93
ASEAN	293	205	70
NIES	573	604	105
HONGKONG	77	200	260
INDONESIA	111	47	42
KOREA	274	153	56
MALAYSIA	46	71	154
PHILIPINE	46	21	46
SINGAPORE	41	125	305
TAIWAN	180	121	67
THAILAND	89	66	74
AUSTRALIA	288	80	28
CANADA	569	245	43
CHINA	404	136	28
JAPAN	3337	551	17
U S A	5686	931	16

Date: Collected and Compiled from
Various Sources

Table 3: Amount of Trade, Shipping and
their Interrelations.

	AMOUNT OF TRADE (A) \$ bill	MERCHANT MARINE FLEET (B) D/W mill ton	(A) — (B)
World		383 + [311]	
ASEAN & NIES	809	72	
ASEAN	205	21	9. 7
NIES	604	51	11. 8
HONGKONG	200	12 + [26]	16. 7
INDONESIA	47	3	15. 7
KOREA	153	12 + [7]	12. 8
MALAYSIA	71	3	23. 7
PHILIPINE	21	14	1. 5
SINGAPORE	125	18 + [2]	6. 9
TAIWAN	121	9 + [4]	13. 4
THAILAND	66	1	66. 0
AUSTRALIA	80	4	20. 0
CANADA	245	3	81. 7
CHINA	136	21 + [7]	6. 5
JAPAN	551	38 + [52]	14. 5
U S A	931	26 + [40]	35. 8

Data: UNCTAD Review of Maritime Transport 1992
[] : Volume of FOC



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**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
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**NEW MARITIME INDUSTRIES
OF THE 21ST CENTURY**

**By
CAPTAIN WILLIAM M. CARPENTER
SRI INTERNATIONAL - WASHINGTON
USA**

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NEW MARITIME INDUSTRIES OF THE 21st CENTURY

William M. Carpenter

SRI International USA

The trend in the world's merchant marine over the past decade is towards somewhat fewer ships but with a steady overall tonnage, that is, as ships are retired or lost, they are not replaced one-for-one, but the replacements tend to be larger, thus keeping the carrying capacity about the same. There is another trend in the maritime world, which is that ships--and the ports they visit--perform better, thanks to technological advances, to better management and to new ideas. Another trend, applicable especially to the United States and to a few other industrial nations, is a conversion in shipbuilding from the construction of warships to building merchant ships.

This paper focuses primarily on what is happening in the United States: some inference may be drawn about what is to be expected in other nations. Three areas of change are addressed: (1) the post-Cold War conversion in shipbuilding; (2) assistance to maritime operations and research and development (R & D) that will raise the maritime industry to a higher and more efficient level, that is, to do better what the merchant marine is now doing; and (3) new concepts that may open up new kinds of opportunities in the maritime sphere.

Shipbuilding Conversion

The shipbuilding conversion problem is especially acute in the United States. The major naval construction program of the 1980s is coming down to a sharply reduced level. New naval ships will continue to be built, but as a consequence of an overall reduction in the size of the U.S. fleet, the numbers of new hulls needed is far fewer than during the Cold War. In the light of this trend, the Clinton administration has submitted legislation to the U.S. Congress written to pursue two objectives: one, to revitalize the U.S. shipbuilding industry by converting to commercial shipbuilding and to raising its competitive position in the world market; and two, to strengthen the American merchant fleet.¹ The latter objective seeks to ensure that the United States will still be involved in carrying international trade and also to provide, when needed, a reliable sealift for U.S. armed forces responding to future international crises.

Many of the smaller navies around the world--for example, the Royal Malaysian Navy--are engaged in a brisk upgrade of fleet capabilities, but it is not so in the U.S. Navy and the navies of most of the other major powers. Thus the American shipbuilding crisis is a real and present problem, forcing the U.S. government and the American shipbuilding industry and ship operators to act.

In Washington, the White House and the Congress are working on a five-part program, in pursuit of these aims: (1) to work through the Organization of Economic Cooperation and Development (OECD) to persuade foreign countries to stop subsidizing their shipbuilding industries; (2) to engage the U.S. government in marketing efforts for shipbuilding in the U.S.; (3) to provide a U.S. government loan guarantee program (Title XI), under which foreign operators who contract for ships to be built in American yards would be assured that their investments will be protected; (4) to provide a defense conversion/national shipbuilding initiative known as MARITECH (technological innovation); (5) to seek removal--through Coast Guard review--of unnecessary regulations that presently put constraints on U.S. shipbuilding competitiveness in shipbuilding.²

The OECD negotiations for ending subsidies may be difficult, but there are two factors favoring a positive outcome: (1) bills in the U.S. Congress calling for penalties (fines, limited port calls) against ships built with subsidies; (2) the reality that 95 percent of waterborne trade in and out of the U.S. is carried in foreign-flag ships. The other four objectives of the legislation are either already in motion or soon will be. As to technological advances, the high skills developed in the yards building U.S. warships can effectively be applied to commercial shipbuilding. In the Title XI program, as an inducement for foreign operators to build ships in America, US \$150 million in Title XI funding will support \$1.5 billion in shipbuilding in U.S. yards. U.S. labor rates are comparable to rates in the major foreign shipyards.

Maritime Operations

On the maritime operating side, another piece of legislation, the Maritime Security and Trade Act of 1994, will provide funding of US \$1 billion over a ten-year period to support up to 52 liner ships operating in U.S. foreign trade; these ships would also be available for military sealift in national security emergencies.

Modern ships are operated with far fewer crew members than in earlier times. Along with the Coast Guard review of rules that may be generating unnecessary costs for shipbuilders when they comply with existing construction standards, the Coast Guard will also review the rules for crew size. Presently, rules in foreign countries allow fewer crew members than would be required were the ship flying the U.S. flag. Safety must come first, but further automation may allow for equivalent safety with smaller crews. In a recent conversation with an officer of a U.S. super-tanker (211,000 tons) he stated that his ship operates with 23 crew members; at night the bridge watch is one officer and two seaman, with no one in the engine room--the engines are automatically controlled from the bridge.

The U.S. Maritime Administration (MARAD) pursues a research and development (R & D) program with this broad objective:

To improve the productivity, efficiency, competitiveness, safety and environmental responsiveness of the U.S. international marine and domestic water transportation system³

MARAD funds are supplemented by contributions from the shipping industry. MARAD is conducting its R & D activities in these program areas:

The Cargo Handling Technology program addresses advanced materials handling, automation, data processing, and communications technologies to reduce the cargo handling and documentation costs of intermodal shipments between water and other transportation modes. Projects are implemented through the Cargo Handling Cooperative Program--a Cooperative Agreement with Sea-Land, American President Lines, Matson Navigation, and Crowley Maritime.

The Human Factors Research program conducts operations research and analysis to increase the productivity of shipboard personnel by rationalizing manning structures and improving the quality of life through joint labor and management efforts. Projects are developed jointly with U.S. flag ship operating companies, U.S. shipboard union, and the U.S. Coast Guard.

The Marine Environmental Protection program works to prevent or control air, water, and noise pollution for all types of vessels both in port and while underway. Projects are selected jointly with the Environmental Protection Administration and the U.S. Coast Guard.

The Maritime Operational Safety program works for advanced vessel navigation and communication systems, operational procedures, and maintenance policies that enhance maritime safety. Projects are selected jointly with the National Transportation Safety Board and the U.S. Coast Guard.

The Military Sealift Technology program provides for more efficient waterborne transportation of cargoes by commercial and special sealift vessels in times of national emergency. Projects are developed jointly with the Strategic Sealift Program Office and Military Sealift Command.

The National Maritime Enhancement Institutes program uses simulation to better understand the interaction of vessel maneuvering capabilities and channel configuration in harbors, rivers and canals. Projects are implemented jointly with the U.S. Army Corps of Engineers, the Panama Canal Commission, and the St. Lawrence Seaway Development Authority.

The Ship Operations Technology program works for better utilization of ships and equipment to maximize competitiveness in a commercial business environment. Projects are implemented through the Ship Operations Cooperative Program--a Cooperative Agreement with Arco Marine, Energy Transportation, Sea-Land and the NOAA.

The Ship Structures Research program explores and develops new technology related to ship structural concepts, material, reliability and design. Projects are implemented through the Ship

Structure Committee--a cooperative program with the Navy, Military Sealift Command, U.S. Coast Guard, American Bureau of Shipping, and the Canadian Ministries of Defence and Transport. Program activities also include the Society of Naval Architects and Marine Engineers's Hull Structure Committee, and the Marine Board's Committee on Marine Structures.

The Small Business Innovation Research program encourages small businesses to develop innovative solutions to Government and industry problems. Projects address human factors, environmental protection, and improvements in terminal, cargo and ship operations. The Program is administered for the Department by the Volpe National Transportation Systems Center.

The Technology Policy program includes participation in the basic activities of the Marine Board and the Transportation Research Board (TRB). They are used as technical advisors on marine transportation policy issues. Projects are selected in consultation with the Maritime Administrator to best meet MARAD's needs.

The Technology Transfer program develops, collects and disseminates technical information relevant to water transportation using the services of the National Technical Information Service and the TRB's Transportation Research Information Service.

The Waterway Navigation Technology program uses simulation to better understand the interaction of vessel maneuvering capabilities and channel configuration in harbors, rivers, and canals. Projects are implemented jointly with the U.S. Army Corps of Engineers, the Panama Canal Commission, and the St. Lawrence Seaway Development Authority.

The R & D programs do two things: they do their individual parts to improve the efficiency of the U.S. merchant marine, and as a secondary and substantial benefit, they create opportunities for employment in the fields of research, manufacturing and training. For example, as a part of its overall program, MARAD designated four universities as National Maritime Enhancement Institutes:

the University of California at Berkeley does research related to manufacturing and operating ships;

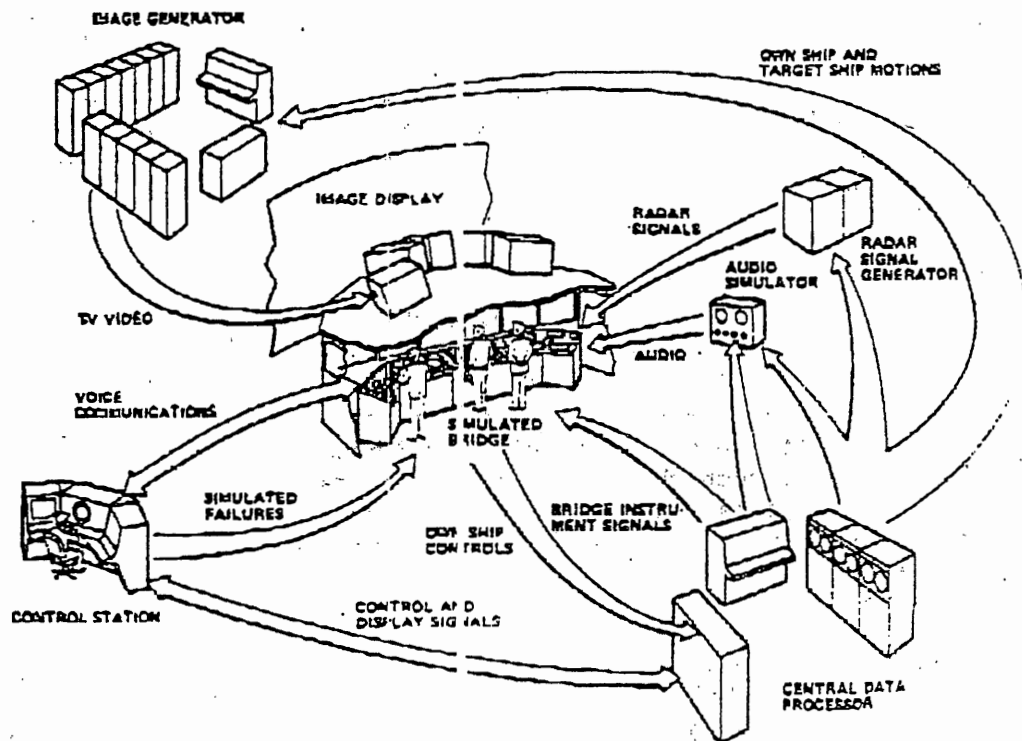
the Louisiana State University conducts transportation systems research;

the Massachusetts Institute of Technology acts as a center for several universities with a broad range of maritime research capabilities;

Memphis State University (with the University of Tennessee and the University of Kentucky) conducts inland waterways studies.

A major electronics installation, the Computer Aided Operations Research Facility (CAORF), has been created with this MARAD R & D program; it is located at the U.S. Merchant Marine Academy at Kings Point, New

York, for training in ship operations, including the important procedures of collision avoidance.⁴



Computer Aided Operations Research Facility (CAORF) at Kings Point, NY

Another R & D project has developed a free-fall lifeboat, with the advantages of greater safety and lower cost. In contrast to the usual use of davits to launch a lifeboat, this new boat slides down a ramp, entering the water quickly and moving to a safer distance away from the ship. If this kind of lifeboat is adopted for general use on thousands of ships at sea, it will generate many jobs to make them. From this and dozens of other research projects underway there will be a great variety of entrepreneurial opportunities to implement the research findings.

New Concepts

It could be said that the maritime world has not been a leader in

innovation. Ships of the 20th century very much resemble seagoing craft of many centuries past: a hull pointed at one end and flat at the other, with compartments below for carrying cargo or people, or both, with masts that once carried sails but now bear radios and radars, with topside structures of various shapes, some with guns, and a propulsion system that evolved from men with oars to sails to steam or some kind of engine. The U.S. Navy's first two major aircraft carriers, LEXINGTON and SARATOGA, were laid down as battle cruisers and were converted to battle cruisers with flat tops. The construction of ships has traditionally been manpower-intensive, and up to the very recent past the industry has been somewhat reluctant to adopt new technology and automation. Change was more often forced than sought after, as for example, the modular construction of hulls forced on the U.S. by the need for hundreds of hulls in World War II.

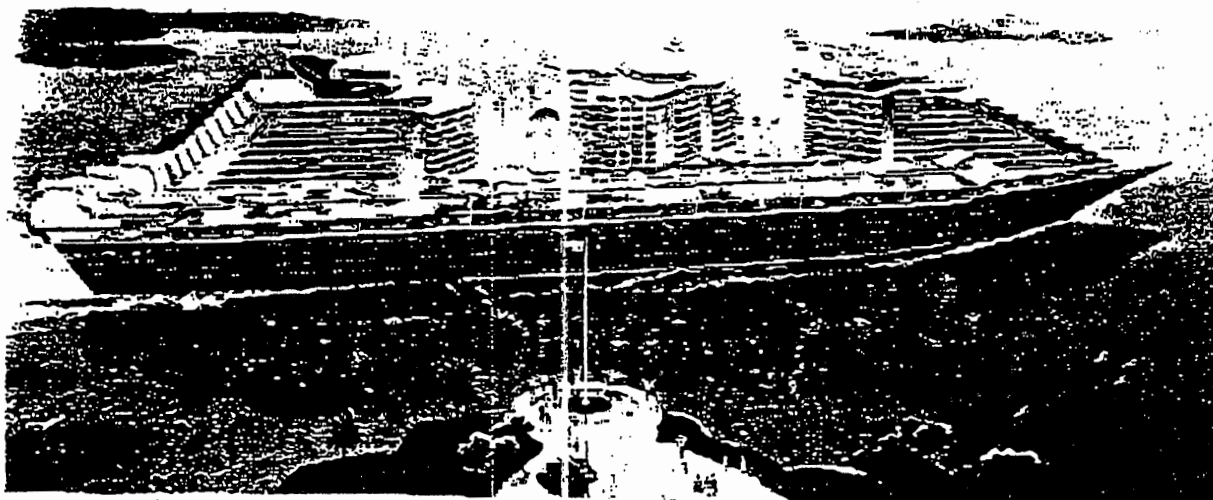
A lucrative and popular form of seagoing that has arisen over the past three decades is the pleasure cruise ship, but even here it was not so much the result of innovative thinking as it was the necessity to find a new role for ocean liners when the passenger airplane took away their clientele. Once begun, the pleasure cruise concept found a ready source of customers; especially popular have been tropic waters, as witness the fleet of such ships plying the waters off East Asia and the Caribbean. The ships have grown larger, accommodating more passengers with a greater variety of things to do on board, but still the ships very much resembled the ocean liners from which they were either converted or copied.

But now comes a true innovation in passenger ships, from the fertile mind of Knut Kloster of Norway. This ship, when built in the United States, or perhaps in Germany or Japan, will be the largest passenger ship ever built, with three and a half times the capacity of the largest passenger ship ever built, displacing 250,000 tons, more than 1200 feet in length and able to carry up to 6000 passengers, with a crew of 1800. The innovation is not just in size but in design. The passengers will not have staterooms in the hull, with perhaps a porthole for a view, but will be in the 2800 staterooms in three hotel-like towers on topside, with picture windows for a panoramic view of all the sights around the ship.

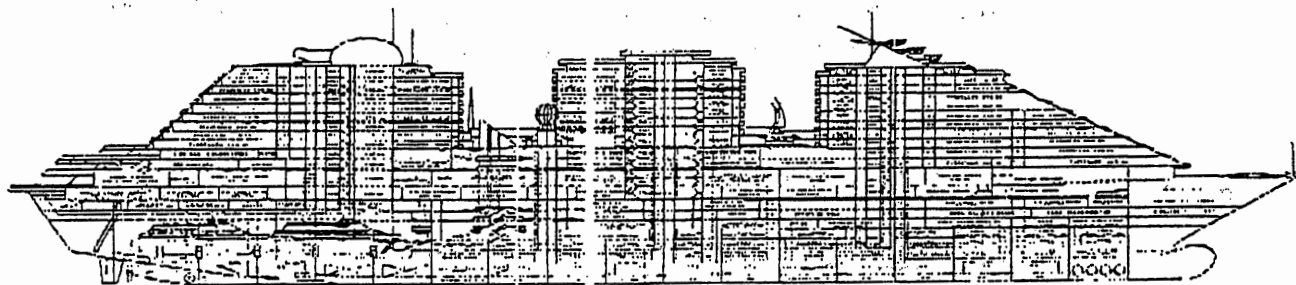
This huge ship, to be named the Phoenix World City, will not be just a pleasure ship. It will be a floating city, as its name implies, a world class conference and business center, where corporate, educational and international meetings may be held, and with the the electronic and computerized facilities that might be found in the most modern installation ashore. Just about every need or desire can be met: international restaurants, night clubs, shops and boutiques, fitness centers, a theater, a library, museum, television broadcasting center, interdenominational worship house and an exhibition complex. For shoregoing, there are four 400-passenger craft docked within the catamaran hull--these craft are ships in themselves, capable of taking passengers to various points within a 50-mile radius from where the ship is anchored.

The planners of the Phoenix World City have studied the potential

Step into the future



Phoenix World City



Phoenix World City: 250,000 gross registered tons / length 1,246.4 ft. / max. beam 252.6 ft. / draft 32.8 ft. / 6,200 passengers / 1,800 staff

Source: World City Corporation, 330 E. 43rd St., New York, NY 10017, USA.

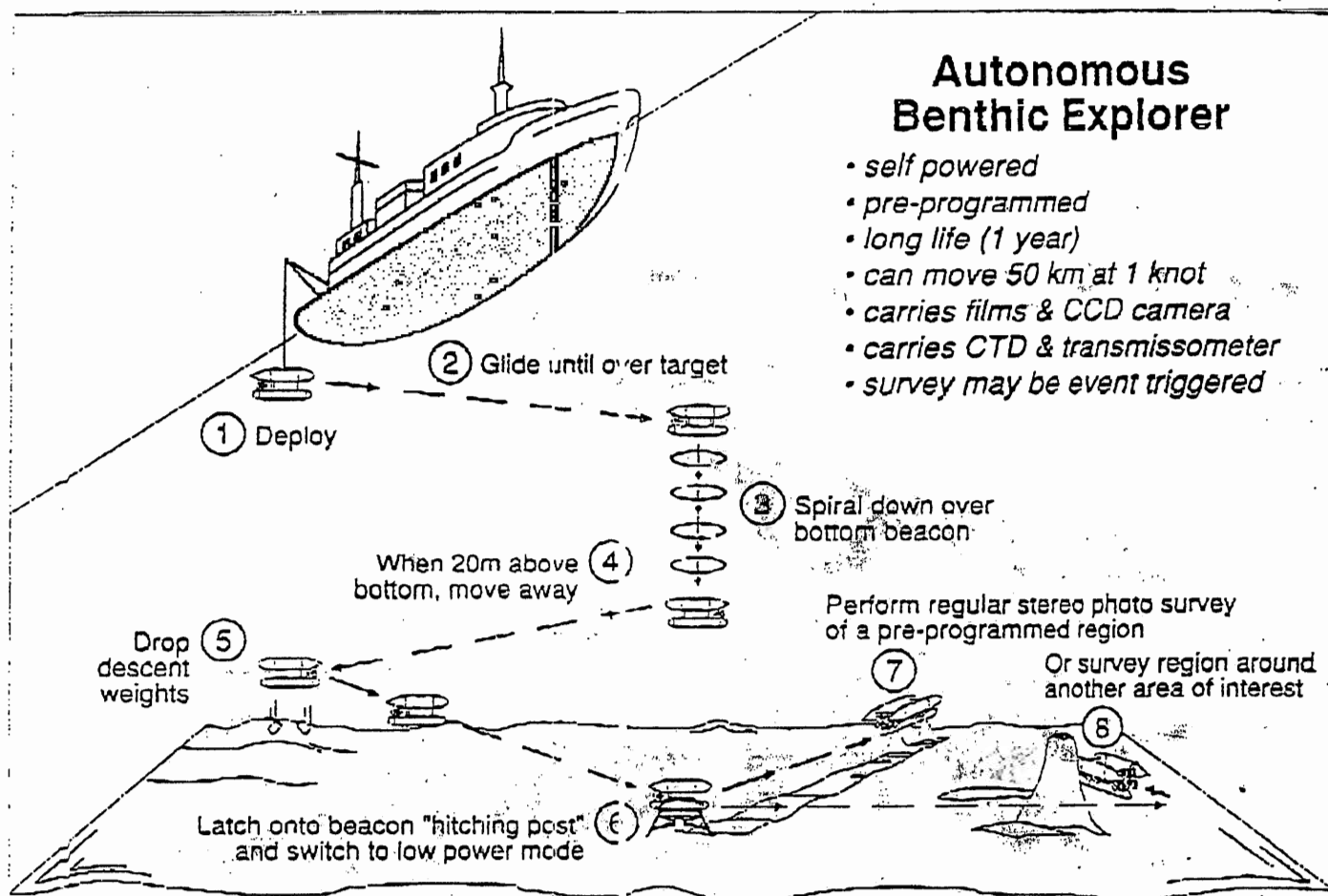
market and conclude that it will be more than subscribed to with passengers. When it is built and if their predictions hold, without doubt there be other such ships. The planners of the ship, the World City Corporation, have created the World Class Corporate 300--a business association whose members are committed to creating a better future. Members are entitled to participate in marketing and other promotional benefits, and to the exclusive use of a premier stateroom in the center hotel tower. Through the Global Business Center there can be teleconferencing and communications that allow the executives to keep in close touch with their home corporations around the world--all this while many other people on board are doing many other things.

Groups of shipyards in the U.S., as well as in Japan and Germany, have joined together to participate in the Phoenix World City project. Over US \$20 million of private U.S. money has been invested in the project. Members of the U.S. Congress have endorsed the project. The opportunities for business and labor are obviously substantial. It appears to be an idea whose time has come.

The MARITECH project was cited above as a part of the plan to revitalize U.S. shipbuilding, using technology. One area of technology not yet much used in shipbuilding is robotics. Mainly invented in the United States, robots were slow to be put into production lines, for example, in the automobile industry, where it took the obvious lesson to be learned from Japanese introduction of robots into their automobile assembly lines to prompt the American to employ them. Similarly, in shipbuilding, there are many opportunities to use robots, for welding, cutting, grinding, painting and perhaps other uses--some are already in use. Labor studies have shown that the typical worker spends only 25 to 30 percent of his time actually performing the main function of his job. The robot never sleeps, never tires, never needs a tea break, but just goes on, 24 hours a day if desired. Coming in the next robot phase are autonomous, intelligent and mobile robots that can make the whole process of shipbuilding faster and cheaper. The question before the industry is not what the robot can do but whether to use it. The MARITECH project is expected to speed the shift to robotics.

The ocean covers two-thirds of the world but we know less about the ocean floor than we know about the planets that spacecraft have photographed at close range. The deeps are a hostile environment, dark and dangerous, but they are loaded with natural resources: oil, gas, minerals, some of which are renewable, in various forms of sea life. One way of avoiding the dangers in exploring the ocean depths is with remotely-operated vehicles (ROVs), but a major disadvantage of ROVs is the necessity of having a dedicated support ship on the surface. The deep water explorer of the future is expected to be the autonomous underwater vehicle (AUV). It is expendable, needs little support from a surface ship and does not have to operate from a tether, which may break or become entangled. One such AUV expected to come into use is the Autonomous Benthic Explorer (ABE), which can perform a scientific survey of the ocean floor over a long period, operating on its own. ⁶ According to

its design specifications the ABE must function unattended for a long period (initially up to six weeks, later up to one year), operate at depths of 6000 meters, navigate acoustically and carry optical imaging sensors, and return on command with all its data. The figure shows a typical mission--with many of these in operation, the mysteries of the ocean deeps can be revealed, probably opening up new kinds of maritime industries in exploiting the knowledge gained.



Autonomous Benthic Explorer

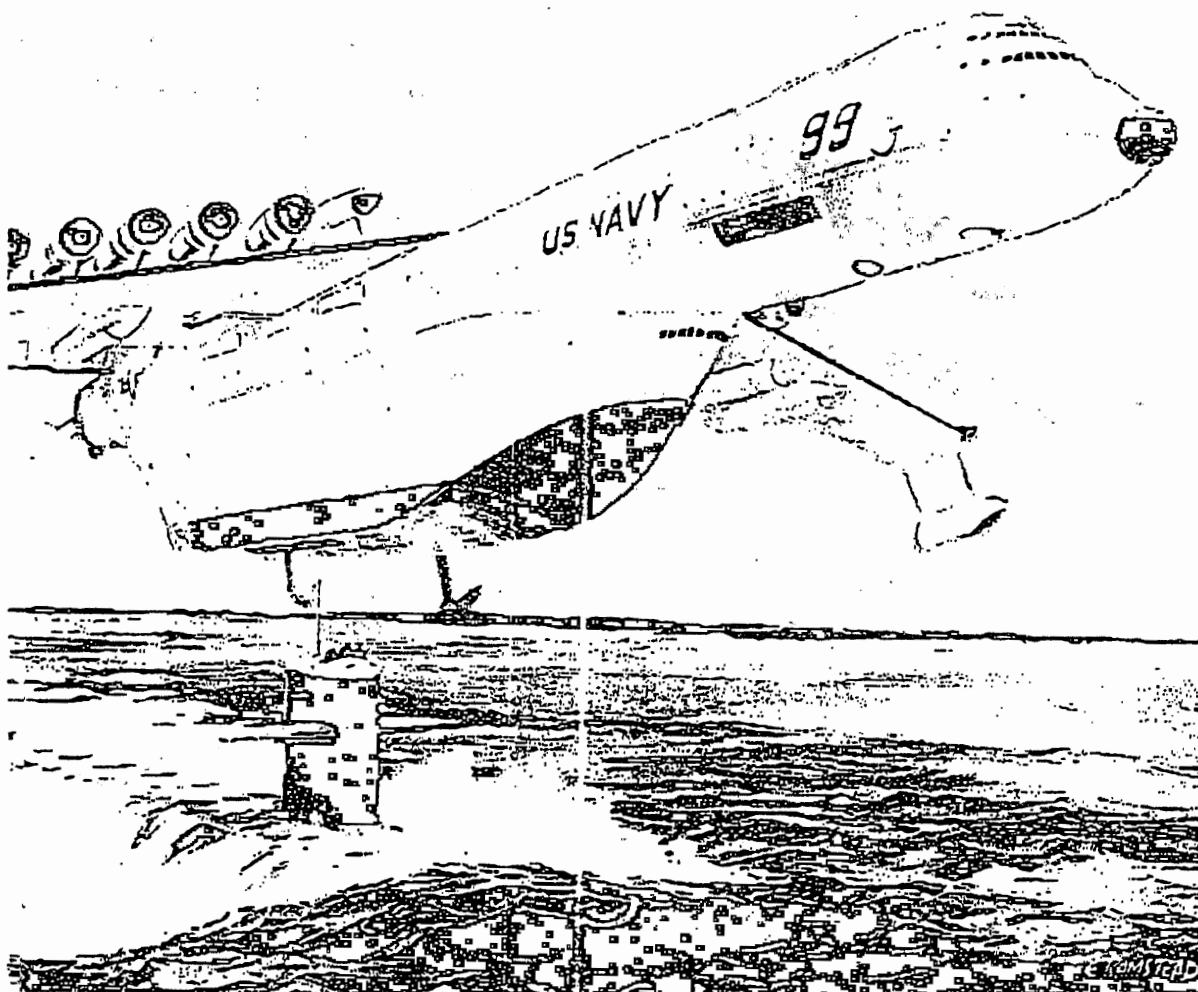
- self powered
- pre-programmed
- long life (1 year)
- can move 50 km at 1 knot
- carries films & CCD camera
- carries CTD & transmissometer
- survey may be event triggered

An ABE mission will consist of four phases: descent, sleep, survey, and ascent.

Source: Unmanned Systems, Spring 1991

Several years ago while the Cold War was still a main concern of American military planners, one analyst proposed a radically new kind of aircraft carrier, one that could depart from the surface of the sea and fly at 40,000 feet. In an article entitled "Elevation of the U.S. Fleet," Captain Richard B. Laning, USN (Ret.) described a "flying ship" that would have ten jet engines on top of a wing fitted on top of a seaplane hull. Taking off from the sea, the craft would fly high out of harm's way, where from its lofty vantage point it could launch missiles and remotely-piloted

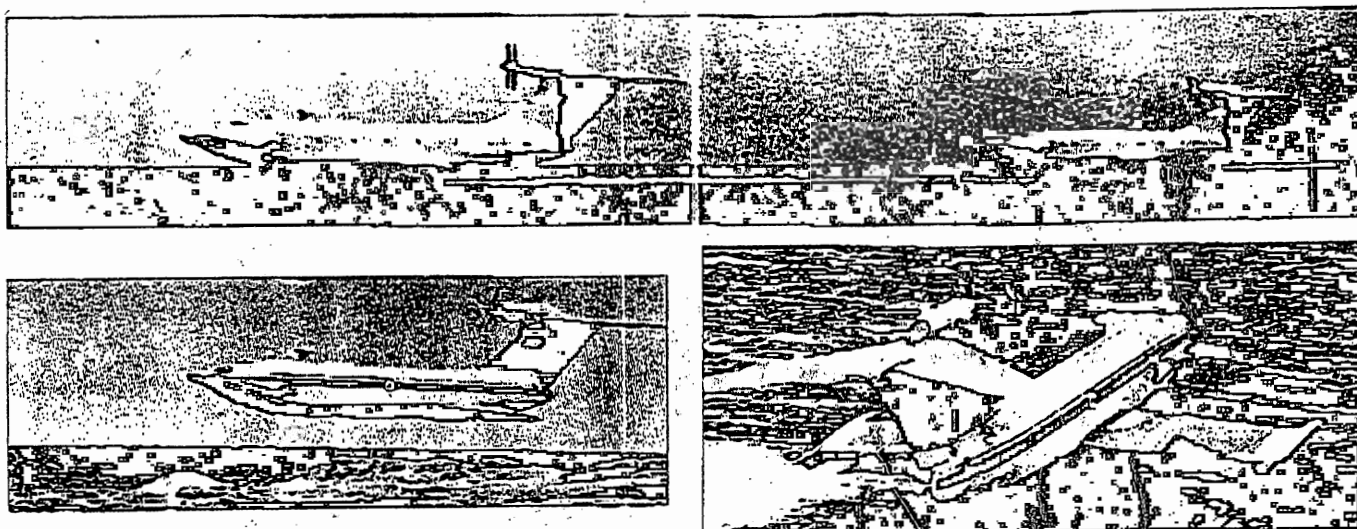
aircraft to sweep the sea below of all enemy surface ships. Then, having cleared the surface of the enemy, the airborne carrier could launch thousands of sonobuoys over a wide area where submarines might be operating, to locate and then attack the submarines or anything below the surface. Technology would win the battle. The U.S. Navy never took up on this idea and now that the Cold War is over, probably will not.



This aircraft carrier definitely wouldn't be a sitting duck; her ten jet engines (atop the wing rather than below) would elevate her at 600 knots to a height of 40,000 feet, out of harm's way, where her two-ton remotely piloted craft, most of them recoverable and reusable, would deploy to launch their variety of warheads, including nuclear.

Source: U.S. Naval Institute Proceedings, Aug. 1982

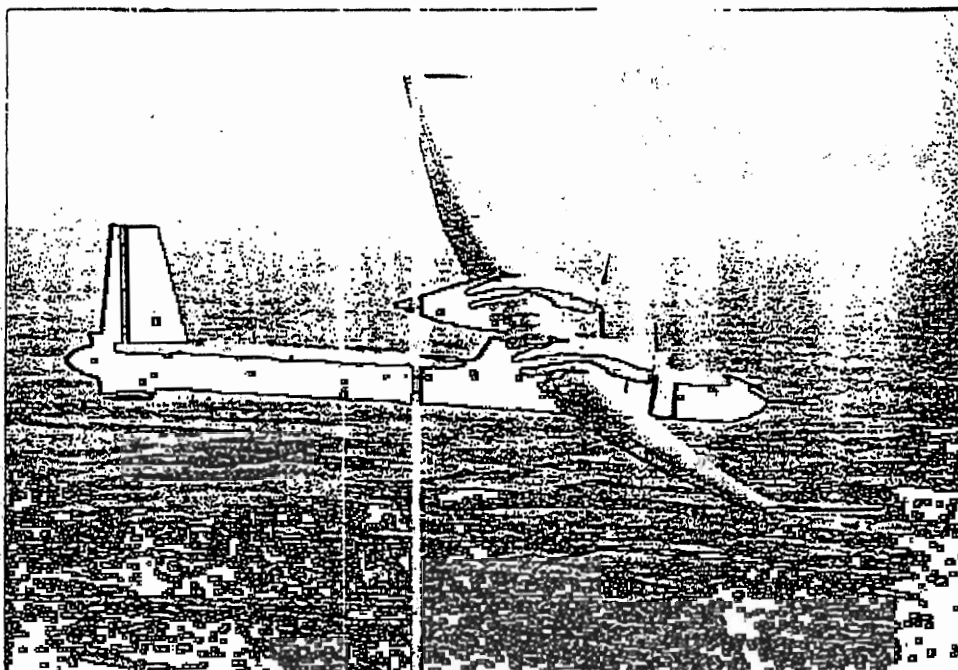
A somewhat similar concept began in the Soviet Union several years ago, and may still be under trial. It has been dubbed the "Caspian Monster," an advanced wing in ground-effect (WIG) craft, an aircraft that takes off from the water, to ride on a cushion of air close to the surface of the water. The payload of this ekranoplan could have a payload of troops for amphibious assault, rapid ground troop transport, antisubmarine or anti-ship missions, carrying up to 300 persons at 400 kmh, to a distance of 2000 km.



Source: Jane's Defence Weekly, 28 Sept. 1991

Finally, this essay concludes with an example of how technology can assist in the vital objective of preserving the world fish catch, by the use of an unmanned autonomous aircraft, the Condor.⁹ U.S. Pacific territorial waters cover nine million square miles. Responsibly controlled, the fish catch from this great expanse can last indefinitely, but uncontrolled, the source of food for many people and the livelihood of the fishermen who search for this food source could be irrevocably damaged. Just in these Pacific waters, the annual fish catch amounts to US \$3 billion and already the harvest is shrinking. The U.S. Coast Guard, with its limited numbers of ships and manned aircraft, cannot effectively cover its area of responsibility. The Condor is a flying robot, able to remain over an assigned area for days and without the limitations of crew fatigue and the much greater cost per hour of manned aircraft. The Condor's sophisticated

long-range photography can identify vessels even as small as fishing craft, thus extending the "eyes" of the Coast Guard, whose mission it is to detect illegal fishing. The Condor has other potentials, such as search and rescue functions. Its key advantage is that it is a true robot, not requiring a pilot somewhere operating it with a "joy stick." It can be programmed to fly for days, on multiple missions, including measuring sea temperature, sea state and fish movements, but can be instantly redirected or recalled. The Condor is one more example of the maritime potential of sophisticated technology.



Condor Carries Payloads in Testing: - The Condor unmanned autonomous aircraft developed by Boeing Military Airplanes, Seattle, WA is seen here during flight testing. During some of its flight testing, the vehicle carried payloads, which were tested for compatibility with the high-altitude, long-endurance (HALE) platform. The 200-foot wing span, all-composite vehicle began flight testing in October 1988. It holds two altitude records for piston-powered aircraft, including the maximum altitude record of 67,028 feet.

Source: Unmanned Systems, Winter 1991

Epilogue

In sum, maritime industries of the 21st century will, as in no other period of the past, apply the ever expanding realm of technology. Perhaps more than in any other industry, because the sea is a cruel master, people will always be important, to ensure that the proper balance is kept with regard to safety, efficiency and profitability in making use of technology's potential

NOTE:

1. Seapower, Dec. 1993, pp. 33-36.
2. Seapower, May 1994, pp. 11-16.
3. Research and Development Program, Status Report, MARAD, January 1994, Washinton, DC, pp. 1-2.
4. Paul B. Mentz, The Maritime Administration's Research and Development Program, MARAD, 1994, p. 9.
5. Unmanned Systems, Winter 1991, pp. 9-11.
6. Unmanned Systems, Spring 1991, pp. 17-23.
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8. Jane's Defence Weekly, 28 Sept. 1991, p. 550.
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ADDENDUM

NEW MARITIME INDUSTRIES OF THE 21st CENTURY

William M. Carpenter

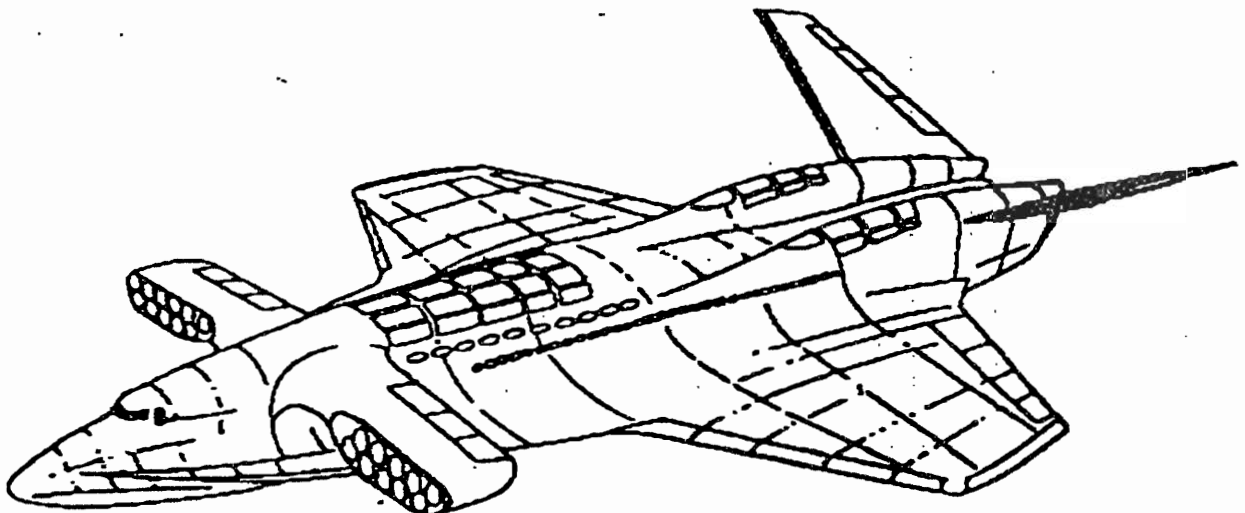
Research on new methods of transport has created a design for a wing-ship. This is a "vessel" able to transport 1500 tons up to distances of 10,000 miles at speeds up to 500 knots. It is a craft that can operate like a ship or an airplane but it achieves its best performance flying just above the ocean's surface.

The wing-ship can carry up to 3000 passengers and 1000 to 1200 tons of cargo. Its range will allow it to fly nearly half-way around the world. With these characteristics, the wing-ship compares favorably to ocean-going ships by being able to carry as much as a small ship but at ten times the speed of the fastest ship. The wing-ship will be 550 feet long, with a wingspread of 340 feet, and weighing 5000 tons, flying at 400 to 500 knots. When in the water the craft displaces about ten feet in draft and can maneuver with screws at speeds up to 20 knots.

As a surface-effect craft it can hover and cross beaches or as a flying airplane it can cross over narrow land barriers, such as at Suez or Panama, thus being able to move from one body of water to another. For limited periods the wing-ship can fly at altitudes up to 20,000 feet, but its best performance is just above the ocean's surface.

Such a craft has great potential for both military and commercial uses. It will enable rapid response to a military crisis, or as a commercial vehicle, can deliver a substantial load over a long distance in a very short time. Its construction would be a boost to both the aviation and maritime industries. The wing-ship has not been built, but research continues. The estimated cost of each wing-ship is US \$400-600 million.

Modern Wingship Concept



**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR**

**FISHERIES OF TAIWAN AND
THE SCOPE FOR COOPERATION
AND POTENTIAL CONFLICTS
WITH NATIONS IN THE
ASIAN-PACIFIC REGIONS**

**By
PROF. AND VICE ADMIRAL TUN KWA KO (RET.)
VICE CHAIRMAN
SOCIETY FOR STRATEGIC STUDIES**

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Fisheries of Taiwan and the scope for Cooperations and Potential
Conflicts with Nations in the Asian-Pacific Regions

By Professor and Vice Admiral Tun Hwa Ko (ret.)

3 August 1994

MIMA, Kuala Lumpur, Malaysia

Paper prepared for SLOC Conference :CBMs at Sea
in the Asia Pacific Region :
Meeting the Challenges of the 21 st. Century

CONTENTS

Abstract

- I. General
- II. The Economic of Fisheries
- III. Total Catches in the World
- IV. Taiwan's Fishing Industries
- V. Cooperations with other countries
- VI. Disputes and Conflicts
- VII. Conclusion

Footnotes and Slides.

Bibliography

Abstract

This paper intends to present an account of Taiwan's fisheries and her cooperation and conflict with her neighboring countries, as well as the disputes in the Taiwan Straits.

As arable land becomes less and less, sea food becomes more and more important in subsidizing the food supplies for mankind, and fisheries thus, in turn, become more and more important in international relations.

This paper also tries to provide some data for further studies pertaining to fisheries in the Asia-Pacific regions. And also echoes the international cooperations for the conservation of this important sea resources.

I. General

It is generally accepted by the natural scientists that seas were probably the original home of all the living animals. Fishes were probably generated from the oceans round about 450,000,000 years ago; because no fossil evidence shew any fish remains before the said period of time.

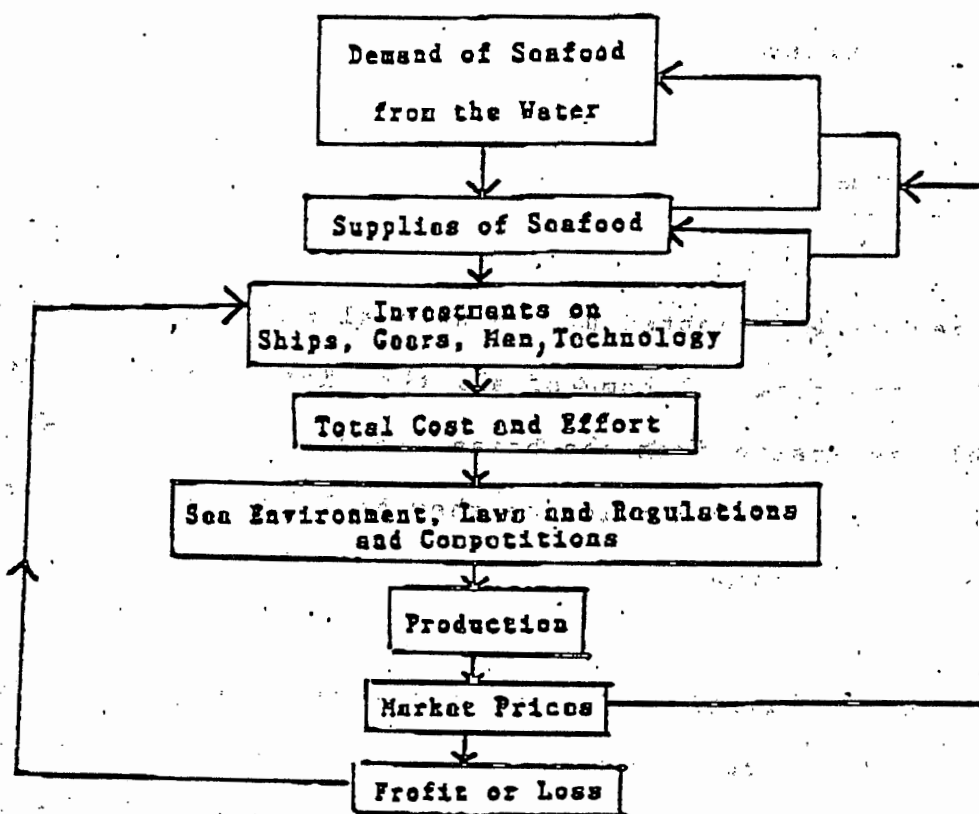
Some sort of primitive jawless fish came first, then evolved into fish with jaw, true teeth, and having gills. Then came the bony fish. And from a certain bonny fish group--the rhipidistan crossopterygil--all land vertebrates (including man) envolved.

This short paper, of course, does not intend to discribe the theory of evolution from fish to man, but, rather to point out the importance of fish and non-fish (such as shellfish) in the water, as food for the mankind, and its importance as one of the factors in International relations.

II . The Economic of Fisheries

The accompanying flow chart shows the logic of the economic of fisheries . Man needs food from the seas or water to subsidize his diet. The early man might have used club or other simple devices to beat and catch the fish in near-by water front (Some people are still doing it for fun). Gradually the modern method of fishing are developed.

Flow Chart on the Economic of Fisheries



which arise from the demand of seafood. To meet the demand, better means of supply are constantly improved. Here comes the investments on ships, fishing gears, men-power, oils for running the ships and machineries, and technology of fishing. Before one, or a group of people, a company or organization invest, they will have to calculate the total cost and effort against the dividend return. That is the cost--profit.

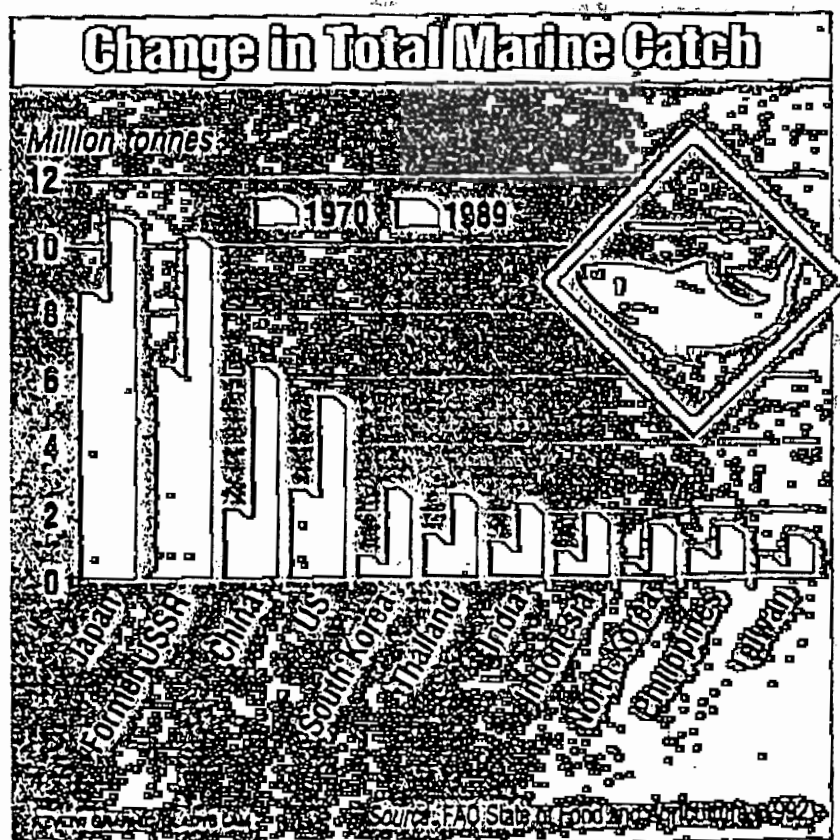
Studies on sea environment, current, wind, tidal stream pertaining to the target fish and the operating of fishing fleet; laws and regulations of the coastal states, as well as the competitions will have to be done.

What might be the estimated production with the projected investment on all the above-mentioned equipments and technology, etc. What will be the prices of fishes and market share etc.? That goes back to re-thinking or re-adjustment of the investments. The market prices are probably determined by the general economic law of supply and demand. This is a simple logic on the economic of fisheries, modified perhaps by the professional experiences in the field.

III. Total Catches in the World

Knowledge of the catch, harvest and consumption of aquatic production throughout the whole world is only incomplete. The United Nations annually tabulates the world catch of fish, crustaceans, mollusks and other aquatic animals, residues, and plants made by commercial fishermen, exploiting freshwater and marine area based on the reports of each nation & private institutes, are only approximate and fragmentary.

It is, however, a fair assumption to say that the annual catch as reported by the Food and Agriculture Organization exceed 140 billion pounds or 63.5 million tonnes (round about 1980s) of which 45.6 million tonnes were in the Asia-Pacific Area as shown by the accompanying Slide (1) for the year 1989.



IV. Taiwan's Fishing Industries

The information contained in this section are based mostly on the "Fisheries Year Book, Taiwan Area" as published by Taiwan Fishery Bureau, Department of Agriculture and Forestry, Provincial Government of Taiwan in June 1993. No other information more up-to-date than that are available.

To make it more comprehensive and readable within the scope of a short paper, the Author could only present the essential data in digest

form, otherwise, the audiences in this conference will be bored by some lengthy and uninteresting statistics. (For those who may want to know more about Taiwan's fishery, please refer to the attached Bibliography at the end of this paper)

The Taiwan fisheries productions are basically divided into two major categories :- Namely, the Farsea Fisheries & the Offshore, according to the fisheries grounds. The overseas landing indicates the landed by powered fishing craft in foreign harbors.

Number of Taiwanese fishermen :-

There are	286,965	Fishermen
Full time	184,768	
Part time	102,197	

<u>Fishermen's household</u>	124,118
Farsea	8,622
Offshore	39,051
Coastal	38,156
Marine Culture	7,205
Inland Water	1,492
Inland Culture	29,592

The total fisheries production reached

1,326,981 M.T.

The total fisheries value (Money value, and rate of Exchange, 1989)

N.T. 83,715,433,000

or U.S.\$ 3.3 Billion (at the rate of 1 U.S.\$=N.T.25.24)

V. Cooperation with other countries

The Government authorities in Taiwan are willing and encouraging the official and private fishing companies to cooperate with as many foreign countries in fisheries as possible, among other cooperations. Foreign countries who have signed treaties of fisheries with fishing companies in Taiwan are known as follows:-

The South Africa, Marshal Islands, Solomon, Tonga and Tovalu and some others. The way for co-operation are mainly done by Taiwan's paying the money for fishing right, and in some cases the use of some portion of the ship's crew from the local sources.

Cook Island, India, Pupua New Guinea, Indonesia, Philippines, Paula, Fuji, Vanatu, Parkistan, Sierra Lion, Brazil, Falkland, Micronesia, Gilbert, Omen, American Somoia, Madagasca, Argentina, Vietnam and Neewey. In total, Taiwan has about some 1035 fishing ships operating in the above-mentioned places.

Ships of some private companies have set up land bases ashore by contracts for processing their catch ashore. They also use transport ships to transport some of their catch to other countries according to the type of fish. A portion would be sent back to Taiwan for sell. According to some heresay, trading of fish on high seas are not an uncommon practic .If there are no facilities for processing ashore, they may use their own tenders, or factories ship. Each company has his own way of operating and make contract with their host countries separately.

VI. Conflicts and Disputes

If economic growth means every wants to improve his material conditions

then some conflicts and disputes might arise. Even if two persons agree to dine together, they might argue on which restaurant to choose. In fisheries, conflicts and disputes are inevitable. With friendly countries, most disputes arise from the interpretation of the contract because of the complexities of laws and regulations. A lack of a centralized authority who could issue an over-all permission for fishing was also a cause for disputes between the Taiwanese fishing ships and local authorities in a certain water. Quite often, some Taiwanese ships were misled into thinking one permit from a certain authority would be O.K. to fish in the water of a certain nation, yet, nevertheless, the consequence usually turn out to be not the case. On page 1, of 9, Saturday, July 1994 of the Chinese language, UNITED DAILY NEWS published in Taipei, there was the following News report: Ten Taiwanese trawlers were captured by Indonesian Naval patrol craft. Each of the ten trawlers is about 300 tons. All together there are about 100 crew on board, including some foreign hired nationals. Position : Long 134° East, Lat. 7° 03' South. The Indonesian Navy opened fire at the Taiwanese ships, 4 crew were reported injured. The probable reasons for the incident could be due to the fact that the Taiwanese trawlers did not have all the permits needed (no paper issued by the Indonesian Agricultural Bureau, carrying only the permit issued by the Indonesian Navy. The author of this paper does not have more news or informations from the UNITED DAILY, and did not check with the Kaohsiung Fishing association. But, the question was, if the Taiwanese trawlers had the Navy permit, why the Indonesian would shoot at them ? The news, however may be inaccurate. On the same date of the said news, the China Daily also reported that, in addition to the ten trawlers, there were more than 20 fishing

boats captured by the Indonesian Navy.

Similar news have been repeatedly reported about the Taiwanese trawlers on other waters by other nations.

Only last month, the Argentinian Navy had killed some Taiwanese fishermen near Falkland Islands.

News on conflicts of Taiwanese fishing ships with neighboring countries are not infrequent. Most of the news arose from legal disputes. But, more clashes happened in Taiwan water came from both sides of Taiwan Straits. The matter were not concerned the fisheries only. They were complicated by political, criminal activities, such as piracy, smuggling drug trafficking "boat people" exodus etc.

The most serious of all is by the fear of spy-intruding, or threaten the security of the coastal defense. The Minister of Defense was quoted to have said that some non-fatal weapons are to be used for the sake of repeling the approaching fishing fleet from the mainland China but not hurting lives on board (/)

The PRC Government recently made protest and warning on the killing of the mainland Chinese fishermen by the artillery fire from the garision troops at off-shore Islands held by the ROC troops (2)

According to the statistics made by Taiwan off-shore defenders:

from January to December 1993, there were 118,000 ship-trips of the Mainland fishing ships approaching too near the Island defenders. These fishing ships sailed across the "mid-line" and kept on sailing towards the defenders who had no way to tell if the approaching ships were engaged in fishing or lunch an invasion. The defenders therefore by some given "rules of engagements" had to fire the warning shots.

This kind of disputes had happened before and will happen again.

Only a few days ago (3), a Taiwanese trawler was chased by Mainland Chinese fishing ship for two hours. The Chinese fishermen threw hand-grenades to the Taiwanese trawlers. The cause of the dispute was not clear. At the current situation between the two divided China, it is not easy to exercise a fair fact-finding and justice. It could be just an ordinary maritime collision case.

VIII. Conclusion

With all these Conflicts and disputes with neighboring countries, and among the Chinese in fisheries and other maritime affairs, there comes a school of thought which advocate 'not to fish' concept. In fisheries, the profit is now only marginal, and the risks are high. This school says " Why fish? ". We only need fishing in our nearby water where fish are also abundant. We don't have to go 'Far sea' fishing. We can buy fish, let them fish. We are having labor shortage. We should use our labor in other more profitable industries. The author would like to argue with this school, because of the following reasons :

(1) Taiwan is only a small island in the western Pacific, with very limited land area (only 13'885 Square miles), with very high mountains in the central part. Taiwan is like an olive in shape. The mountains in the center stretch from north to south almost three-quarter of the land. In the east of Taiwan, there is a narrow strip of land. Only in the foot-hills of the western part there are some plains which are arable. Now due to industrial growth in Taiwan, every inch of land has been used. People have to suck the rocks from the sea to make new artificial land for new industries. So, where to get the food ? High sea belong to mankind where we could fish to feed the people. We must fish.

- (2) Farsea fishing will create no pollutinn problem at home.
- (3) We are already good at some aspects in the fishing technology and do have the capital to invest in fisheried.

So the problems confronting us are how to cooperate with our neighboring countries, including Chinese in the Mainland.

The leadership in the Asia-Pacific regional countries should have the skill and wisdom on how to cooperate.

We may even learn from the fishes !

Fish swim in school. That makes then easier for survival . for couting and breeding, and for finding the food.

Nothing is worse than the shooting.

He who wants to grip the thing he want by force will find it cost him more to get it from the market. Anythig is a commodity and is markatable.

Fish is only a commodity, So don't shoot.

---- The end ----

Footnotes:

- (1) Minister Sun, China Time, Page 1, Sunday, 24 July 1994
- (2) China Time, 11 July 1994, Chinese Language, Taipei.
- (3) China Time, Page 7, 17, July 1994, Chinese Language, Taipei.

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-----Continued on the next page

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Fax. (02) 363 6396
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Executive Yuan, Kaohsiung, Taiwan. Tel:(07) 821 4103.
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Tel: (02)462 2101, 463 3101., Keelung, Taiwan
- (7) To-day Fishery Magazine, Tel: (02) 382 2668, Taipei, Taiwan
- (8) AquaLife, Tel: (02) 431 6843, Keelung, Taiwan
- (9) Fish World, Tel: (02) 303 6255, Taipei, Taiwan
- (10) Chen Chin Chung, The Current Situation and prospect of Farsea
Tuna Fishing, Quaterly, Bank of Taiwan, Vol.45, First Edition
March, 1994.

Note: The Abovementioned Books and Journal are all in Chinese
Language. They seem to be the major writings one can find
in the Central Library, in Taipei.



MALAYSIAN INSTITUTE OF MARITIME AFFAIRS

**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR**

**NAVAL TRENDS IN NORTHEAST
ASIA**

**By
SUMIHIKO KAWAMURA
REAR ADMIRAL, JMSDF (Ret.)
JAPAN**

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The security context of the Asia-Pacific region has dramatically changed following the end of the Cold War. At present, maritime instability has grown in the region since the United States scaled back its presence and Russia reduced its naval strength. The People's Republic of China (PRC) seems to have become aware of the importance of sea power which it neglected until recent years.

The steady expansion of PRC naval strength is creating an atmosphere of tension and insecurity and other regional state are seeking to strengthen their maritime forces in response to concerns over territorial disputes such as those in the Spratley and Paracel Islands. As to Northeast Asia, in the future there will be more maritime forces of consequence on the scene as the PRC, the Republic of Korea (ROK), the Republic of China (Taiwan) and Japan develop their navies.

Should conflict break out in the region, it would inevitably have a maritime dimension including the potential interruption of the sea lines of communication (SLOC) which are vitally important to all countries in the region. Regional state fear the vulnerability of the SLOC, particularly in the South China Sea.

In order to discuss naval trends in Northeast Asia, I would like to explore the status of the navies of the United States, Russia, the PRC, Japan, the ROK, the Democratic People's Republic of Korea (DPRK, North Korea) and Taiwan.

Table 1 summarizes trends in force development from 1984 to 1993, but I would like to give an additional brief survey of the navies of the region. The numbers of forces in this paper are largely, taken from the latest "Jane's Fighting Ships" and "The Military Balance".

U.S.A.

U.S. strategy in Northeast Asia has been and continues to be successful. Another outbreak of war on the Korean Peninsula was deterred and the Soviet union's expansion was contained. At present, U.S. naval forces deployed in Japan include one aircraft carrier, two cruisers, three destroyers, four frigates, five amphibious ships and 310 tactical aircraft.

For the foreseeable future, the U.S. will maintain similar force levels in the region. America's domestic policies may dictate a reduction in the future although this is not anticipated at present.

Russia

Russia is carrying out unilateral force reduction at home and reducing its presence in Southeast Asia by withdrawing some aircraft and ships from Cam Ranh Bay.

The Soviet Pacific Fleet has become the Russian Pacific Fleet which includes a total of 760 ships - 10 cruisers, 30 destroyers, 30 frigates, 75 submarines, 265 auxiliaries and 350 miscellaneous vessels. Russian Pacific Air Force has 1,430 tactical aircraft. These ships and aircraft are formidable forces in being. However, even before the Soviet Union collapsed, the Pacific Fleet had not been able to conduct sufficient necessary crew training or maintenance owing to a lack of supply of parts and insufficient fuel.

At present Russia is requesting a huge amount of economic aid from other countries and making efforts to restore its domestic economy together with carrying out large scale military force reductions and trying to transform state owned industries from weapons arsenals to commercial factories.

However, morale among military personnel and disarray in military command channels caused by the independence of former Soviet republics make it difficult to draw even a grand design for a new Russian military regime.

The capabilities of the Russian Pacific Fleet still appear to far exceed those needed for defense and continue to pose a threat to the interests of neighboring countries. However, judging from the difficulties which Russia is suffering, it is not likely that the Russian Pacific Fleet will resume the status of a major maritime player in the region, at least in the short term.

People's Republic of China (PRC)

There are several concrete examples which demonstrate China's maritime ambitions and which are causing anxiety over Chinese expansionism in neighboring states. The concrete examples are:

- 1) Proclamation of the "Law of Territorial Seas" in 1992, which claims all the disputed Spratlay Islands as sovereign Chinese territory and which is used to justify the deployment of Chinese garrisons in the Spratleys.
- 2) Acquiring 60 SU-27 fighter bombers from Russia and basing these aircraft within striking range of the Spratleys.
- 3) The rumored Chinese attempt to buy the aircraft carrier Varyag from Russia.

The PRC is making efforts to establish a new national economic policy through the introduction of modified market economic principles into socialism along with acquiring resources from the sea as a policy for enhancing national wealth and stability.

What the PRC incorporates into the new economic system is certainly likely to include acquisition of economic profits offshore. Both the deployment of Chinese garrisons and the proclamation of the "Law of Territorial Seas" are likely aimed directly at potential undersea resources in the Spratley Islands.

For the PRC, either the overt or covert use of military power is likely to be indispensable in acquiring such resources. The PRC is required to maintain "sea control" in order to acquire economic profit offshore. Thus, naval power is a must for "sea control".

At the beginning of the PRC, the Navy was the "runner left behind" among Chinese military services. In the 1980s, the PRC Navy broke away from the status of a "coastal navy" toward that of a "blue water navy" with the acquisition of power projection capability.

Since then, the PRC has continued to strengthen its South Seas fleet and makes no secret of its intention to dominate the East and South China Seas.

Japan

In 1981, Japan's Prime Minister Zenko Suzuki formally announced Japan's willingness to share defense roles with the United States. Japan, for its part, pledged to defend its own territory, the seas and skies surrounding Japan and its sea-lanes to a distance of 1,000 miles.

Since that time, Japan began to achieve the capability to carry out these chosen military roles, complementary to those of the United States, particularly in the areas of anti-submarine warfare and air defense. Japan's current defense arsenal includes 60 modern destroyers, 16 submarines and 200 tactical aircraft.

Apart from limitations of force structure which, by design, lacks offensive capability and long reach, Japan's Self-Defense Force (SDF) are in a state of high readiness and could be useful in promoting stability through deterrence and in preventing the spread of conflict in the Asia/Pacific region. But Japan continues to limit its SDF to only "defensive" weapons and to responding only when Japanese territory is under attack.

At the completion of the construction of the current defense program's ships in JFY 1999, it is estimated that Japan's Maritime Self-Defense Force (JMSDF) will consist of 16 submarines, 100 P-3C maritime patrol aircraft, 56 major surface combatants including 4 Aegis DDGs, 5 non-Aegis DDGs, 4 DDHs and 43 destroyers.

Japan need not become a military superpower but almost certainly needs to continue military development as a deterrent or crisis limiting force under the auspices of the U.S.-Japan Security Treaty and/or of the United Nations.

The JMSDF should continue to carry out its defensive missions, complementary to those of the U.S. Navy, particularly in the area of anti-submarine warfare, air defense, anti-mine warfare, and logistic support in addition to peacekeeping operations.

The ROK

The ROK Navy's build up program is impressive and reflects the higher priority being given to the Navy in ROK defense spending. At present, the ROK Navy has 38 major surface combatants including 9 destroyers, 29 frigates and 3 Chang Bogo (Type 209) class submarines in commission. At the completion of the ROK Navy's force build-up program in 2004, the ROK Navy is likely to consist of 12 Chang Bogos class submarines, 17 destroyers, at least 32 frigates in addition to 8 P-3C update III maritime patrol aircraft and 12 Super Navy Lynx MK99 helicopters.

The ROK is likely to continue its efforts for unification of the Korean Peninsula and conciliation of North Korea, however, it is certain that the ROK will never initiate the use of military force against North Korea.

ROK military forces are likely to be a significant force in the case that North Korea commences a desperate attack against the ROK. The ROK's naval build up may imply the acquisition of sea lane defense capability in case of a U.S. withdrawal from the region.

Democratic Peoples Republic of Korea (DPRK, North Korea)

As the threat of theater missiles and nuclear weapons have grown in North Korea, the DPRK Navy has a total of approximately 620 ships including 25 Romeo class submarines, 48 midget submarines, 3 frigates and 39 fast attack craft (missile).

Its forces are aging and have been cut away from support of the DPRK's former suppliers - Russia and the PRC, just as Pyongyang is facing economic distress. Russia established diplomatic relations with the ROK by treaty in November 1992.

In accordance with a memorandum of understanding for military exchanges between Russia and the ROK, three naval ships including a Udaloy class destroyer paid a friendship visit to Pusan in August 1993, and two ROK naval ships visited Vladivostok in return the next month.

The PRC is making every effort to build up its own market economy under socialism and established diplomatic relations with the ROK in August 1992. The PRC then imposed a new more expensive "market rate" on North Korea's imported, oil, replacing the former "friendship rate" for settlement.

North Korea has been left almost isolated since the ROK's diplomatic normalization with the PRC and Russia in 1992 and North Korean economic growth has been declining since 1990. In the foreword of Jane's Fighting Ships, 1994-95 Captain Shape, RN, the editor stated that the strength of the North Korean Navy remains its capability to carry out clandestine inshore operations, particularly against South Korea, with midget submarines and low profile attack craft.

The Republic of China (ROC, Taiwan)

Taiwan promotes expending relations with neighboring states economically while maintaining friendly relations with the U.S. As for relations with the PRC, Taiwan regards the PRC as its largest threat. At present, Taiwan's current naval arsenal includes four submarines, 35 major surface combatants, 22 destroyers and 13 frigates. Its air force possesses 420 fighters. Taiwan also is making efforts to modernize and build up its military capability focused on naval and air forces to expand its defense capabilities.

In order to cope with repeated Chinese submarine incursions, the Taiwanese Navy has placed anti-submarine warfare capability as a top priority. In 2004, when the Kwang Hue project I-III, which is Taiwan's impressive naval development program, conceived in the belief a significant threat from the sea exists, is completed, Taiwan's Navy will have 10 submarines and 40 major surface combatants including eight Oliver H. Perry class frigates, 16 French Lafayette class frigates, and at least four U.S. Knox class frigates.

The numbers of minehunters and logistic support ships will also be steadily increased. It is not impossible that Taiwan and the PRC will agree with regard to undersea resources in the neighboring seas owing to common interests, thereby strengthening their mutually dependent relationship in the economic field.

CONCLUSION

It is not totally accurate to say that there is an ongoing arms race in Northeast Asia. However, it is evident that almost every state in the region is developing and modernizing its naval forces over the last several years and these trends of naval development are likely to continue for sometime to come.

Recent naval trends predominant in the Pacific and Asia region can be summarized as follows:

- a) The PRC is expanding maritime capability and it building a "blue water" navy while persistently pursuing the maritime interests.
- b) There are counterbalancing naval developments by states neighboring the PRC.
- c) There are ongoing naval developments for the protection of littoral waters and EEZ surveillance/search and rescue coordination efforts.
- d) There are naval developments relevant to the growing North Korean threats of nuclear weapons and theater missile development.

These trends appear to be caused by the following:

- 1) In order to acquire maritime resources in the South and East China Seas, the PRC began to show its intention to fill the potential vacuum which would be left if U.S. presence is significantly reduced in the future.
- 2) The regional states have accumulated enough economic strength so that they can now afford to develop their own military forces.
- 3) The regional states are beginning to show their interest in obtaining Western technology through acquired weapon systems.
- 4) Regional states are taking advantage of a buyers' market in Russia.

- 5) The more maritime interests to be protected as nations increase in national power, the more danger there is of discord among countries over respective national interests.

As a general rule, military development invites instability in a region. In other words, such development tips the military balance or poses threats to adversaries or to neighboring countries. Even defensive weapons systems can constitute a threat to others.

In short, any country has a tendency to perceive that its own military capability neither creates a threat nor invites instability in the region. Northeast Asian countries seem not to be aware that they are expanding their military forces and it is doubtful if development can be called as arms race.

For the foreseeable future, the naval development programs in Northeast Asia can hardly destabilize the strategic environment in the region so long as the United States remains in the region as a major strategic player. Deterrence provided by the United States will remain indispensable and critically important to the stability of the region. Even more than during the Cold War, U.S. naval presence is recognized as vital and welcome by almost all states concerned. No other navy can assume that U.S. role,

Therefore, it is important to establish concrete measures to ensure the continuation of U.S. naval presence and to enhance the protective umbrella of the U.S. Navy in the region. The ASEAN countries have made significant contributions toward enhancement of U.S. naval presence:

- 1) In 1990 Singapore provided U.S. Seventh Fleet with ship repair access, and two year later Singapore agreed to the stationing of 200 personnel of U.S. Seventh Fleet logistic support command.
- 2) In 1992, Malaysia approved U.S. access to a Malaysian private shipyard.
- 3) Indonesia is also preparing to offer its naval shipyard for U.S. naval ship repair access.

It is certain that these actions by ASEAN countries will ease the disadvantages caused by the U.S. Navy's withdrawal from Subic Bay and will facilitate activities of the U.S. Navy as a major strategic player in the Pacific and Asia region through bilateral security arrangements with respective regional countries.

I would like to emphasize the significance of international conference such as this type of meeting in terms of promoting mutual understanding and the establishment of CBMs among the nations concerned.

NAVAL TRENDS IN NORTHEAST ASIA (1984~1993)

Table 1

Military Balance (1993-94)
(IISS)

	Personnel /		Total Displacement of Combatants (tons) ♠	Submarines		Primary Surface Combatants	Shipborne Helicopter	Amphibious/Landing Capability		Rate of Fleet Support Ship ★		Mine Warfare Ships									
	Number of personnel ♠	Rate of Sea Duty ♠						Personnel ♠	Main Tank												
PRC	274	202	16	26	273	245	104	45	(12)	36	56	0	7	6,050	6,050	366	343	0.11	0.63	23	126
JAPAN	32	32	54	52	242	259	14	14	(9)	63	62	28	28	1,000	1,000	45	45	0.03	0.06	47	40
ROK	29	35	25	30	54.5	73	0	1	(1)	19	37	2	9	2,050	1,750	164	140	0	0.03	9	11
DPRK (NORTH KOREA)	33.5	45	30	23	38.1	48.8	6	6	(-)	8	13	0	0	0	0	0	0	0	0	40	23
ROC (TAIWAN)	38	30	34	44	103	116	2	4	(2)	32	33	10	22	5,200	4,400	420	354	0		8	15

() : numbers of ships commissioned since 1984

— : 1984 figures

- ◆ : personnel in thousands
- ◆ : % of personnel on sea duty
- ◆ : displacement in thousands of tons
- ◆ : number of personnel who can be accommodated
- ★ : % of support ships in relation to total number of ships (0.2 or above is regarded as "effective" for sustainability by Military balance; less than 0.1 is rated as "insufficient")

The ASEAN naval build-up: implications for the regional order

JN Mak

Starting around 1987, the ASEAN countries have embarked on a number of programmes to upgrade and/or expand their holdings of conventional arms despite a world-wide trend of declining defence expenditures. The new emphasis is on maritime forces, including maritime air power. The reasons for this shift in emphasis include the appearance of new maritime disputes in Southeast Asia, the most well known being the Spratly Islands dispute in the South China Sea. Most of these disputes are a result of the post-Second World War trend to 'fence off' ocean space and for coastal states to extend their maritime jurisdiction, resulting in 200-nautical mile Exclusive Economic Zones (EEZ) and 12-nautical mile territorial seas.¹ Another reason usually given for the arms build-up is the disappearance of the bipolar balance of power following the end of the cold war, resulting in a switch from a 'threat-driven' defence calculation to one that is 'uncertainty-based'.² The Asia-Pacific region is becoming more complex, more multipolar and potentially more volatile. Indeed, several analysts have argued that the current ASEAN maritime build-up is largely the result of fears that either Japan, or more probably China, might attempt to exploit what is often called a 'strategic window of opportunity'. The ASEAN naval build-up has been described as an attempt to create a regional capability to counter the expanding Chinese navy.³

While many articles have been written on arms races and defence modernization and upgrades in the Asia-Pacific region, most of them deal only with why the region is building up and spending more on arms.⁴ The impact of various programmes on the regional order has not been critically examined. This paper sets out to analyse the impact of the ASEAN naval build-up on the regional order.⁵ It attempts to look at two basic issues: (i) the impact of the build-up on ASEAN as a region; and (ii) the wider impact on the Asia-Pacific and implications for regional players.

Analytical framework

Emmerson's framework for security regimes in Southeast Asia is used to analyse the impact of the ASEAN naval build-up on the regional order.⁶ This framework is based on the concept of the concentration of power or its dispersal in achieving regional order.⁷ This order can be achieved internally or externally, or both. The term 'external' in this context refers to the larger Asia-Pacific region outside of ASEAN, and includes Japan, Russia, Korea, Taiwan, the United States and China. 'Internal' refers to the six ASEAN nations as well as prospective ASEAN members such as Vietnam, Cambodia and Myanmar. The region can be seen as two concentric circles, with ASEAN forming the smaller, internal circle. The concentration of power leads to hegemony, while the dispersion of power leads to a state of balance. There are thus four broad categories or regimes of possible order, namely: internal balance, internal hegemony, external balance and external hegemony.

Thus, a useful way of analysing the arms build-up is to discuss it in terms of whether it is concentrating power or dispersing power. Will the build-up result in hegemony, or will it result in balance, or in a balancing act? Order is achieved either through balance, or as a result of hegemony, i.e. the unilateral imposition of order. Hegemony can be imposed through brute force, as during Japan's brief hegemony over Southeast Asia during the era of the *Greater East Asia Co-Prosperity Sphere* of the Second

World War. External hegemony can also be somewhat benign, as illustrated by the limited hegemony of the US between the end of the Second World War and the Nixon Doctrine of 1973. Balance is achieved when power is shared more or less equally by two powers or two groups. For instance, Emmerson sees ASEAN as providing an internal balance against Indo-China after the Vietnamese invasion of Cambodia, and that Indonesia and Malaysia provide an internal balance against Singapore and the ambitions of Thailand. Emmerson also argues that the US has, in the past, been involved in an external balancing act against the Soviet Union and China, and will be involved against China and possibly Japan in the years to come in the Asia-Pacific.

The following sections will examine the impact of the ASEAN arms acquisitions on the *external balance* (i.e. the power relationship between ASEAN and the Asia-Pacific powers), and the *internal balance* (the relationship among the ASEAN countries). The other component, the concentration of power, will be dealt with under *external hegemony* (the unilateral imposition of order by a dominant power outside ASEAN), and *internal hegemony* (the concentration of power within ASEAN for a unilateral imposition of order). These four categories are somewhat stark, even crude, but they serve as a single useful framework for analysing the naval build-up by the ASEAN countries. At the very least, this framework will give an idea of how the build-up will affect the region, who are affected, and whether the build-up is relevant or irrelevant as far as the power balance is concerned.

External balance

It has sometime been argued that ASEAN military acquisitions in recent years can have a stabilizing effect because they contribute to 'regional resilience'.⁸ The reasoning behind this is that ASEAN's military capability, if combined, can be enough to be a significant counterweight to balance those powers external to the ASEAN region. This combined capability would therefore result in greater ASEAN self-reliance which in turn would lead to a better balance between ASEAN, the inner circle, and the outer circle comprising the rest of the Asia-Pacific region.

This argument fails to take into consideration two important factors. The first is that for ASEAN to be significant in the external balance equation, there must be internal cohesion. ASEAN must present a united front and act as one military entity, either formally or informally. The second factor is that of numbers and capability. ASEAN's aggregated military strength, based on medium-term projects and military programmes which will come on steam in the near future, will not be enough to balance extra-regional actors.

The first factor, the absence of internal cohesion in ASEAN, is a crucial one. Lingering intra-ASEAN tensions and dichotomies, and the grouping's lack of common security focus and shared threat perceptions are responsible for the absence of internal cohesion. This is compounded by the lack of an imminent external threat. Cohesion is a pre-requisite for collective, concerted action in the strategic arena. The build-up will not, therefore, contribute to ASEAN regional resilience and collective strength because of this lack of internal cohesion.

Some analysts believe that defence cooperation would be an important force to improve regional cohesion, enhance intra-ASEAN confidence and promote a united front in the face of an increasingly uncertain world order. Indeed, they regard ASEAN security and defence cooperation as natural and inevitable. Superficially, it appears that there are many reasons why ASEAN should have little difficulty in upgrading its

defence ties. The first is ASEAN's success as a multilateral subregional organization. In this respect, it is the only successful multilateral organization with a proven track record in the Asia-Pacific. Secondly, the organization's web of bilateral defence linkages makes it seemingly easy and logical to extend these defence ties. Then there is the concerted move towards a maritime emphasis by all the ASEAN members in the face of a declining US military presence. Finally, there is US, and even Japanese, pressure for the creation of an ASEAN or Southeast Asian security structure which would be able to maintain regional stability at minimal cost to the US.⁹ It is therefore, often argued that ASEAN - which might or might not include other Southeast Asian states such as Vietnam and Cambodia in the near future - will eventually evolve into a true defence organization like NATO. This move is also to pre-empt other regional organizations, principally APEC, from shifting the regional focus away from ASEAN.

However, it appears more likely that ASEAN security linkages will be reduced even more because of the continued existence of intra-ASEAN suspicions. The grouping has successfully contained rather than resolved intra-ASEAN disputes.¹⁰ Security cooperation in ASEAN thus far has been limited, confined principally to bilateral military exercises and the exchange of information. This has not resulted in greater cohesion. As for ASEAN's apparent success in institutionalizing multilateral cooperation, this success is largely the result, at best, of overlapping bilateral arrangements. These factors are particularly pertinent with regard to the future of ASEAN defence cooperation and cohesion. Another important reason for the delinking of ASEAN security is the disappearance of the Cambodian cement. Finally, there is a lack of near-term readily identifiable threats. In the absence of a common defence threat, ASEAN will lack the political will to cooperate militarily. Unlike Europe and NATO, which was structured in response to a specific and easily identifiable military threat, ASEAN was basically created to resolve intra-ASEAN tensions. ASEAN has succeeded only because its aspirations were very basic, namely, to ensure that bilateral disputes/tensions were kept in check. The new world order, despite its uncertainties, contains a gamut of discernable lower-level threats. There are no clearly visible external military threats to national security on the horizon. There is, therefore, no pressing need for the ASEAN members to close ranks.

For the 1980s, the Cambodian *imbroglio* provided ASEAN with a common security focus, so much so that it became known as a 'one-issue institution'. The Paris Agreements of 1991, however, removed this sole security issue for ASEAN, with some observers believing that the organization would begin to unravel as a result.¹¹ Events in 1992 suggested that a number of unresolved regional security issues, among them the fate of the Spratly Islands in the South China Sea, would continue to reinforce the importance of ASEAN. But can the Spratly's become the glue to hold ASEAN security interests together? This is unlikely to happen because Malaysia, the Philippines and Brunei are among the six claimants involved in the dispute over the archipelago, and there has been no effort to solve the dispute on an ASEAN basis.¹² Divergent national interests are still paramount, and ASEAN still feels that it is unnecessary to close ranks where the Spratlys are concerned. The one exception was the ASEAN foreign ministers' joint communiqué issued in Manila in July 1992 where the Spratlys issue topped the agenda of the 1992 ASEAN Ministerial Meeting (AMM), and it was the inspiration behind ASEAN's first formal declaration involving regional security - the ASEAN Declaration on the South China Sea - which emphasized the need to solve all sovereignty and jurisdictional issues in the South China Sea by 'peaceful means, without resort to force'.¹³

While some analysts have interpreted this declaration as a sign of increasing ASEAN security cooperation, the truth is that it was more of a reaction towards China's passing of a law on its territorial waters in February 1992 which reasserted Beijing's 'undisputed sovereignty' over the Spratlys and the Paracels, followed by its signing of an agreement with the US-based Crestone Energy Corporation for the exploration of oil and gas in a 25,000 km² area around the Spratlys.¹⁴ In that sense, the AMM declaration was more a reaction than evolution. No ASEAN country can afford to confront China militarily or to engage Beijing in an arms race. Thus the AMM declaration should be seen as an attempt by the ASEAN members to handle China using non-military means as a specific response to a situation which could potentially disadvantage all the ASEAN countries. Another reason for the lack of a more cohesive ASEAN approach towards resolving the Spratlys dispute is that while the conflicting claims are potentially destabilizing for regional security in overall terms, the Spratlys dispute does not really threaten the national security or existence of any ASEAN claimants involved.

The pull factor of interests, such as Thailand's Golden Peninsular or *Suwannaphum* concept intended to make Thailand the hub or economic and political centre of mainland Southeast Asia, or Indonesia's maritime ambitions, also threaten to further , undermine whatever little military cohesiveness there is within ASEAN. Indeed, it is significant to note that Thailand's present navy chief had to embark on a confidence-building trip to explain to his ASEAN defence counterparts Thailand's intentions with regard to its naval modernization programme.¹⁵

It can be argued, therefore, that the ASEAN naval build-up has little impact on ASEAN Southeast Asia in relation to *external balance*. The build-up tends to be discrete, and is unlikely to result in a strong and cohesive ASEAN which can at least provide a regional counterweight to balance external powers. In the context of the wider Asia-Pacific, and given the disparities in strengths and capabilities between ASEAN navies, and the navies of potential regional hegemon/balancers such as India, China and Japan, the ASEAN naval build-up will not be significant as a counterweight. (Table 1).

Internal hegemony

The arms build-up is unlikely to contribute to the rise of an internal hegemon, even in the middle-term, which can unilaterally impose order.

Indonesia is generally recognized as the potential hegemon of ASEAN because of its size, economic potential, and its sense of endowment as the natural leader of ASEAN. Indonesia is still inward looking, and among all the ASEAN nations, is still coping with building a sense of national identity amidst great diversity. In addition, the problem of who will succeed Suharto remains to be resolved. All the signs are that Indonesia will not be concentrating on dominating ASEAN. From the purely military point of view, Indonesia is still too weak to impose order unilaterally. This is unlikely to change in the foreseeable future. The 39 ex-east German navy ships purchased by Jakarta under B.J. Habibie's instigation are more for resource protection than power projection. Even the achievement of benign hegemony would appear to be difficult for Indonesia, since it would require the acquiescence, if not support, of the other ASEAN members. Singapore appears to be clearly worried about the rise of an internal hegemon, and its defence and foreign policy since its independence has been marked by its commitment to engage a benign external power, principally the US, to balance its immediate neighbours. Malaysia, too, has reservations about an overly

assertive Indonesia, and has attempted to moderate Indonesia by various foreign policy initiatives.

Thailand, whilst displaying some degrees of ambition in its defence purchases recently, still has not the means to project power comprehensively to dominate ASEAN. Despite some very ambitious defence programmes on paper, actual implementation has been marked by shifts in defence priorities and bedevilled by financial problems.¹⁶ Its acquisitions have been dramatic because Bangkok has, in the last 10 years or so, paid disproportionate attention to its navy and this has led to fears of Thai 'blue water' ambitions. Much of Thailand's naval modernization appears to be the result of two factors. Firstly, there is a perceived need to defend the economically vital Eastern and Southern Seaboard projects.¹⁷ Secondly, inter-service rivalries have allowed the Royal Thai Navy to rise above its previous position as the most 'junior' of the three services.

Singapore, arguably the most technically capable and 'offensive' of the ASEAN armed forces, will never be allowed to be an internal hegemon by Indonesia and Malaysia. There are some very real constraints with regard to Singapore's potential role. The first is that as a perceived Chinese state, it has to interact with two very large Malay neighbours. The second constraint is sheer demographics. As a city state of 2.8 million people, it is dwarfed by all its ASEAN neighbours, except Brunei.

Malaysia has only recently embraced the concept of conventional external defence after years of counter-insurgency warfare. The army is pursuing its Rapid Deployment Force (RDF) concept with great ardour despite a lack of funds to purchase sufficient quantities of equipment, such as helicopters, transport aircraft, and appropriate armoured fighting vehicles, for the role. Despite an increasing awareness of the importance of maritime defence in Malaysia, the Royal Malaysian navy's doctrine is underscored by the resource protection role rather than any offensive strategy.¹⁸

As for the Philippines, its capability is extremely limited. After years of relying on the US shield against external aggression, Manila is hard put to protect its resources from poachers, let alone even think of being a potential hegemon. Brunei as a mini-state, has absolutely no hope of dominating the region unilaterally.

Overall, it can be said that most of the ASEAN states are more worried about potential predators than being predators themselves. Hegemonism appears to be a costly option, both economically or politically, for the ASEAN states at the moment. In addition, the very geo-political structure of ASEAN, split into a continental component dominated by Thailand, and a maritime component with Indonesia dominant, makes it very difficult for any internal power to achieve hegemony.

External hegemony

The impact of the major powers in the Asia-Pacific on ASEAN will be very significant. Their roles, either as potential hegemonies or balancers, will shape future ASEAN responses to a large degree. The main Asia-Pacific players will be the US, Japan, China, Russia and possibly Korea, and somewhat more remotely, India. The interactions of the first four - the US, Russia, China and Japan - will be the most significant.¹⁹ Of these four powers, the US, Russia and Japan have no wish, or are incapable, of becoming regional hegemonies for reasons which will be explained below. It is only China which is displaying all the signs of a power on the ascendant, and as such is the only likely candidate for the position of regional hegemon.

Nevertheless, it is important to examine the relation of these four countries *vis-à-vis* ASEAN and the likely impact of the ASEAN naval build-up on the relationships.

Russia

Russia is a successor state to the Soviet Union still has enormous military power in the Asia-Pacific. But Moscow is so beset with internal problems, and keeping order within the Commonwealth of Independent States itself, that it has little inclination to project power outside its immediate borders. While the Russian Pacific Fleet is a fleet-in-being, it is not going to be a significant player in the foreseeable future. Moreover, Russia has been very enthusiastic about its economic and political integration in the Asia-Pacific region since the Gorbachev years and appears to be keen to forge a new security structure in the region.²⁰

The United States

The US is no longer the benign hegemon, because in comprehensive terms it is a declining power. The decline is not confined to economic and military power, but according to some critics, in social terms as well.²¹ While the US remains the single most powerful military power in the world, this power is in decline as 'others grow faster and as the United States reduces its armed forces'.²² The declining US military capability and political will to underwrite security world-wide is reflected in Washington's search for cooperative security. During its heyday as a benign hegemon, the US was not at all enthusiastic about multilateral security, preferring instead to rely on a series of bilateral security arrangements in Asia. Today it is beginning to feel less enthusiastic about taking sole responsibility for military leadership in the region. Indeed, in 1992, Richard Solomon, the then-assistant secretary in the State Department followed by Stephen Solarz, chairman of the Asia-Pacific Subcommittee, separately proposed formulas for collective security for the Asia-Pacific.²³

Since ASEAN is still weak relative to the Asia-Pacific powers, all the ASEAN states have been attempting to persuade the US to remain engaged in the region. This is in recognition of Washington's utility as an honest regional balancer. This unanimous ASEAN perception of the US as the 'cornerstone of regional stability' was made clear at the 1992 Manila Conference.²⁴ Military relations with the US have become less controversial. Moreover, the US drawdown has raised the value of the American security presence by virtue of its perceived scarcity.

Japan

There is a great deal of unease and uncertainty over Japan's regional military role. There are those who fear a militarily reassertive Japan on the one hand, and on the other, there are proponents of a more militarily proactive Japan to act as a countervailing power against long-term Chinese ambitions in the region. Japan itself is uncertain about its foreign policy role and even where its interests lie.²⁵ It is likely that Japan, given the perceived inevitable US military drawdown over the long term, will find itself increasingly compelled to look after its strategic interests in the Asia-Pacific region. In the final analysis, Tokyo realizes that it cannot rely on the US military shield forever, and indeed has already crossed the hurdle of whether it should play a political and security role in the world. This is reflected in the despatch of Japanese peacekeepers to Cambodia and Mozambique under UN auspices.

Much has been said about Japan as a potential military power. What is not generally realized, however, is that Japan today is a constrained power unlike during the 1930s.

Then, Asia consisted of either corrupt, ineffective regimes or was divided up as colonies by Western imperialists. Japan, as the only effective industrialized power in Asia at that particular time was able to indulge in military adventurism with a marked degree of success. Japan today is but one of many industrialized powers - albeit the most advanced - in a region which in demographic and military terms is dominated by China. Moreover, a unified Korea has the potential to become a significant player in military terms. Despite the fact that it is a member of the new concert of six world powers, Japan is arguably the most vulnerable, with 'fewer basic strengths than the other five'.²⁶ Of the six, it has the smallest population, an extremely limited territory with no hinterland, and virtually no natural resources. Today, the geo-strategic situation is also very much less in Tokyo's favour. The new post-cold war era, the end of the east-West confrontation and the demise of the Soviet Union has disadvantaged Japan economically and politically. It has made Japan no longer Washington's strategic lynchpin to contain Soviet expansionism in the Far East, and as a consequence allowed resentment against the so-called Japanese economic imperialism to reach new peaks in the US. It would be extremely difficult for Japan to dominate Asia militarily today given the current military and demographic balances, and the military potential of Korea, Taiwan and China. In spite of public statements regarding the dangers of a re-militarized Japan, ASEAN's defence modernization has little to do with its perception of the 'Japanese threat'.

From ASEAN's point of view, Japan could be used as a countervailing power to China's military might. In this sense, it can be argued that countries such as Malaysia, Indonesia and even Singapore would not be hostile to a Japanese military presence in the region. Indeed, there are indications that some ASEAN leaders prefer to engage Japan positively in Tokyo's quest for regional security, rather than wait for Japan to go it alone unilaterally since Japan will inevitably seek to underwrite its own regional security in the evolving strategic environment. The US-Japan trade friction, for instance, has given rise to fears that the Treaty of Mutual Cooperation and Security between Japan and the US of 1960 might eventually break down and would result in Tokyo re-arming, and triggering off an arms race in Northeast Asia which would destabilize the entire Asia-Pacific region. Indeed, a Sino-Japanese arms race - which most people assume would be conventional - could well turn into a nuclear arms race since Japan, even more than India, is virtually capable of going nuclear at the 'turn of a screwdriver'. In fact, the only fear of a Japanese military presence in Southeast Asia, whether invited or not, is that it would most likely spark off an arms race involving China, and to a lesser degree, the two Koreas. The very close Russian and Chinese military cooperation existing at the moment, especially Moscow's sale of its latest technology and equipment to Beijing, could well force Japan to accelerate its re-armament programme.

As for its potential role as an external hegemon, Japan today is a 'sensitive' power, because it is a constrained power. It needs to be co-opted by other nations in the region for any security initiative. As a consequence, Tokyo today sits at the forefront of initiatives for the multilateralization of defence and cooperative security. This contrasts markedly with its position before 1990 when it firmly believed in bilateral dialogue and the US-Japan security arrangement. In this respect, one suspects that Tokyo is not even attempting to play a leading role in multilateral security. Its multilateralization effort seems to centre around keeping the US in as a regional balancer. Unlike the US, however, Japan appears to be very keen on ASEAN as a key forum for multilateral security.²⁷

Three factors, therefore, account for Tokyo's limitations as a potential hegemon. The first is that any attempt to dominate the region, whether consciously or not, would trigger off a hostile Chinese reaction, possibly leading to increased tensions and an arms race. Second, the historical antipathy felt by many countries in the region towards a remilitarized Japan as a result of Japan's Second World War occupation of the region would make any attempt at the unilateral imposition of order by Japan counterproductive. Finally, Japan's postwar 'peace constitution' also places constraints on any military adventurism. At best, Tokyo can only play the role of balancer. Its potential as a hegemon is extremely constrained.

China

China as a military power is insensitive, and does not feel the need for cooperative security. Regional security cooperation is not high on Beijing's political agenda.²⁸ Although China is not yet comprehensively strong, it has the potential to become comprehensively strong with a strong economy. Other indicators of China's growing strength, and possible intentions, include its increased defence spending four years in a row, ranging from between 13 and 15 per cent increases.²⁹ Despite the loss of the Cambodian 'cement' which saw a coincidence of Chinese-ASEAN interests, and despite the Tiananmen incident of 1989, China is being increasingly wooed by ASEAN. Some wooers, of course, are more ardent than others. But this relationship remains an uneasy one.

In addition, unlike Japan and the US, China remains the 'most sceptical' with regard to more ambitious dialogue process and multilateral security. This is one reason why China is perhaps not responding so much to cooperative security, and has to be drawn out. While some ASEAN states and other Asia-Pacific nations always talk of engaging China constructively and positively, China prefers to deal with the region on a bilateral basis.

The problem with engaging China is that China is still a long-term uncertainty factor. It is significant to note that while China was regularly touted as Indonesia's and Malaysia's primary security threat in the cold war years, attitudes have changed, at least officially, since the end of the cold war. Indonesia resumed official ties with China in August 1991, followed by Singapore and Brunei. Since 1992, the ASEAN countries in the post-cold war years have become increasingly accommodating towards China. This is reflected in Malaysia's new attitude towards Beijing, and in the argument of the prime minister, Mahathir Mohamad, that China is no longer a threat to the region. In what can be considered to be a strategic volte face, Mahathir claimed that 'US naval fleets in East Asia were "a waste of money" as there was nothing to fear from either Japan or China'.³⁰ This is in stark contrast with the official perception as recently as 1991 that China was the greatest long-term threat to regional stability.³¹ The new pragmatic approach is the result of the awareness that compared with a US in retreat, China is physically at least, part and parcel of Southeast Asia. Realpolitik dictates that it is not only prudent, but economically profitable, to constructively engage China. Thus China was invited to join the ASEAN Regional Forum (ARF) in Bangkok in 1994.

Economic linkages between China and ASEAN, particularly Malaysia and Singapore, are becoming more important. Malaysia and Singapore in particular have embarked on 'taming the tiger' by investing in China and adopting a pro-Beijing stance in a number of significant foreign policy issues, most notably human rights.³² The day could come when ASEAN and China's economies become intertwined, thereby

leading to a more lasting stability beyond power structures. Nevertheless, most investments are going to the southern provinces and special economic zones. Trade and economic ties are therefore not evenly spread across China. With potential centre-periphery problems involving Beijing and the rest of China, the constructive engagement of China by ASEAN is therefore limited. Moreover, the long-term uncertainties with regard to China make it difficult to predict with any degree of accuracy whether the constructive engagement of China will pay off for ASEAN with regard to security.

While China is no longer regarded as a direct and immediate military threat, it still figures prominently in ASEAN's strategic calculations. This is because of the uncertainty factor, China's geographic proximity, Beijing's all-encompassing claim to the South China Sea, and its potential military might. While China has consistently assured ASEAN of its peaceful intentions, the fact that it is modernizing its military machine, and acquiring long-range power projection capability on the form of modern air and sea power, makes Southeast Asian states jittery. In addition, Beijing's habit of reassuring its neighbours as to its peaceful intentions on the one hand while flexing its military muscle on the other, especially in the South China Sea, does little to reassure ASEAN.

The uncertainty factor is compounded by the question of China's ageing leadership which remains unresolved - whence the next generation of leaders, and what would be the shape of their foreign policies? As one news article put it, 'for all the genius behind China's economic revolution, Deng [Xiaoping] has created a beast without a head'.³³ What will be China's future strategic direction? Indeed, various analysts have argued that central authority in China will increasingly become weaker, and that there is even the possibility of China breaking up after the death of Deng Xiaoping, and that a new generation of Chinese leaders might decide to embark on foreign, external adventures in, for instance, the South China Sea, to give Chinese nationalism an external focus.³⁴ Scenarios of a future China range from a warring, fragmented China under regional warlords, to an ultra-nationalistic rogue military state bullying its neighbours, to a stable, benign and economically booming and democratic China.³⁵ Overall, it is impossible to forecast China's future at this point.

Internal balance

The most significant impact of the naval build-up in Southeast Asia is likely to be on the internal balance, that is, on the ASEAN countries themselves. This is because the major ASEAN armed forces are all virtually similar in terms of maritime power and power projection capability, with the exception of Brunei and the Philippines. While the ASEAN build-up has little impact on the power balance/distribution in the wider Asia-Pacific, the fact that the ASEAN armed forces are fairly evenly matched in terms of numbers means that any build-up by an ASEAN state can upset the power balance *within* ASEAN itself. Thus, whether the build-up will lead to an internal balance, based on mutual balance or balancing by different factions or power centres within ASEAN itself, has direct relevance. It is because any build-up will affect the internal ASEAN power structure that the ASEAN arms acquisition programmes should be seen as real or potential arms races.

Given the fact that ASEAN lacks internal cohesion and a common security focus, it is not too presumptuous to say that the build-up in ASEAN is somewhat non-cooperative in nature. Although ASEAN officials have always insisted that prior consultations do take place before any ASEAN member embarks on a major arms

programme, the lack of a common security focus means that any internal balancing taking place within ASEAN involves a degree of instability. Indeed, neo-realists tend to believe that a multipolar system is more prone to instability than a bipolar or unipolar system. The smaller the number of actors, the better, however, instead of becoming more cohesive, ASEAN is still a grouping of six states with their individual agendas.

Neo-liberals believe that the structural framework of power is not the main basis for regional stability in a multipolar world. Other factors such as increasing economic interdependence and institutional interconnections will result in more regional integration and harmony in the long term. Some analysts have therefore argued that the 'web of interlocking interests', in particular economic and newly developed institutional interests, ought to contribute to a stable and united ASEAN.³⁶ The economic and institutional linkages and increasing interdependence of ASEAN would contribute to more internal cohesion. Despite growing economic ties such as the three sub-regional growth areas, it remains to be seen how far these economic linkages will contribute to cohesion and political interdependence.³⁷ ASEAN economic cooperation, in fact, has been described as slow because 'powerful and contending economic nationalism of the ASEAN member states' tends to take precedence over regional cooperation.³⁸ This is not to say that ASEAN will never develop in future into a secure and stable security regime as a result of economic interdependence and institutional interconnections. At the moment, however, economic linkages are still rather weak to have much of a positive impact on regional resilience.

Security based on interdependence and common economic interests also assumes democratic, stable governments which will work for the common good of the people. Real democracies do not fight one another, and the spread of democratic institutions in the Asia-Pacific will result in greater stability. In Southeast Asia, however, true democracy has yet to be established in many states. There are still opportunities for leaders to prioritize foreign policy agenda according to their personal whims and fancies in those Asian states which display varying mixes of democracy and authoritarianism.³⁹ These less-than-democratic countries include nearly all the ASEAN members. In addition, income and wealth are still not evenly distributed. All these factors undermine regime stability, and ultimately, regional security and stability.

In the final analysis, the ASEAN countries face no major external threats in the short term - not China, nor India or Japan, or even conflict over the Spratlys. This situation is reflected, for instance, by Indonesia's open acknowledgment that the Republic faces no 'immediate outside threat'.⁴⁰ Nevertheless, the lack of readily identifiable enemies in the short and medium term, and uncertainty over the long-run shape of the regional order, such as a possible Sino-Japanese naval rivalry, has given rise to a mood of uncertainty in strategic planning which in turn has placed the emphasis on contingency planning. The individual ASEAN members must acquire a certain minimal level of capability to deal with low-level contingencies. In this context, the scenario might involve maintaining/acquiring a capability to respond to and contain tensions in the South China Sea and for resource protection.

ASEAN contingency planning is not based on scenarios involving the major regional powers such as China and Japan. It involves planning against lower-level threats, such as piracy, illegal immigration and threats which might emanate from near neighbours, or which might arise from intra-ASEAN tensions. This where the scope for 'internal

balancing' enters the picture. The ASEAN countries have quite realistically eschewed playing in the maritime 'big league'. The modernization programmes can therefore be described as belonging to the 'junior league' in terms of scale and numbers. But this can be potentially destabilizing for Southeast Asia because it makes all the ASEAN members potential competitors, precisely because they all playing in the same league. Since all are junior league players, it would make an intra-ASEAN arms race 'thinkable' at least in economic terms. Moreover, 'junior league' contingency planning in the absence of serious military threats allows non-threat dynamics, such as competition for prestige and the influence of the military, to surface and sometimes even dominate. factors such as lingering intra-ASEAN suspicions and competition for status can therefore take on an added dimension. The ASEAN naval build-up, therefore, has the greatest potential impact on the internal balance.

This is compounded by the lack of institutional structures to moderate the build-up. Hence, there is a danger that ASEAN 'internal balancing' could develop into a non-cooperative one, that is, it could well develop into an intra-ASEAN arms race. The increasing importance of contingency planning against what might be termed 'detractable threats' for countries like Singapore, for example, is underscored by the fact that the US is no longer the regional policeman. The utility of the US military presence in Southeast Asia, centred largely on the Philippines, was not only to provide a shield against so-called communist aggression during the cold war, but it also kept in check the intra-regional animosities of Washington's allies. The US presence reassured Singapore for instance, that it would be able to depend on an external power against any possible attempt by Indonesia or Malaysia to forcibly annex the island republic.

With the disappearance of the cold war bipolar balance, and a US seemingly less committed to the regional policeman role, countries like Singapore increasingly see the need to counter potential adversaries. Thus, contingency planning has been given priority, especially with regard to intra-ASEAN contingencies.⁴¹ Singapore, for instance, has adopted a dual track security policy. The first is its attempts to engage its ASEAN partners more constructively via foreign policy initiatives. The second is to rely on defensive deterrence. Singapore's defence planning is increasingly based on countering the unpredictable. This is underlined by the fact that Indonesia's Suharto, who has been friendly to Singapore, is ageing and an Indonesia under a new leadership might not be as constructive in its relationship with Singapore. Likewise, Singapore is also worried about the future direction and policies of Malaysia. Moreover, there appears to be still a degree of distrust between Malaysia, Singapore and Indonesia for a variety of reasons. Singapore still seems to feel vulnerable as a Chinese state caught between two populous Malay neighbours. For instance, Singapore created a minor furore in 1991 over a 10-day Malaysian-Indonesian military exercise in Johore, and accused Kuala Lumpur of 'insensitivity for holding such major manoeuvres close to the republic' without prior notification.⁴² There is still the thorny issue of Singapore's 'forward defence' doctrine, while Indonesian-Malaysian ties have been affected by the Malaysian prime minister Mahathir's regional foreign policy initiatives, which is regarded by Jakarta as a challenge to its leadership role.⁴³ All these frictions, among other things, probably contributed to Malaysia's stand 'against the establishment of trilateral or regional military alliances'.⁴⁴

With no common political aims and common defence objectives, the old intra-ASEAN rivalries are beginning to re-surface. Despite the primacy of economic

growth and development objectives in each of the ASEAN countries, even economic cooperation is not expected to be smooth sailing. In fact, most of the ASEAN countries tend to be economic competitors rather than partners at this stage of their development. Even the ASEAN Free Trade Area (AFTA) is far from problem-free. There are disagreements over the time-frame, the products to be covered, and some countries have been accused by others of dragging their feet in making AFTA work.

This uncertainty factor, and therefore the importance of contingency planning, is one reason why nearly all the ASEAN countries are building up their maritime defence, and indeed, overall defence capability. When pressed hard to explain their arms build-up, the usual explanation by the ASEAN countries is that it is 'just in case'. For instance, Malaysia's former defence chief, General Abdul Rahman, chided critics of the country's current defence modernization programme for failing to understand the 'meaning of defence and security', and explained that a strong armed force was needed 'as no one knew who would become the country's enemies and threaten its sovereignty'.⁴⁵ In the words of the Malaysian defence minister, Najib Tun Razik, 'due to the uncertain and fluid nature of the strategic environment, the MAF [Malaysian Armed Forces] has to be prepared for all eventualities'.⁴⁶ Similarly, contingency planning was one reason put forward by Thailand for its naval expansion.⁴⁷ But planning for contingencies against neighbours and fellow members of the grouping is something which the ASEAN states cannot directly and openly articulate. Yet it remains an important consideration behind the current arms build-up. The danger of contingency planning is that: 'there is no obvious boundary between taking prudent steps to prepare for future challenges and taking actions that could be perceived as threatening others and thus stimulate hostile responses'.⁴⁸ The current defence acquisitions by the ASEAN states is, in a sense, a form of arms race powered by the dictates of contingency planning, or uncertainty-based planning. While not a hostile arms race in the classical sense of the term,⁴⁹ it is important to note that contingency planning and with it the acquisition of more modern and capable military power, has serious future implications for three reasons. First, ASEAN can afford to spend more on arms purchases as a result of strong economic growth: that is, defence expansion and modernization is 'affordable' for most of the ASEAN countries. Second, there is increasing uncertainty over the shape of the regional order, coupled with the possible failure of the other facets of national security policy which the ASEAN partners have traditionally relied on since the postwar era, such as alliance structures, external guarantors and non-alignment postures. Third, the end of the cold war has resulted in western arms manufacturers who are also in competition with new suppliers from Russia and South Africa vying for the lucrative Asia-Pacific arms market. ASEAN countries are being tempted by 'deals of the century' arms packages which include everything from training to counter-trade.

The end result is that a certain defence capability is being created in the ASEAN region. How capable is this potential fighting machine? While ASEAN conventional combat capability is difficult to assess, and should not be equated with mere numbers or the simple acquisition of weapons systems and platforms, there is no escaping the fact that in the long term, arms procurement in the absence of any clear rationale or logic can be destabilizing.⁵⁰ Unlike economics, there are no baseline indicators to indicate when any defence modernization or expansion programme is becoming destabilizing. One argument put forward to explain why ASEAN's current defence programmes are not destabilizing and that they will not spark off an arms race is that the numbers of weapons originally in the inventories of the individual ASEAN

members were very few to start off with, that is, base levels were very low. In addition, weapons systems were getting old and obsolete, and the present acquisitions should be viewed as replacement/modernization programmes. While these are very valid explanations, the danger is that numbers can creep slowly but steadily upwards on an incremental basis. At the same time, increases in capability, at least in theory, can be exponential in terms of accuracy, range and effect. Herein is the danger: that we can all go over the edge before we know it.

Conclusion

Overall, the ASEAN naval build-up has little impact on the ASEAN/external balance cell. This is because of the lack of cohesion and a common security focus among the six-member nations. As such, ASEAN arms acquisitions cannot be aggregated in any calculation of ASEAN military strength. It is misleading to equate the build-up with the regionalization of ASEAN defence, although a number of ASEAN leaders have often referred to this. This is because the individual ASEAN members are still acting quite independently, to all intents and purposes. No ASEAN country is comprehensively strong enough politically, socially or militarily, to be an internal hegemon. Potential external hegemonies, on the other hand, will be little affected by the ASEAN build-up. Their military strengths dwarf that of ASEAN.

It is the internal balance matrix which will have the most serious implications for ASEAN. The ASEAN build-up can be potentially destabilizing because four major powers in ASEAN - Singapore, Thailand, Malaysia and Indonesia - are evenly matched in terms of conventional military power. Intra-ASEAN stability can, furthermore, be undermined by historical animosities and suspicions. All the ASEAN states belong to the 'junior arms league', and are therefore all potential competitors. The fact that much of ASEAN defence planning is based on contingency planning can be detrimental to stability.

Many ASEAN leaders have denied that there is any form of an intra-ASEAN arms race taking place. The official view is that the arms purchases are modernization programmes, and not designed to counter the military purchases of any neighbouring country. All these denials of an intra-ASEAN arms race can be counter-productive, even dangerous. While the build-up has not become an arms race, it must be recognized that the greatest impact of the ASEAN arms programmes is internal. Consequently, it could be potentially destabilizing if the modernization programmes are not monitored or moderated.

There is such a real need for confidence building institutions and dialogue to promote intra-ASEAN transparency. Optimists have argued that ASEAN is responding to the changed strategic scenario positively. The ASEAN-PMC and the ARF are cited as examples of the widening of ASEAN security cooperation to cover military and defence issues. In addition, the forums have been expanded to include nearly all the Asia-Pacific nations.⁵¹ The ARF has been described in some circles as 'Asia's first attempt to crisis prevention'. The ARF, in the final analysis, should primarily be a mechanism to reassure the ASEAN members of each other's intentions. For the moment, its value as a forum for discussing security issues with non-ASEAN members may be less important. The ARF should be viewed principally as an intra-ASEAN confidence building mechanism in an uncertain strategic environment. The ARF, if developed carefully, can have considerable benefit for moderating the ASEAN arms build-up. The fact that the ARF has endorsed the UN Register of Conventional Arms is a significant step in the right direction. The institutionalization

of a confidence building mechanism is necessary for ASEAN because the impact of the ASEAN naval build-up is primarily internal. If this internal balancing is not controlled and moderated, it could well lead to an arms race among ASEAN states. There is a need therefore to institutionalize the ARF beyond informal *ad hoc* dialogue.

¹ For a detailed discussion on the general ASEAN shift from counter-insurgency warfare strategies in the 1970s to the present emphasis on maritime defence, see J.N. Mak, *ASEAN Defence Re-Orientation 1975-2002: The Dynamics of Modernisation and Structural Change*, Canberra Papers on Strategy and Defence, No. 130, Canberra: Strategic and Defence Studies Centre, Australian National University, pp. 23-32.

² 'Asia's arms race gathers momentum', *New Sunday Times*, 28 February 1993. For a more detailed explanation of contingency-driven defence planning in ASEAN, see J.N. Mak, 'ASEAN maritime insecurity: contingency planning in an uncertain world', *International Defense Review Yearbook 1995*

³ Prasun Sengupta, 'The Malaysian Navy in transition', *Military Technology*, no. 4, 1992, p. 70; and Stuart Slade, 'Naval construction in the ASEAN Area', *Naval Forces*, XII(VI), 1991, p. 18.

⁴ Des Ball, 'Arms and influence: military acquisitions in the Asia-Pacific region', *International Security*, 18(3), 1993/94, pp. 78-112.

⁵ This paper will deal primarily with the ASEAN states, simply because the other Southeast Asian states - Myanmar, Laos, Cambodia and Vietnam - have no significant naval acquisitions now nor will have in the near future for various reasons.

⁶ Donald Emmerson, 'Part Two: scenarios and regimes', *NBR Analysis*, 4(2), pp. 18-35.

⁷ Emmerson's framework is essentially based on the neo-realist school which argues that the structure of an international system, i.e. the distribution of power among states, will determine its destiny.

⁸ The Singapore defence minister, Dr Yeo Ning Hong, referred to the arms purchases by Indonesia and Malaysia announced in 1993, as having the potential to strengthen regional resilience and 'help keep the peace and stability in the Asean region', see 'Singapore lauds arms purchases' *New Straits Times*, 2 July 1993.

⁹ Thomas Wilborn, *Stability, Security Structures, and U.S Policy for East Asia and the Pacific*, US Army War College, Carlisle Barracks, PA: Strategic Studies Institute, 1993.

¹⁰ Tim Huxley, 'Insecurity in the ASEAN region', *Whitehall Paper Series*, London: Royal United Services Institute for Defence Studies (RUSI), 1993, p. 11.

¹¹ *Asian Security 1993-94*, London: Brassey's, p. 166.

¹² China and Taiwan are laying claim to the entire South China Sea, with Vietnam claiming the whole archipelago. The Philippines, Malaysia and Brunei also lay claims to parts of the Spratlys, see B.A Hamzah, *The Spratlys: what can be done to enhance confidence*, ISIS Research Note, Kuala Lumpur: Institute of Strategic and International Studies, Malaysia, 1990.

¹³ 'ASEAN Declaration on the South China Sea', *Joint Communiqué of the Twenty-Fifth ASEAN Ministerial Meeting*, Manila, 22 July 1992.

¹⁴ '10 Nations to Discuss Spratlys', *New Straits Times*, 29 June 1992.

¹⁵ J.N. Mak and B.A Hamzah, 'Navy blues', *Far Eastern Economic Review*, (5th column), 17 March 1994. In a public lecture at the Malaysian Institute of Maritime Affairs (MIMA) on 27 October 1994, the Thai navy chief asserted that the acquisition of the Thai navy helicopter carrier was primarily for disaster relief in the Gulf of Thailand during the annual typhoon season.

¹⁶ For example, the Thai air force split its latest purchase of F16s into three components or sub-programmes, airframe, engine, and avionics, to circumvent budgetary restrictions.

¹⁷ Just why the Thai navy has been given prime responsibility for this role is still not clearly understood.

¹⁸ Mohamed Shariff, 'The modernisation of Malaysia's maritime defence: the makings of a maritime strategy?', Public lecture (unpublished) delivered at the Malaysian Institute of Maritime Affairs, Kuala Lumpur, 5 April 1994.

¹⁹ Edwards Olsen and David Winterford, 'Multilateral arms control regimes in Asia: prospects and options', *Asian Perspective*, V(2), 1994.

²⁰ Samsung Lee, 'Peace and security in Northeast Asia: reality and vision', *Asian Perspective*, 18(1), 1994, p. 141.

²¹ Kishore Mahbubani, 'The United States: Go East, Young Man', *Washington Quarterly*, 17(2), pp. 5-23.

²² Aaron Friedberg, 'Ripe for rivalry: prospects for peace in a multipolar Asia', *International Security*, 18(3), 1993/94, p. 6.

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- ²³ Sun Song Young, 'Prospects for a new Asia-Pacific multilateral security arrangement', *Korean Journal of Defense Analysis*, V(1), 1993, p. 194.
- ²⁴ That Tien Ton, 'Southeast Asia's post cold war geopolitics', *Global Affairs*, Winter 1993, p. 47.
- ²⁵ Bernard Gordon, 'Japan: Searching Once Again', in James C Hsiung (ed), *Asia Pacific in the New World Politics*, Boulder CO: Lynne Rienner, 1993, p. 55.
- ²⁶ Coral Bell includes the US, Western Europe, Russia, India, China and Japan as the six members of the new 'concert of powers'; Coral Bell, *The Post-Soviet World: Geopolitics & Crises*, Canberra Papers on Strategy and defence, No. 98, Canberra: Strategic and Defence Studies Centre, Australian National University, 1992.
- ²⁷ Sun Song Young, 'Prospects for a new Asia-Pacific multilateral security arrangement', *Korean Journal of Defense Analysis*, V(1), 1993, p. 192.
- ²⁸ Andrew Mack, 'Naval arms control and confidence building for Northeast Asian waters', *Korean Journal for Defense Analysis*, V(2), 1993, p. 140.
- ²⁹ Linder notes that between 1989 and 1992, the official military budget increased by 52 per cent; James Linder, 'Chinese Military Strategy', *Global Affairs*, Winter 1993, p. 59.
- ³⁰ 'Wasted fleets. PM: US naval deployments in east Asia unnecessary', *Star*, 23 March 1994.
- ³¹ In 1992, the then head of the Malaysian Armed Forces, Yaacob Mohamed Zain, observed after a tour of China that he did not foresee any regional power 'with the exception of China, that could fill the vacuum left by the US' and that the PRC had the potential to be more 'assertive' in the South China Sea; 'Need for ASEAN to be militarily strong', *New Straits Times*, 14 February 1992.
- ³² Aileen, Baviera, 'China's perceptions of her role in Asia today', *Foreign Relations Journal*, VIII(2), 1993, p. 83.
- ³³ Steven Strasser and Kari Huus, 'A country in search of itself', *Newsweek*, 15 November 1993, p. 16.
- ³⁴ 'Institute: China may break up', *Star*, 11 March 1994; Robert Scalapino, 'A framework for regional security cooperation in Asia', *Korean Journal of Defense Analysis*, V(2), p. 13.
- ³⁵ Bill Powell, 'Asia's power struggle', *Newsweek*, 15 November 1993.
- ³⁶ 'Building bridges: Asia must take responsibility for its own security', *Asiaweek*, 6 July 1994.
- ³⁷ Probably the best exposition on the concept of interdependence in the modern world is that of Robert Keohane and Joseph Nye, *Power and Interdependence: World Politics in Transition*, Boston MD: Little, Brown, 1977.
- ³⁸ Kurus observes that ASEAN economic cooperation has not been the result of perceived direct economic benefits, but has always been prompted by external issues, for example, the fear of economic regionalism by other countries, and the need for a common concern or glue in a post-Cambodian ASEAN; Bilson Kurus, 'Agreeing to disagree: the political reality of ASEAN economic cooperation', *Asian Affairs*, 20(1), 1993.
- It has been noted that ASEAN's instruments for planned regional industrialization, the ASEAN Industrial Projects, the ASEAN Industrial Complementation scheme, and the ASEAN Industrial Joint ventures, were unsuccessful. In so far as the joint production of 'supranational public (or quasi-public) goods, e.g. environmental policies, defence, research and education projects, health care and technical standards, etc', ASEAN has failed to cooperate in any significant way; Hans Blomqvist, 'ASEAN as a model for third world regional economic cooperation?', *ASEAN Economic Bulletin* 10(1), 1993.
- ³⁹ Aaron Friedberg, 'Ripe for rivalry: prospects for peace in a multipolar Asia', *International Security*, 18(3), 1993/94, p. 15.
- ⁴⁰ 'Indonesia content to stay military dwarf', *Business Times*, 7 February 1994.
- ⁴¹ Singapore also concentrated on contingency planning, and a policy of deterrence against its neighbours, during the early years of its independence in the 1960s; see Tim Huxley, 'Insecurity in the ASEAN region', *Whitehall Paper Series*, London: Royal United Services Institute for Defence Studies (RUSI), 1993.
- ⁴² 'Ministry: Singapore was aware of joint exercise', *New Straits Times*, 15 August 1991.
- ⁴³ See Sheldon Simon, 'The regionalisation of defence in Southeast Asia', *NBR Analysis* 3(1), 1992; Suharto's initial dismissal of Mahathir's EAEG (subsequently EAEC) initiative is also telling.
- ⁴⁴ 'Malaysia rejects military alliances', *New Straits Times*, 29 February 1992.
- ⁴⁵ 'Gen explains why we still need defence forces', *Sunday Star*, 21 March 1993.
- ⁴⁶ 'Najib: deterrence is cornerstone of Malaysia's defence doctrine', *New Straits Times*, 13 July 1993.
- ⁴⁷ According to the former navy chief, Admiral Vichet Karunyavanji, although 'Thailand has friendly relations with all its neighbours, especially Asean countries, we cannot afford to be complacent. We need to maintain our military preparedness.' See 'Thailand's navy sails into a new era of security', *The Nation*, 15 February 1993.

⁴⁸ David Denoon, 'Alternative directions for U.S. strategy in the changing Pacific Basin', in James C Hsiung (ed), *Asia Pacific in the New World Politics*, Boulder CO: Lynne Rienner, 1993, p. 178.

⁴⁹ Gray cites four basic conditions for an arms race, see Colin Gray, 'The arms race phenomenon', *World Politics*, 1972, p. 41.

⁵⁰ While ASEAN has acquired significant numbers of relatively hi-tech weapons systems since the mid-1970s, doctrine as well as operational efficiency still leaves much to be desired; see J.N. Mak, 'Armed but ready? ASEAN conventional warfare capabilities', *Harvard International Review* XVI(2), 1994, pp. 20-24.

⁵¹ The ARF, 'established' at the ASEAN Ministerial Meeting in Singapore in 1993, provides for security dialogue among ASEAN and its dialogue partners (the US, Australia, Canada, Japan, New Zealand, South Korea and the European Union), three observers (Laos, Vietnam and Papua New Guinea) and two guests (Russia and China).



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**CBMs AT SEA IN THE ASIA PACIFIC REGION:
MEETING THE CHALLENGES OF THE 21ST CENTURY**

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**NEW TECHNOLOGIES AND THEIR INPUT
TO THE MARITIME BALANCE IN THE
ASIA-PACIFIC REGION**

**By
CAPT. JACK MCCAFFRIE, RAN
DEPARTMENT OF DEFENCE
AUSTRALIA**

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NEW TECHNOLOGIES AND THEIR INPUT TO THE MARITIME BALANCE IN THE ASIA-PACIFIC REGION

INTRODUCTION

Technology has always been an important factor in military strategy and there is a host of classical cases of its application in strategic affairs. One can consider the ancient Egyptians, using bronze weapons, beaten by an enemy with harder iron swords.¹ More recently, and more appropriately, in the late 1850s developments in shipbuilding, steam engines and gun design were making it very dangerous to engage in battle with wooden sailing ships.² One of the issues of greatest concern in contemporary times has been the relatively recent advent of rapid technological change.

For centuries, the rate of technological innovation had been so slow that the continuity of weapons systems has been more conspicuous than their transformation. Consequently, the galleys used by the Christians and the Ottomans during their Mediterranean wars as late as the 16th century were not much different to those used by the Greeks against Xerxes in 480 BC.³ Similarly, the ships of the line that fought at Trafalgar in 1805 were easily recognizable as the class of ship developed by Henry VIII in the early part of the 16th century. In effect, revolutionary change, such as the change from oars to sail at sea in the 16th century did not take place at all frequently before the 19th century.

The onset of the industrial revolution meant that by the middle of the 19th century long periods of technological continuity were a thing of the past: the age of continuous change had arrived. It still prevails and shows no signs of weakening.⁴ For most of this century improvements in maritime technology have been associated with, and generally limited to, the major powers; those with the industrial and economic capacity to develop or buy advanced weapons at such a rate as to remain abreast of technological advances. In recent years, however, this trend has been interrupted. Continuing developments in military technology, especially in the maritime environment, have become available to lesser powers, and this has been apparent in Asia - Pacific to a very significant degree. At this point I should explain that by Asia-Pacific I mean the area bounded by the lines joining India, Japan and New Zealand.⁵ For completeness in a security sense one might also include Pakistan.

Although it is a very recent phenomenon in parts of Asia - Pacific, the reasons for the introduction of ever more sophisticated military equipment seem to be generally consistent throughout the region. Since 1945 many regional states have gained their independence and so have become legitimate customers for weapons, not least because of the resultant more complex sets of relations existing among them.⁶ For many years, however, the preoccupation of a number of the newly independent states was with internal security which meant that little attention was paid to maritime forces or emerging maritime weapons technology.⁷

But, as internal stability has been achieved by virtually all regional nations, those previously looking inward have begun to consider external security issues. In many cases this has meant becoming engaged in maritime issues and developing maritime forces.⁸ For most regional countries which were not producers of maritime weaponry this also meant becoming dependent on an ever more willing arms industry, eager to trade in any part of the world.⁹ It also meant that where rivalries continued to exist comparative levels of technology

became crucial.¹⁰ The associated desire to stay abreast of if not ahead of neighbours, the result not only of rivalry but also of the search for status, has been evident in the recent widespread capability upgrades being undergone by regional navies and maritime air forces.

With this background the paper will now address the new technologies themselves before assessing their consequences for the regional maritime balance.

NEW REGIONAL MARITIME TECHNOLOGIES

Before assessing the impact within the region of the introduction of new maritime technologies we need to be clear as to just what they are, the extent to which they have been introduced and by whom.

Precision Guided Munitions

One of the technologies having the greatest impact on maritime warfare and on capabilities in Asia - Pacific (as elsewhere) is highly accurate precision guided weapons.¹¹ At present there are already over 300 surface combatants in East Asian navies armed with modern anti-ship missiles (ASMs).¹² Using a variety of homing devices including lasers, radar, optical tracking, and scene-matching correlation, bombs or missiles can be launched from short or long ranges "to impact with great precision on targets of small dimensions, whether they are stationary or mobile"¹³. ASMs, for example, have greatly complicated the problem of defending ships because such missiles are almost invariably small, fast moving and low flying. Understandably, the same kinds of technologies have been applied to countering the threat posed by PGMs in the maritime arena. The result is an expanding array of anti-missile missiles; themselves small, very fast and exceptionally manoeuvrable.

PGMs are in widespread use within Asia - Pacific; some of the most popular maritime versions being Harpoon, Exocet, Gabriel, Sea Eagle and Maverick ASMs. The ASMs listed are in service variously with the navies and maritime air forces of Singapore, Malaysia, Indonesia, Thailand, Japan, ROK, Taiwan, India, Pakistan the USA and Australia.¹⁴ Weapons of similar capability but of Russian or Chinese origin are also at large, specifically in the forces of China, Russia, Thailand, Pakistan, Bangladesh and India. Defensive weapons of similarly advanced technology are less widely available; being restricted thus far to the navies of the USA, Australia, India, Pakistan, China, Japan.¹⁵

Propulsion Systems

Although they are far less glamorous than PGMs improved propulsion systems for both weapons and platforms has been crucial - not least in the development of the PGMs.¹⁶ Small jet engines and high density propellants in particular have been integral to the progress of ASMs. Also important, however, has been the major advance in warship propulsion systems. For example the introduction of gas turbine engines has assisted regional navies to come to terms with advanced technology relatively quickly and eliminate the heavy commitment to highly skilled manpower needed to run steam turbine powered ships.

The navies of Australia, the USA, India, Thailand, Malaysia, Indonesia and Japan among others have benefited from this. These navies, and others have also benefited from the availability of diesels in surface warships. Overall,

these advances have brought into service weapons and platforms with greater speed, range, and fuel efficiency and at the same time, reduced heat sound and radar signatures as well as crew numbers. Thus while these maritime platforms and their weapons can engage and expect to hit targets at quite long ranges they are also providing more difficult targets themselves. The contradiction is evident but no less real for that. The matter of minimizing signatures will be taken up later in the paper.

More Effective Conventional Warheads

Among the new conventional (or non-nuclear) weapons with potential in the maritime arena, and likely to feature in regional arsenals, if they do not do so already, are fuel-air explosives,¹⁷ fast and long range torpedoes, and more destructive conventional explosives. Fuel-air explosives could be important to anti - shipping or anti-mining operations, and packing a "punch" even greater than that of ASMs seem destined to make destruction a most likely outcome whenever a "hit" can be achieved. The potential of ASMs was demonstrated in the Falklands War, where even an unexploded Exocet created sufficient fire damage to cause the loss of a ship.¹⁸

We also need to consider the possible introduction to the region of non-nuclear weapons of mass destruction such as chemical or biological weapons-of which so much was expected during the 1991 Gulf War. While these warheads may not yet be available to our most immediate neighbours there is no doubt that those who produce them are willing to sell to any likely customer.¹⁹ Missiles with these warheads could be used in anti-shipping roles or could be used in strikes from ships or aircraft against land targets.

More Efficient Surveillance, Target Acquisition and Identification

Satellites represent the latest word in detecting, locating, identifying and tracking targets, at sea and elsewhere.²⁰ At present, however, they are available for military purposes almost exclusively to the major powers. At the same time, a number of regional nations do have domestic satellites used for information broadcasting to their own and other populations. The step up from this to military satellites cannot be too big to contemplate. Already the use of satellite navigation and communications is quite widespread among maritime forces in the region. But, even without this capability regional nations can develop a significant capacity to monitor the movement of ships and aircraft in their vicinity through systems like Over The Horizon Radar (OTHR). These systems, including Australia's, have the capacity to detect and track aircraft, large cruise missiles, surface shipping and possibly fast-moving targets on the ground at ranges between 800 and 3,200 kms, or further.²¹

An associated weapons system is the Airborne Early Warning and Control (AEW&C) aircraft. Use of AEW&C is likely to be more widespread in Asia-Pacific because of cost and the technological development challenges involved in satellites and OTHR. Singapore and Japan have already acquired it.²² Thailand has expressed interest in the capability and there are reports of India adapting HS-748 aircraft for the role.²³ Further, Australia has been agonizing for years as to whether it should acquire some form of AEW&C aircraft.²⁴

The widespread interest in advanced technology surveillance in Asia-Pacific is indicative of its importance for maritime operations. This comes from the need for surface naval forces to be capable of detecting and identifying all targets

of interest in their neighbourhood. The attributes of the weapons already described give some indication of the necessity for surface ships to have the maximum warning of incoming threats. A vital issue for naval forces in the region is whether land based air forces can provide this warning.

In quite a different category, but for much the same purpose, is long range passive sonar arrays fixed on or above the seabed, or towed behind ships.²⁵ Australia is developing towed arrays,²⁶ as no doubt are most of the other advanced maritime forces in the region. The most important consequence of all of these weapons systems is that being able to hide on the modern battlefield is becoming more and more difficult-especially in the air and sea environments. Clearly, as regional nations gradually gain access to such technology their neighbours will also see the benefits, and more importantly they will see the disadvantages of being without them. One could argue that no surface warships will be able to survive in future without the ability to see constantly over the horizon and act on the information provided.

Sophisticated Command, Control, Communications and Intelligence (C3I) Systems

Greatly expanded automatic data processing capabilities are the main reason for the exponential growth in the importance of command control communications and intelligence. Battles have always been won with superior application of this information. The same is even more the case today when the amount of information available to any commander is more than he can cope with. The point is that with advanced sensors able to provide so much information there must be equally advanced ways of interpreting and presenting it so that it appears to the decision maker in a timely, orderly and unambiguous way. While some maritime forces in Asia - Pacific have come to terms with this new demand, others have begun to and others still have as yet been unable to take advantage of it.

A regional nation which has taken advantage of C3I developments is Singapore with her AEW&C aircraft, the capacity of which to greatly extend the radar horizon of surface forces and coordinate and control many aspects of maritime conflict give her and Southeast Asia perhaps, a potential advantage over any regional adversary. Singapore also has a sophisticated traffic management system (CIMOS) for the Port of Singapore. Malaysia on the other hand, in constructing a chain of radar sites to control shipping in the Straits of Malacca, is showing that she too appreciates the possibilities of C3I. Those regional nations which have not yet responded to the demands and advantages of modern information technology are held back more by physical hurdles, finance for example, than by any lack of appreciation of the possibilities.

Also noteworthy, now, in the region is the growing realization of the importance of integrated national command centres and joint force headquarters.²⁷ Japan, South Korea and Singapore have begun to act on this notion and in time others will undoubtedly follow.

Force Multipliers

The term "force multiplier" can be used to describe any military capability which can extend the performance of a weapons system without the need for additional weapons platforms. Air-to-air refuelling is one of the most widely accepted force multipliers and is quite rapidly gaining acceptance in the maritime forces of the region. Already, the forces of Australia, Indonesia,

Singapore, and New Zealand to a limited degree, have taken advantage of the range enhancing features of AAR.²⁸ Other systems which could fall into this category include comprehensive logistics systems, and multi-role weapons platforms (noting the inherent limitations of this approach). To some degree many regional nations are exercising options which will give them force multipliers. The main advantage of doing so is to increase the value inherent in any particular weapons system.

Systems Still To Come

Expectations of continuing strong economic growth combined with the evident desire of regional nations to attend to external security needs and the end of the Cold War will almost certainly see more modernization of existing maritime force capabilities and the introduction of new ones-new to this region at least. We can expect a trend towards ever more sophisticated weapons systems although most nations will lag significantly behind the very few capable of producing their own weapons, and many will forego the introduction of some weapons, seen as being either too expensive and complex or unnecessary.

Stealth aircraft could fall into this category for many years yet. Yet, as was argued by a senior RN officer in 1988 "stealth" was becoming more significant, above and below the oceans' surface as it introduced the possibility of sensors and weapons with shorter effective ranges. He also argued that future engagements would become more localized and characterized by late detections and minimum reaction times.²⁹ In effect what CDRE Cobbold was saying was that the ability of various weapon platforms to reduce their radar, thermal and sonic signatures would reduce the ranges at which even advanced sensors would detect, identify and track them.

Nevertheless, we can expect to see more conventionally powered submarines in Asia-Pacific. Singapore, Thailand, Indonesia, and Malaysia are reported to have expressed interest in them,³⁰ while other nations, already operators, like South Korea, can be expected to update capabilities.³¹ With the proliferation of anti-shipping missiles mounted in submarines and a variety of other platforms there is a growing need for defensive measures. The Australian/US developed NULKA offboard decoy has potential in this regard³² and it, or some similar system must be considered likely for regional naval combatants in the relatively near future.

Amphibious forces are also being upgraded in Asia-Pacific. Japan for example, is considering introduction of a new class of LST with superstructure offset to starboard in the style of an aircraft carrier.³³ While the symbolism will be lost on few the addition to the JMSDF of such a vessel, even with its very limited helicopter embarkation potential points to some relaxing in Japan's approach to weapons with an offensive potential. Australia too, is in the throes of improving its amphibious capabilities, even if the selected method is not an example of new technology.

To conclude this section, one can assume that we will continue to see new weapons technologies introduced to Asia-Pacific. Revelations that Singapore is investigating the purchase of Patriot air defence systems from the US³⁴ are indicative of this-even if the issue is divorced from maritime technology. The limited capacity of many regional nations to respond to any such activity may see the introduction of new technologies, themselves relatively simple and low cost, such as ballistic missiles with any variety of non-nuclear warheads.³⁵

THE IMPACT OF NEW TECHNOLOGIES ON THE MARITIME BALANCE

Asia-Pacific is a vast region and so there is an inherent difficulty involved in discussing "a" maritime balance. There is a number of maritime balances which can be addressed. Further, they need to be addressed in a particular context; that of the end of the Cold War, the elimination of the Soviet Union (Russia now) as a major military power in the region and the reduction, however gradual, of US military presence in the region.³⁶ The existing balances include those between India and Pakistan, China and other regional powers or partnerships, Japan and the region, and Australia and Southeast Asia. There are other more localized balances which will not be examined because of time constraints. Yet, even before examining these balances there are some other issues warranting comment.

Owning and Operating High Technology

There can be an expectation that because a nation acquires high technology weaponry it therefore has the capacity to operate and support the equipment to its limits. On the one hand, Asia-Pacific nations capable of producing their own high-technology maritime weapons will have an inherent advantage over others in this respect. The capacity to produce will to a great extent bring with it the capacity to maintain-although the two processes are not the same. Consequently, industrially and technologically developed nations in the region will have this capacity to support virtually every weapons system, purchased or produced locally, totally or to a great extent.

On the other hand, some Asia-Pacific nations will acquire maritime weapons systems either without the capability immediately to operate them to their potential or more importantly without the ability to support them except with extra-regional help. As Australia has learnt, reliance on others for logistics support can raise doubts in the minds of some, no matter how inherently reliable the supporting partner seems.³⁷ This issue could acquire even more significance if a nation finds itself introducing more than one example of high technology at one time. Malaysia's proposed introduction of the MIG-29 and F/A-18 is an excellent example, especially as both aircraft have maritime applications.

Even with reliable and comprehensive support most nations will need at least four or five years to become thoroughly familiar with a new weapons system. At this point they will have begun to be innovative in operating the equipment and will have a strong core of experienced operators and support specialists. Without a significant degree of support this, perhaps ideal, point may never be reached. Even with the necessary support, if it comes from another nation, any feeling of satisfaction should be tempered by the need for and dependence on such reliance.

Self-Sufficiency

Much has been made of the time needed for any military force to become thoroughly familiar with new technology weapons systems. As has been suggested if there is significant reliance on other nations for support-maintenance or training-the time taken to achieve operational status may be extended. There is of course another issue. Reliance on another nation can involve additional complications-witness Pakistan's problems with the US Congress' Pressler Amendment, effectively prohibiting the transfer of US military technology to that country.³⁸

The maritime implications in this particular case have included the return to the US of a number of warships, and a turn to the UK for provision of replacements. This in turn has created the need for training and maintenance support for a new-or at least different-technology and with it cost and time penalties as Pakistan's Navy adjusts to the British equipment. Much the same kind of difficulties could confront Malaysia with its two new fighter aircraft-each of which will have a maritime role.³⁹ For a developing country (even a rapidly developing one) to introduce one of those types would have been a worthy challenge; but to introduce both simultaneously will certainly be worth watching.

8x F/A-18
18x M, C, 2

Cost

Another determining factor in the introduction and maintenance of new technologies is the cost of doing it. Even while the debate rages as to whether there is an arms race in the region^{40,41} and while new technologies are finding their way into the arsenals of the region the modernizations are relatively limited in scope. Most regional nations spend relatively small sums on defence⁴² and remain constrained in the extent to which they can dabble in new technologies. As an example, Malaysia's purchase of its new fighters is in very small numbers; eight F/A-18s and 18 MIG-29s. Yet even the F/A-18 purchase will cost up to M\$ 2 billion.⁴³ Similarly, while Malaysia has expressed a desire to buy submarines, limits to available finance will determine when the acquisition takes place and will certainly limit the number of vessels.⁴⁴

Cost has another barb, too. Equipment acquisition projects are rarely so well funded that they allow the purchase of every desired item in the quantity proposed. This being the case, there is often a temptation to fund platforms and weapons at the expense of support equipment and training. Whenever this temptation is yielded to a consequent reduction in the capacity of the operating service to use the weapons system to its fullest advantage follows; yet another example of the proposition that to own a weapons system is not necessarily to operate it.

The Outlook

As Asia-Pacific nations proceed with economic development they can be expected to continue acquiring new military technologies⁴⁵ and to show interest in acquiring capabilities not previously possessed. Some regional nations, however, will be limited by the growing cost of technology and by the virtual impossibility of establishing local production (not to mention design) of many desirable items. While this will ensure a continuing reliance on major powers for access to state of the art weapons it will also spur attempts to circumvent the problems.

This desire could be expressed in a search for lower cost options; including for example second hand equipment-accepting the less advanced technologies which would result. Australia's recent F-111 purchase and intent to purchase two 20 year old LSTs from the US are cases in point, as is Malaysia's expressed interest in two of these surplus ships.⁴⁶ The anticipated purchase by the Thai military of second hand AV-8B and A-7E aircraft are other maritime force examples of this trend.⁴⁷

There is also evidence, however, that as some nations continue to acquire maritime force elements at or near the leading edge of technology then other regional neighbours will feel inclined or forced to follow suit-even if the

numbers of weapons purchased is not big. So, while Singapore has a mere four AEW&C aircraft, other regional nations can sooner or later be expected to match the capability if only with fewer aircraft. Already there are suggestions that the Royal Thai Air Force is interested. Similarly, Singapore has expressed the intention to upgrade its fighter and maritime strike capability by purchasing F/A-18s like its neighbour Malaysia.⁴⁸

TECHNOLOGY AND THE MARITIME BALANCE IN ASIA-PACIFIC

South Asia

With the end of the Cold War and the consequent force reductions on the part of the US and the Soviet Union have come more restricted maritime force deployment patterns-especially on the part of the former Soviet Union. In time, if not almost immediately, this will allow regional maritime forces to be seen as relatively more active. It will also result in these regional maritime forces having more influence in their respective regions.⁴⁹

But, just as there are other than maritime influences on the power balance in South Asia, so too, there are influences other than technology on the maritime balance in the sub-region. One of the most significant factors is the maritime ambitions of India and Pakistan. Whereas India has made no secret of her wish, or even need, to be preeminent in the Indian Ocean,⁵⁰ Pakistan has much more modest ambitions; in the words of one commentator, denying India control over its territorial waters.⁵¹ Nevertheless, technology has an important part to play.

Assured access to appropriate maritime technology is Pakistan's greatest problem. If she is to shift the balance, now very much in India's favour, Pakistan will need capable maritime surveillance assets; maritime strike forces, submarines and surface combatants. Although she has a small number of capable maritime surveillance aircraft⁵² efforts to acquire P3Cs from the US have been blocked by US Congressional action.⁵³ A similar problem seems to be dogging her efforts to add to her submarine force, with Britain yet to determine whether Pakistan should be the final home for the RN's surplus Upholder class conventional submarines. In this field, there may yet be recourse to Chinese technology, as in some aspects of Pakistan's surface naval forces there already has been.

A mix of British and Chinese maritime technologies, much of it not at all state of the art, is unlikely to help redress the maritime balance greatly in Pakistan's favour. Additionally, any significant increase in Pakistan's reliance on China for maritime forces is going to present difficulties for relations with India, when the aim would be greater reassurance in the relationship. Assurance in the acquisition of suitable maritime technology will also be problematical for Pakistan because of difficulties in paying for enough of it to make a difference. Pakistan already spends about 7% of a rather modest GDP on defence⁵⁴ and has a number of competing domestic claims for funds.

For India, maintaining the maritime balance in its favour is the issue-noting that its maritime ambitions are broader than this. With two aircraft carriers the Indian Navy is already preeminent among local powers in the Indian Ocean and it has long had plans to maintain this capability. But, the cost of new maritime technology has affected India's plans. Already plans for local building of a 30,000 ton ship to replace Vikrant have been scaled down to a much smaller ship-similar in size to Spain's carrier.⁵⁵ There is further doubt as to whether

this plan can be funded in the time specified by the Indian Navy. Failure to retain the carrier capability would have a major effect on India's naval capabilities-actual and psychological-in the balance with Pakistan and more widely.

The maritime balance would be tipped even further India's way were the IN to acquire nuclear submarines. Although India has had recent experience operating a Russian "C" Class and there are reports of plans to introduce some similar capability no results are expected in the near term. Virtually all of India's shipbuilding activities in recent years have been beset with some problems so it would come as no surprise to see construction of a class of nuclear submarines encounter some delay. Once again, this highlights the difficulties regional countries will continue to face when technologies are not readily available for transfer and local production is contemplated. The funding and engineering problems, especially for high technology items, are substantial.

India has also found that even when technologies are available for transfer there may be difficulties with the reliability of the supplier-in India's case Russia for much of its maritime equipment. Russia has become an unreliable source of supply for weapons and spares.⁵⁶ The alternative of local manufacture cannot simply be turned on like a tap and will take some time before it can fully meet India's needs. India is however one of the few regional nations with the inherent capacity to establish comprehensive and viable arms manufacturing industries. If in the long term it is successful in doing so the regional maritime balance with Pakistan, and more widely, will be swayed perhaps permanently in India's favour because of the reduction in foreign influence over its arms acquisitions.

Local development of an AEW&C aircraft, based on the HS-748 airframe is another manifestation of India's determination to develop its own sophisticated equipment. The relatively limited range and endurance of the HS-748 will restrict it to local operations in the maritime role but the important issue will not be the limits of the aircraft but the development potential of the AEW&C system in it. And however limited the present aircraft platform, if it becomes operational it will provide a defensive warning and control capability unmatched in South Asia and with potential to tip the regional maritime balance even further in India's favour.

Indian maritime ambitions and operations also have the potential to affect the maritime balance in Southeast Asia. The possibility arises from the operational facilities which India now has in the Andaman and Nicobar islands, not very far from the northern entrance to the Straits of Malacca.⁵⁷ Were there to be a dispute over trade routes or perhaps Chinese interest in Southeast Asia-perhaps Myanmar in particular-Indian maritime preponderance would more than balance any advantage some Southeast Asian navies might enjoy in new maritime technologies.

Southeast Asia

India and Pakistan have been at war three times since their independence; talk of a maritime balance between them has, therefore, some semblance of reality. Consideration of a maritime balance in Southeast Asia, on the other hand, has a more theoretical quality because there has been no substantial maritime conflict in the region and there have been many expressions by a range of regional nations pledging resolution of any differences by peaceful means.

Still, there is a view that some ASEAN states still see each other as threats.⁵⁸ And there are intra-regional maritime issues with the potential for creating tension in relationships if not conflict. These include boundary and territorial disputes, and contention over oil, gas and fishing resources. There are also maritime issues with an extra-regional dimension. These include the need to ensure protection of seaborne trade, the reduced superpower presence and again boundary and territorial disputes. So, consideration of the maritime balance in Southeast Asia may have more than just a theoretical quality to it.

Intra-regionally the maritime balance is still evolving, with the continuing introduction of new technologies by many nations, reflecting a growing concern for maritime security. With the benefit of stellar economic performances and still relatively small maritime forces most of the ASEAN partners can take advantage of emerging technological developments in upgrading their maritime forces while avoiding unsustainable costs. Indeed most of them could come to rely on the sometimes legendary attribute of technologically advanced equipment to make up for a shortage of skilled and trained manpower. Singapore is arguably the best regional example of this approach with its AEW&C and AAR aircraft. The former represents virtually the latest in technology, the latter a regional application of a well tried technology. Likewise, Singapore is at the forefront with its recently acquired minewarfare craft and its Victory Class Guided Missile Corvettes which have capabilities normally associated with much larger frigates.⁵⁹

Indeed, Singapore with the advantage of limited geographical areas to defend has the capacity to integrate a fine range of advanced technologies in her maritime forces for air defence or strike purposes. It could be said that Singapore has acquired a "fleet in being" not large enough to contest successfully with greatly superior forces but capable enough to cause substantial damage to superior forces.

Thailand and Malaysia seemingly have similar ambitions, with both nations embarked on significant upgrades of their maritime forces. Thailand with the purchase of an aircraft carrier, even if limited in size, and of STOVL aircraft to complement it is demonstrating an appreciation of the advantages of technology in maritime warfare. Malaysia too with her purchase of advanced fighter and strike aircraft together with more capable surface combatants and eventually submarines seems determined to apply maritime technology to her advantage.

The question continually being asked about the plans of these three nations in particular, is whether their acquisitions will stabilize or destabilize the region. In the context of intra-regional issues each is capable of introducing new maritime technologies, although perhaps at different rates, and each has geographical and political peculiarities which could influence any potential technological advantage. None of these nations, alone or together, could expect to alter the maritime balance in Southeast Asia against China, or any other substantial extra-regional power. As is suggested by the "fleet in being" approach however, singly or together they could present a strong defence of maritime areas against even a significant force.

The other ASEAN nations, Indonesia and the Philippines in particular, are less able to take advantage of technological progress in the maritime sphere and so less able to contribute to any maritime balance in Southeast Asia. Indonesia is somewhat of a paradox with examples of a high tech approach to maritime surveillance in its three Boeing 737 aircraft and a low tech approach to surface

arships evident in its purchase of some 39 craft from the former East German Navy. Neither approach seems to have been problem free.

Indonesia has had difficulty with the surveillance fit in the aircraft and has had them upgraded by Boeing.⁶⁰ Interestingly, now, Indonesia is reported also to be engaging Boeing together with IPTN to offer jointly a low-cost maritime patrol aircraft package based on the CN-235 airframe.⁶¹ On the other hand, this apparently deliberate low cost and low technology approach has run into difficulties with the East German Warship purchase. This, like the CN-235 approach to maritime surveillance seems to be an acceptance of the need for a greater number of relatively less capable platforms to cope with Indonesia's uniquely difficult maritime sovereignty problem. But if recent reports are any guide, the state of these craft and their suitability for Indonesian conditions are questionable. Although Indonesian maritime forces have both Harpoon and Exocet ASMs in service they are some way from being able to present an integrated force in the way that Singapore, for example, can. Furthermore, a recent media report in Australia spoke of a report "highly critical of the ability of Indonesia's armed forces, ABRI, to adapt to technological change and argu(ing) that its operational capabilities are in decline".⁶²

Philippine maritime forces are even less capable of contributing to a maritime balance. With a mix of aged naval surface craft and very few maritime surveillance aircraft their capability is dwarfed by the task of protecting its archipelagic waters. A reasonably recent assessment suggested that it needed up to 100 new ships to guard its EEZ but could afford no more than 38.⁶³ To the extent that available new technologies would assist (the Indonesian CN-235 for maritime patrol aircraft for example) cost could remain a major obstacle for some time. There could also be some difficulties in assimilating new technologies given the "great leap forward" that will be required in any substantial modernization program. This will apply particularly to surface ships-of any kind-and to a lesser degree to maritime aircraft.

For most if not all ASEAN nations some relief from the difficulties faced by maritime defence and the cost of acquiring new technologies could come from sharing surveillance information. Noting that national sensitivities might impede progress in this, it could be done initially by limiting the sharing to unclassified information, relating to say, civil shipping movements, piracy incidents, environmental matters and maritime safety occurrences. The RAN is presently developing a demonstration model computerized database of such information with the intention of making it available to regional maritime authorities. The value of the system would depend on the extent to which regional neighbours were prepared to make their own information available to others. Nevertheless, the system (Strategic Maritime Information System) has real potential for assisting in a range of maritime security issues. Another system with similar potential is the ISIS Malaysia suggestion for a regional Maritime Surveillance and Safety Regime for Southeast Asian waters.

Australia contributes to the regional maritime balance with new technology in other ways too. RAAF P3C patrol aircraft already contribute to regional surveillance. Regular deployments of RAN ships and RAAF F/A-18 aircraft into Southeast Asia are another feature of the contribution which will be measurably improved with the introduction into service of the ANZAC Frigates and COLLINS Class submarines-arguably the most advanced conventional submarine in the world. In time it might also be possible to add an Australian AEW&C capability to the regional surveillance effort. Even more significant would be some regional access to JORN surveillance information.

Any such regionalization of national surveillance assets would need to be a step by step process, so as to take account of national security concerns. Cooperation in surveillance could then become cooperation in other tangible ways, all of which would contribute to maintenance of the regional maritime balance. If such progress proves possible it would also lead to reduced intra-regional potential for tension and conflict, thereby strengthening regional resilience against any external power.

East Asia

China's Navy, nominally at least, is a technologically advanced and technologically dependent organization. It has strategic ballistic missile launching submarines, anti-shipping missiles, conventional and nuclear powered submarines, and shore-based aircraft armed with cruise missiles.⁶⁴ The situation is, however, not quite so straightforward. Many of the Chinese Navy platforms are of relatively old design (the Luda destroyers and Romeo submarines for example) many are known to be non-operational and some are derivatives of other designs—generally Soviet. So, even though they have a total of some 54 destroyers and frigates their capacity to match advanced western maritime technologies is doubtful.

There are other attributes of China's maritime forces which weigh in any consideration of regional maritime balance. It is very much a coastal force with still limited support capacity for distant operations. As well, its maritime reconnaissance and patrol aircraft capacity is limited in numbers if not in capability. Furthermore China does not have a maritime related AEW&C capability. By contrast there has also been enough supposition about the possibility of the PLA-N acquiring an aircraft carrier to cause regional navies to take it seriously, despite Chinese denials.⁶⁵ An acquisition of this kind, despite whatever limitations might apply to it, would significantly change the regional maritime balance.

On the other hand, China has built up an indigenous arms industry capable of adapting relatively sophisticated designs to its own purposes and is undoubtedly becoming capable of designing its own sophisticated weapons. The eventual combination of numbers and greater effectiveness of weapons could swing the maritime balance more and more China's way, not only in East Asia but in other sub-regions, especially Southeast Asia with which China's relations are so important. This would apply especially in coastal areas such as the South China Sea in which China's lack of afloat support would be comparatively less of a disadvantage than it might be elsewhere.

At this point there is no explicit response to Chinese maritime force developments in Southeast Asian maritime force modernizations and improvements. Nor will there necessarily be a Southeast Asian response at all. Undoubtedly, however, there are enough maritime issues in Southeast Asian waters of interest to both China and the region that the Southeast Asian navies will at least have an eye on Chinese maritime capabilities as they embark on their own modernization programs. If the maritime balance in Southeast Asia does at some point necessitate a response to extra-regional pressure then the response will likely need to be coordinated, something which new technologies should facilitate if the political will permits.

The other major contributor to the maritime balance in East Asia is Japan whose maritime forces are the most technologically advanced of Asia-Pacific nations, with the exception of the US. They have a substantial spread of capabilities

for operations within the 1000nm radius of the mainland nominated for trade protection purposes. With AEW&C aircraft, over 60 surface combatants with ASMs and other state of the art systems including AEGIS, large numbers of sophisticated maritime patrol aircraft, and maritime strike aircraft Japan is well placed to protect her maritime interests, if nothing else.

The most significant limitations in Japan's maritime forces are those relating to reach. Quite deliberately, the forces are not set up for extended operations at sea, lacking as they do sufficient afloat support ships. Furthermore, and again consistent with her defensive posture Japan has little or no AAR capability, nor the capacity to operate fixed wing aircraft at sea. Although she could introduce any of these capabilities at relatively short notice-perhaps with the exception of the last-any move in that direction would need to take account of ongoing regional sensitivities.⁶⁶ Such a move would most probably occur as a result of a major reduction of US maritime forces in East Asia in which case it could be managed with the necessary sensitivity.

The other potential major maritime powers in East Asia are Taiwan and South Korea. The maritime forces of both will, however, need to continue the significant modernization now under way to reach this point. Significantly, like Japan, but to a lesser extent, both of these maritime powers are capable of making use of new technologies to sway the maritime balance one way or another. South Korea, in particular, would stand to gain from technology transfer from the US in any of its plans.

CONCLUSION

This paper has argued that technology has always played a substantial part in maritime warfare and that since the Industrial Revolution the pace of technological change has increased relentlessly and shows no sign of slowing. The point was also made that new military technologies are increasingly more available to lesser powers-an important point in Asia-Pacific where greater internal stability and other reasons have allowed more attention to be paid to maritime security.

The paper has also identified the main areas in which maritime technologies are changing; PGMS, propulsion systems, conventional warheads, surveillance, C3I, and force multipliers. In doing so it pointed out that there was a difference between owning and operating high technology equipment, that self-sufficiency was a great advantage and that cost would continue to impede the introduction of the latest weapons in many nations.

In considering the impact of new technologies on the maritime balance the paper has argued that regional maritime forces will play a more prominent part with the superpower navies coping with big cutbacks. It noted the importance of assured access to new technologies for South Asian nations and the cost both of relying on others for supply and of trying to achieve self-sufficiency. The possibility for South Asian maritime forces to affect the maritime balance in neighbouring regions-Southeast Asia in particular-was also highlighted.

Southeast Asia itself has to deal with both intra-regional and the extra-regional maritime balance and the paper has pointed to the need for a regionally coordinated approach to maritime security and the use of new technologies if the balance is to be maintained with extra-regional powers. The value of this approach to resolving intra-regional balance problems was also noted. Notwithstanding the need for a coordinated approach the difficulties in

achieving it in view of the vastly different capacity of individual nations to introduce new maritime technologies must also be considered. The capacity of Australia to contribute to the maritime balance with technology should not be underestimated, given recent developments and her commitment to Southeast Asian security.

In East Asia the maritime balance will be most affected by the change in superpower maritime deployments following the end of the Cold War. Both Japan and China have the potential to be major maritime powers, with Japan far and away the more technologically advanced at present. A significant question in the regional maritime balance is the extent to which material preponderance can balance technological superiority. And an associated one is the rate at which nations like China and South Korea can develop and introduce new maritime technologies.

In summary, new technologies are playing an important part in the maritime balance or balances in Asia-Pacific, an importance which varies with the capacity of individual nations to apply them, the certainty of their access to them and for many of the smaller nations their willingness to coordinate their efforts.

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MALAYSIAN INSTITUTE OF MARITIME AFFAIRS

**CBMs AT SEA IN THE ASIA PACIFIC REGION:
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**2 & 3 AUGUST 1994
MIMA CONFERENCE ROOM
16TH FLOOR WISMA SIME DARBY
KUALA LUMPUR**

**CONFIDENCE-BUILDING MEASURES AT
SEA IN NORTHEAST ASIA :
SOME PROPOSALS**

**By
PROF. SEO-HANG LEE
INSTITUTE OF FOREIGN AFFAIRS AND NATIONAL SECURITY
SEOUL, KOREA**

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Confidence-Building Measures at Sea in Northeast Asia : Some Proposals*

Seo-Hang Lee
(Professor, IFANS)

Security Outlook in Northeast Asia : Mixed Signs

The profound changes over the past few years in the international environment shed new light on the security and economic landscape of the Northeast Asian region. The picture of this landscape, as we move toward the 21st century, is mixed; favorable trends emerge but also ample grounds for uncertainty and insecurity exist.

As to the positive factors, first of all, the end of the Cold War and the dissolution of the Soviet Union have greatly improved the security climate in the region — the immense ideological barrier that gave rise to distrust and hostility among states for decades has collapsed. While this does not necessarily mean that peace has finally arrived, the improvements in relations between states in the region clearly provide new opportunities for the future.

* The views expressed in this paper are strictly those of author and do not necessarily reflect those of the institute to which he belongs.

There is, in addition, growing economic interdependence and an emerging chain of regional economic communities in the Northeast Asian region. The aspiration of virtually all East Asian countries with accelerating their economic development and enhancing their international competitiveness has encouraged them to seek markets, capital, and technology as broadly as possible, and thus to promote cooperative commercial relations with their neighbors. This has also contributed to a reduction of tensions; a normalization of relations, especially between Seoul and Moscow, as well as Seoul and Beijing, and improvement of relations between mainland China and Taiwan.

There are, of course, concerns for insecurity and uncertainty. While the end of the Cold War has certainly improved the world's security environment, peace is still fragile and elusive in Northeast Asia, where Cold War sentiments linger, and regional states retain deep-rooted mistrust and animosity toward their neighbors. Unsettled territorial disputes, military imbalance, regional rivalries and other sources of concern have kept countries on their guard. Moreover, there is the perceived draw-down of the U.S. military presence in the region and the perceived need to prepare for possible, resulting uncertainties. Many countries believe that any diminution of the U.S. commitment to regional stability could create a security vacuum that other major players would be tempted or compelled to fill. A regional arms race and a climate of confrontation is likely to occur in the absence of the unique stabilizing role that the U.S. has

provided. In fact, there is currently a "disturbing trend towards a regional arms buildup" in Asia.¹⁾

Furthermore, North Korea's drive to become an indigenous nuclear power and uncertainties that might arise from leadership transition, the unclear political future in China, and Russia's political and economic difficulties caused by the attempt to transform its system could be additional sources of regional instability in Northeast Asia.

In short, the security outlook in Northeast Asia is "mixed": favorable trends arise but there exist extensive grounds for uncertainty and insecurity.

Maritime Security Environment

As the cold war confrontation has gone away, it is generally acknowledged that the prospect for general or regional war in Northeast Asia and the consequent threat to the security of the sea in the region is rather remote. However, this does not necessarily mean that the threats to the security of the sea cease to exist in the region. The end of the cold war has certainly resulted in the decline of the activities of major naval powers in the region, the United States and Russia. The U.S. has not renewed its lease on the Subic Bay naval base, while the Russian navy has been hard hit by the economic measures imposed over the recent periods. Nevertheless, such developments has led to the rather paradoxical situation where

more navies of regional powers has begun to exert themselves in the regional waters apparently to fill the power vacuum left.²⁾

First, China's naval capability has expanded over the years from a coastal defense role to an ability to project power further offshore. Such capability has assumed greater significance in the South China Sea where the territorial disputes over the Spratly Islands and the Paracel Islets remain unresolved. China has recently pursued a very ambitious programme of naval expansion including a plan to obtain an aircraft carrier, and in February 1992 surprised the Southeast Asian countries by proclaiming a new law on territorial sea that include the Spratly and the Senkakus. These movements indicated that the strategic perspective of China goes well beyond that of mere coastal defense.

Second, it is well known that Japan has the capability in technology and financial resources to go beyond its agreed task of mounting protection of waters within a perimeter of 1,000 nautical miles from the island of Honshu. Japan is reported to modernize its navy including the Aegis destroyer systems, with the addition of one Harushio-class submarine, two Yaeyama-class escort destroyers, and two Yaeyama-class ocean-going mine sweepers. The Japanese navy is also scheduled to acquire another nine land-based Kawasaki P-3C long-range patrol aircraft, bringing the total to 86.³⁾

Third, other regional countries, including Taiwan, two Koreas and most ASEAN countries, are acquiring more powerful naval forces and developing their maritime capability. For instance, the Taiwanese

navy is building twelve Oliver Hazard Perry-class frigates through a technology transfer agreement with the U.S., and buying sixteen Lafayette-class frigates from France.

Causes for such naval arms build-up in the region today no longer stem from ideological conflicts but rather from growing concern with strategic uncertainty and differing national interests, that is the urge to protect or expand a sphere of influence and the fear of losing it. The states concerned thus pay heed to the geostrategic dimension of their rivalries. The result of these trends is that despite the reduction in the US and Russian maritime presence, the maritime security environment in the Northeast Asia region is becoming more complicated. There will be more navies of consequence. Warships will continue to navigate in distant waters in support of national political and economic interests, taking advantage of the exceptional mobility and flexibility of maritime power. The establishment of 200-mile exclusive economic zones and the growing exploitation of the seas, as well as the awareness of the vast unused resource potential of the seas, will increase the need for surveillance. Such activities may lead to dangerous situations and conflicts including an increased risk of incidents between maritime forces, and thus resulting in the potentially unstable maritime environment.

The changing maritime security context certainly provides regional states with a challenging task of how to secure stability from this new form of maritime instability. Indeed, facing the potentially unstable maritime environment, there is a need to develop

maritime confidence-building measures and build a stable maritime regime for the Northeast Asian nations. Maritime confidence building and the development of a stable maritime regime in this region may encourage attitudes of cooperation with political, economic and security consequences beyond the maritime field.

Proposals for Maritime CBMs in Northeast Asia

As noted previously, the recent maritime strategic trends in Northeast Asia call for the serious consideration of maritime confidence building measures(CBMs) to dissipate tensions and make the region more stable. Given the prevalent strategic uncertainty in which countries in the region could feel threatened by each other but the definite causes or motives for conflict are difficult to pinpoint, what is needed is measures designed to reduce the risk of maritime conflicts which could arise from misunderstanding or mis-calculation in unstable strategic environment.

The basic concept of CBMs, which are also referred to as "confidence-and security-building measures(CSBMs)", is to translate the general principles of international law into positive action so as to provide credibility to states' affirmations of their peaceful intentions. Such action amounts to the implementation of measure aimed at:(1) reassuring states of the non-aggressive intentions of their potential adversaries and reducing the possibility of misrepresentation of certain activities; (2) narrowing the scope of political intimidation by

the forces of stronger powers; and (3) minimizing the likelihood of inadvertent escalation of hostile acts in a crisis situation.⁴⁾ In addition, CBMs are considered to be of value in constraining military activities.

However, CBMs do not directly affect the strength of armed forces or arms inventories, but they make less likely the use of force for settling disputes. They may facilitate progress towards disarmament. In this sense, maritime CBMs should be distinguished from measures of naval arms control which presupposes a rather heavier adversarial components than does confidence building. Furthermore, any CBMs should not impair the freedom of states to train and modernize their forces to the extent needed to maintain a credible defense and to react to events which threaten their security. For this reason, any measure which constrains military activities and at the same time has an adverse effect on the security capacity of a state may be difficult to be accepted. Although there has been an extraordinary proliferation of CBM proposals for the Northeast Asian region over the past few years, only a few types of maritime CBMs are conceivable in the region according to the above mentioned criteria. These measures range from exchange of naval information and personnel through to more advanced operational measures such as surveillance cooperation or agreements on the prevention of incidents at sea between naval forces.

(1) Exchange of Information and Personnel

Exchanging information on naval force structure and command organization would be extremely important for assessing the defensive nature of naval forces and the scope of naval exercise, and would be a significant step forward in the field of confidence-building. Another area where the exchange of information may be valid is shipbuilding programmes and the operational status of existing ships. The effect it could have is to prevent naval arms race based on incorrect intelligence. Exchanges of personnel and ship visits would also contribute to removing the grounds for suspicion and mistrust, and to reaching a better understanding of other nations intentions.

(2) Prior Notification of Major Naval Activities

Prior notification of activities such as exercises, deployments and transits may be useful for promoting openness. However, advance information on various activities might also result in other states in conducting similar activities in the same area, and thus trigger incidents which might not otherwise have taken place. Thus it is necessary to structure and notify the exercises in advance in order to avoid unintended incidents.

(3) Observation of Naval Activities

The purpose of observation is to confirm that the notified activity is non-threatening in nature, and that it is carried out in conformity with what has been laid out in notification. However, inviting observers to naval exercises gives rise to many complicated administrative problems. In order for observation to be effective and meaningful, observers should be allowed to spread out among different naval units and meet after the exercise to discuss the scope and purpose of the exercise.

(4) Constraint on Passage of Warships

Although the UN Convention on the Law of the Sea (which will enter into force in November this year) does not prohibit innocent passage of foreign warships or ships in government non-commercial service through the territorial sea, flag states could ensure that, barring exceptional situations, such ships should not normally pass within twelve nautical miles of the baselines of the coastal states. If the passage is necessary for the conduct of peacetime naval activities, the coastal state could be notified in advance. A similar constraint could be suggested regarding all nuclear-powered ships as well as ships carrying nuclear or other dangerous or noxious substances.

(5) Coordinated Participation in UN Register of Conventional Arms

The UN Register of Conventional Arms, which was created by General Assembly Resolution 46/36L of 9 December 1991, requests UN member-states to provide data annually on certain categories of arms(including warships)⁵⁾ imported into or exported from their territory. The Register began to be implemented in 1993 and the experience of the first year of reporting in Northeast Asia has been encouraging. All the regional countries except North Korea have provided data. Hence, if it continues to develop, the UN Register will greatly contribute to enhancing confidence and transparency among mistrustful governments in the region.

(6) Multinational Naval Cooperation (MNCO)

So far, most of the MNCO experience has been with blue water sea assertion operations, usually associated with the protection of shipping. However, most navies in Northeast Asia are optimized for coastal water sovereignty protection or sea denial tasks which are focused on national security and not conducive to multinational cooperation. Therefore, it is a prerequisite for the regional countries to identify a common objective for joint operation. Only after then, the MNCO is expected to have mutual benefits. In the meantime, a lower level of MNCO such as joint port visits and personnel exchange between regional navies is something to be encouraged.

(7) Incidents at Sea Agreement

In the context of post-Cold War Northeast Asia where there is heightened risk of incidents between regional naval forces due to the increase of naval presence in confined waters, the urgent maritime CBM one can think is agreements on the prevention of incidents at sea. The first agreement of this kind was concluded by the US and the Soviet Union in 1972. Known as the 1972 USA-USSR Incidents at Sea Agreements, it was negotiated to avoid the risk of collisions and other dangerous incidents, which had been occurring in increasing numbers when the naval forces of both powers mixed with and watched each other at sea. As the Soviet navy grew during the 1960s, US and Soviet warships became increasingly frequent. The incidents included various dangerous manoeuvres in which ships violated the provisions of the International Regulations for Preventing Collisions at Sea, which govern nautical lighting, maneuvering and signalling procedures to ensure safe navigation. In an attempt to regulate the problems to naval incidents which have the potential to raise US-Soviet tension and the risk of war, the agreement was concluded. The agreement seeks to limit the number and dangers of naval incidents through regulation of dangerous manoeuvres, restriction of other forms of harassment, increased communication at sea, and convening regular naval consultations and exchanges of information.

This agreement has been widely regarded as a success. Since its adoption, the agreement has reduced the frequency and severity of superpower naval incidents while building greater trust and confidence at sea. It is assessed that one of the most critical factors contributing to the successful implementation of the agreement is the common interests of both states in avoiding incidents that could increase tensions and the risk of war. The agreement has subsequently served as the model for several similar bilateral agreements: between the UK and the USSR in 1986; between West Germany and the USSR in 1988; between France and the USSR in 1989; and between Norway and Canada in 1989. It should be also noted that South Korea and Russia signed such an agreement to avoid the risk of collision and other dangerous incidents on June 2, 1994.⁶⁾ Given the apparent success of the US-Soviet agreement, it has been suggested that the similar type of multilateral agreement could be envisaged.

(8) Developing Harmonious and Solid Regional Maritime

To build confidence in Northeast Asia, it is important to enhance the openness and transparency about maritime regime and practice of regional states on ocean affairs. In particular, some states need to make public the accurate baselines and outer limits of their maritime jurisdictions by way of charts or lists of geographical coordinates. The UN Convention on the Law of the Sea in fact requires a party to do this.

In addition, regional states could negotiate agreed understandings regarding those controversial rules of the law of the sea which are inconsistent with the policies of certain states. For instance, the US and Soviet Union in 1989 signed a joint statement on innocent passage of warship in each other's territorial seas.⁷⁾ Attached to the joint statement, the two governments issued the uniform interpretation of the rules of international law governing innocent passage which sets forth in more detail the common interpretation of the UN Convention on the Law of the Sea governing innocent passage in the territorial sea. Similar measures could be taken among regional states with respect to various controversial issues. Considering that several unfortunate incidents that had happened before were mainly due to the uncertainty on such issues, it is important to develop more harmonious and solid maritime regime.

Conclusions

In the post-Cold War Northeast Asia, there is definitely a need to remove the grounds for suspicion and mistrust, and to reach a better understanding of other countries' intentions. In view of the importance of maritime issues in regional security and the emphasis recently given by regional states to maritime capabilities, naval activities deserve special attention as a potential source of regional security. Maritime CBMs can certainly help in this field. In fact, navies, by virtue of their inherent international nature, are in a better

position for dialogue and cooperation than other arms of military forces, and maritime CBM is therefore a quite feasible option worthy of serious exploration.

Northeast Asia is a region which lacks the habit of dialogue and mutual consultation on security issues among states. In this region, maritime confidence building measures could have enormous rewards if they could be put into practice. Maritime confidence building may encourage attitudes of cooperation with political, economic and security consequences beyond the maritime field.

Bilateral and multilateral naval dialogue and cooperation for maritime CBMs would reduce uncertainty in maritime security environment of Northeast Asia, which will in turn significantly enhance the security of the region. Moreover, multilateral cooperation for maritime CBMs could be a realistic starting point toward the eventual multilateral cooperative security regime in Northeast Asia. Security dialogue and cooperation among the Northeast Asian countries, which Korea has been supporting, could begin with the main emphasis placed on maritime CBMs.

Footnotes

- 1) Gary Klintworth, "The Asia-Pacific : More Security Less Uncertainty, New Opportunities," ANU Strategic and Defense Studies Center, Working Paper No. 240(November 1991), p. 1. For more information on regional arms buildup in East Asia, see Andrew Mack and Desmond Ball, "The Military Build-up in Asia-Pacific," Pacific Review 5(No. 3, 1992), pp. 197-208 and Michael T. Klare, "The Next Great Arms Race," Foreign Affairs 72(Summer 1993), pp. 136-152.
- 2) Sam Bateman, "Prospects for Dialogue and Cooperation Between Asia/Pacific Navies," ANU Peace Research Center, Working Paper No. 127(February 1993), p. 2.
- 3) Wendy Lambourne, "Asia/Pacific Arms Watch," Pacific Research 5(August 1992), p. 14.
- 4) Jozef Goldblat, Arms Control : A Guide to Negotiations and Agreements(London : Sage Publications, 1994). p. 4.
- 5) According to the UN Register of Conventional Arms, warships refer to a vessel or submarine with a standard displacement of 850 metric tonnes or above, armed or equipped for military use.
- 6) Agreement between the Government of the Republic of Korea and the Government of the Russian Federation Concerning the Prevention of Incident at Sea beyond the Territorial Sea.
- 7) The text of the statement is found in Ocean Policy News (September/October 1989).



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**CONFIDENCE BUILDING
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THE CHALLENGES AHEAD -
SOUTHEAST ASIA**

**By
CAPT. RUSS SWINNERTON
ROYAL AUSTRALIAN NAVY**

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The Challenges Ahead - Southeast Asia**

Investments In Confidence, Dividends in Trust.

Captain Russ Swinnerton RAN

Introduction.

This paper deals with the challenges for the region in future. I want to draw attention to the issue of thresholds in confidence- and trust-building measures. There is a certain level of trust and confidence required before many CBMs can be implemented. But once implemented, they repay a dividend in increased trust and confidence that more than justifies the investment.

The majority of the CBMs discussed in this paper deal with soft issues, and could be implemented now. This is not to say that the patterns and habits of communication introduced through these CBMs will only generate soft advantages and benefits, however. There is also the hard advantage of interoperability to be gained by regional defence forces. The patterns of

communication and experience of combined operations gained would be invaluable should a higher-order contingency arise.

Introduction To The Region: Southeast Asia

Southeast Asia has its share of maritime areas of tension and dispute:

Table 1: Maritime Stress Points¹

- * Competing claims to the Paracel Islands (Xisha Quandao or Quan Doa Hoang Sa) in the South China Sea, contested by China and Vietnam.
- * Competing claims to the Spratley Islands in the South China Sea, contested by China, Vietnam, Brunei, Malaysia, Taiwan and the Philippines.
- * Boundary dispute between Indonesia and Vietnam on their demarcation line on the continental shelf in the South China Sea, near Natuna Island.²
- * Boundary dispute between China and Vietnam on their demarcation line on the continental shelf in the Gulf of Tonkin.

¹Table 1: Sovereignty, Legitimacy and Territorial Conflicts in East Asia', in Russ Swinnerton and Desmond Ball, *A Regional Regime for Maritime Surveillance, Safety and Information Exchange*, (Strategic and Defence Studies Centre, Australian National University, Canberra, Dec 1993), Appendix 1.

²'Indonesia invites Vietnam to Resolve Boundary Dispute', *Jakarta Post*, 27 July 1992, p. 1 and 'Jakarta Hopes to Settle Sea-Border Issue with Hanoi', *Straits Times*, 5 June 1993, p. 11.

- * Boundary dispute between Malaysia and Vietnam on their off-shore demarcation line.
- * The dispute between Malaysia and Singapore over ownership of the island of Pulau Batu Putih (Pedra Branca - or Horsburgh Light), some 55 km east of Singapore in the Straits of Johore.³
- * The competing claims of Malaysia and Indonesia to the islands of Sipidan, Sebatik and Ligitan, in the Celebes Sea, some 35 km from Semporna in Sabah.⁴

I would add to this list the additional 'stress point' of the Malacca, Lombok and Sunda Straits, the confluence of shipping lanes that are so vital to the economic well-being of more than just the Southeast Asian region. It is only a potential stress point, but one on which it is easy to exert pressure. It carries the potential of becoming a choke point.

The extent and nature of the region's economic growth is now accepted wisdom. The role of shipping in this development has been elaborated elsewhere,⁵ but two particular economic aspects deserve elaboration, amplifying the point about the archipelago as a potential stress point.

Firstly, the increased role of shipping has lead to the development of extensive shore infrastructure to accommodate increased volumes of trade.

³'Malaysian State Claims Island', *Asian Defence Journal*, 10/91, pp. 92-93; 'Singapore Welcomes Malaysia's Offer of Talks on Disputed Islands', *Asian Defence Journal*, 11/91, pp. 113, 116; and N. Balakrishnan, 'Tangled Ties: Island Issue Looms Large in Malaysia-Singapore Row', *Far Eastern Economic Review*, 2 July 1992, p. 21.

⁴P.K. Katharason, 'Indonesia Detains Our Boat Off Sipidan', *The Star* (Kuala Lumpur), 11 July 1991; and 'Row Over Islands Will Not Dampen Ties: Malaysian Minister', *Indonesian Observer*, 4 February 1992, p.2.

⁵Russ Swinnerton, 'Navies and the Protection of Peaceful Shipping', *Australian Defence Force Journal*, No. 103, Nov/Dec 1993, pp. 21-26

In the case of container shipping for example, Singapore is poised to become the world's largest port (after coming a close second to Hong Kong in 1993), with container units handled in the first quarter of 1994 showing an increase of 8.5% over the same period last year.⁶ The region is also becoming increasingly important as a source of crews, and for ship maintenance. This increase in infrastructure represents a significant capital investment. It demonstrates a further measure of the importance of shipping to the region, and a further economic interdependency in addition to the obvious cargo-carrying, trade aspect.

Secondly, the nature of ship ownership and operation is changing, with lower margins and low freight rates forcing greater competitiveness:

"Sixty percent of ocean trade now moves in ships flying Flags Of Convenience. Shipping is a small industry, but its effects upon nations and the division and redivision of the world economy are disproportionally large and decisive. Well over 85% of world trade is sea-borne; the value of exports is about one quarter of World Domestic Product and double the proportion thirty years ago.⁷

The movement of money off-shore is mirrored in the development of Flags of Convenience fleets. Paradoxically, this weakening of traditional nation-state control over shipping is seen by some commentators as offering new opportunities for greater international cooperation: "an unintended consequence [of FOCs] may be a move toward a new order and a United Nations flag for international maritime commerce."⁸ Such a development,

⁶Port of Singapore Authority (PSA) has reported 32,735.9 TEUs handled in the first quarter 1994, against 30,180.7 in 1993. 'Singapore poised to challenge Hong Kong as world's top container port', *Sarawak Tribune*, 20 June 1994, p. 15.

⁷*The International Political Economy of Pacific Island Flags of Convenience*, Anthony B. van Fossen, Australia-Asia papers No 66, (Griffith University, Brisbane, Dec 1992), p. 5.

⁸*Ibid.*, p. 2.

of an international flag, is unlikely to follow. But the need for international cooperation to guarantee trade is even more important in this increasingly under-regulated environment. This alone justifies cooperation in safeguarding sea lines of communication, and the establishment and maintenance of trust and confidence: trusting allies will cooperate to safeguard their cargoes (and not just their own flag shipping), and cooperating for SLOC protection will itself promote trust and confidence.

The region, too, has its share of traditions of goodwill and cooperation, which balance the potential trouble-spots. The ASEAN way of dealing with problems is viewed as a strength, minimising the necessity for multilateral cooperation. It is ASEAN that provides for the investment of confidence and trust that will in turn permit the dividends of greater trust and confidence from the application of CBMs.

The current rearmament the Southeast Asian countries sits somewhat uncomfortably with the benign view of a cooperative region. Although many commentators have been at pains to point out that we are not witnessing an arms race in the Southeast Asian sub-region, it may be more true to say we are not yet witnessing an arms race. As the relevant economies grow, so a fixed percentage of government outlays can fund increasingly more ambitious purchases. This process is helped by the increasing availability of sophisticated equipment and sophisticated-equipment salesmen (often with government backing) who are moving into the region with greater confidence and marketing aggression as the requirement for their products in Europe diminishes. It isn't an arms race, say the commentators, it is a modernisation. It isn't an arms race, certainly, until the competitive aspect becomes prominent. But won't competition become a factor when the modernisation brings with it significantly

advanced characteristics? After a regional acquisition of an advanced medium-range air-to-air missile (AMRAAM), perhaps, or a large number of Main Battle Tanks? Or an effective submarine force?

Regionally-Relevant CBMs

There seems broad agreement on the agenda of CBMs to be considered.⁹ Paul Dibb describes the principal elements as Trust Building and Information-sharing (contrasting with the Cold War concepts of Confidence Building and Transparency), but the concepts are largely the same.¹⁰ He identifies areas of information, based on sensitivities, as follows:

1. Areas where information sharing is not possible:

- * intelligence sources and methods;
- * surveillance targets;
- * detailed performance characteristics of weapon platforms, their actual operational deployments and availability;
- * detailed characteristics of weapons delivery systems (for example, tactical missiles) and their support measures (electronic, software);
- * levels of military readiness and sustainability, including specific details of war stocks of ordnance;

⁹Suggested lists are included in a number of works. Professor Paul Dibb cites the following in his draft of the Australian Policy Paper commissioned by the 1993 ASEAN PMC SOM, 'Practical Proposals For Security Cooperation in the Asia-Pacific region', unpublished, Apr 1994: *Comprehensive Study on Confidence-Building Measures*, UN Centre for Disarmament, Report to the Secretary General, 1982, and Hall, D., Grant, R., and Wanandi, J., (Eds.), *Security Cooperation in the Asia-Pacific Region*, (Centre for Strategic and International Studies, Washington DC, 1993), pp. 20-21.

¹⁰Australian Policy Paper 'Practical Proposals For Security Cooperation in the Asia-Pacific region', unpublished, Apr 94, p. 2.

- * research and development in support of classified military capabilities, including the adaptation and modification of weapons for uniquely national requirements.

b. Possible information-sharing measures:

- * strategic dialogue, including the exchange of strategic assessments;
- * strategic policy, military doctrine, national military aims;
- * orders-of-battle and main characteristics of major platforms;
- * acquisition plans for new weapon systems;
- * historical data on weapons acquisitions, including from local production, assembly or imports;
- * data on military exercises (size and participants) and on major military deployments or movements;
- * data that will help the monitoring of the movement of illicit drugs and refugees, and transnational environmental hazards;
- * oceanographic and hydrographic research, information on shipping routes and hazards, mapping and charting.¹¹

The Phased Approach

In implementing the possible, Paul Dibb proposes a phased approach based on the achievability of the measure:

Short term:

- * Limited exchange of military information
- * A regional Security Studies Centre

¹¹ibid., pp 3-4.

- * A Maritime Information Data Base
- * Strategic Planning Exchanges
- * Observers at military Exercises
- * Peacekeeping Training

Medium Term:

- * Maritime Cooperation
- * A Regional Arms Register
- * Notification of Major Military Deployments
- * A Multilateral Agreement on the Avoidance of Naval Incidents (INCSEA)

Long Term:

- * Consideration of more formalised trust-building measures, for example collaborative environmental security arrangements, the establishment of zones of cooperation in contentious geographic areas, and regional maritime safety and surveillance cooperation agreements.¹²

Focussing on the sea

Coming at that analysis from a different direction, we can consider the activities of maritime forces in the region divided into hard and soft lists - that is, the kinds of hard activities that navies will only practice together in an environment of considerable trust, and the soft list, that they will join with fewer security concerns:

¹²ibid., Table 1

Contentious common roles:

- * Preparations for war at sea, including both offensive and defensive postures, practiced in high-level exercises and training activities.
- * Early warning surveillance & patrol (with information-sharing).
- * Patrols against cross-border illegal traffic in arms, drugs, people, etc.

Non-contentious (soft or small 's') roles in common:

- * Sovereignty protection (visit/resource patrol against third- country and some (agreed-illegal) second-country targets)
- * SAR
- * Pollution emergency assistance
- * Counter-sea crime (including piracy) & terrorism.
- * SLOC protection against a third-country threat
- * Research and information collection, processing and management

This gives another arbitrary division, between the easy (or likely-to-succeed) and the hard (or less-likely) CBMs that might be appropriate now or in the future at sea. In preparing for these roles, cooperative activity could take the following forms (drawing on what is already being achieved):

Ready-to-run examples:

- * An expansion of existing bilateral exercise programs to include multilateral exercise activity.

- * Where cooperative development of off-shore resources is being contemplated, cooperative patrol & surveillance arrangements can be implemented. (eg Australia/Indonesia Joint Patrol Agreement in Timor Gap Joint Development Zone).
- * Cooperative Search and Rescue agreements (for exercises and hand-over arrangements regarding responsibilities near the median line) - eg Australia/Indonesia Joint SAR Agreement. Contingency planning and exercises to deal with major maritime disasters on high seas routes in South China Sea and strategic straits. (SAR and marine pollution control).
- * Information exchange of public-sourced information (eg WPNS Information Exchange Directory, and Strategic Maritime Information System Prototype currently under development by Australian Defence Science and Technology Organisation).
- * Jointly-funded and conducted scientific research (such as the AIDAB-funded Current Metering Experiment, collecting current data from the Malacca Strait throughout the Indonesian Archipelago, part of the ASEAN-Australia collaborative Regional Ocean Dynamics Project (ROD)).
- * An INCSEA-style conference, with attendant benefits for the navies of the region.

Possible future roles:

- * 'Open Skies' (including coverage of off-shore resource areas and islands)
- * High Seas Patrol - Establishment of a regime of high seas enforcement in support of pelagic fish stocks, piracy etc.
- * Cooperative surveillance and patrol in support of 'peacetime' SLOC protection, such as cooperative patrol and reporting to assist identification of 'rogue' (non-conforming) shipping in areas of traffic separation schemes and high traffic density.
- * Assistance with shared water use regulation and control, including surveillance and reporting - possibly in support of tourism (including sailing and water sports), underwater archaeology, fishing.
- * Dealing with change - establishing a framework to recognise and take action in a rapidly changing environment.

CBMs, Opportunities and Obstacles: Building on Existing Cooperation

While there is general agreement (at least in Second Track fora) on the kinds and desirability of CBMs, there has been less attention devoted to their practical application, to consider what obstacles exist to their development, and to suggest strategies to deal with the obstacles.

Exercises

Exercises between navies in the region tend to be largely bilateral. Whilst bilateral exercises are better than no exercises, multilateral exercises are better still. The inclusion of large force levels generally encourages navies' resource managers to commit more target services and ammunition.

Larger forces also provide a much richer training environment - every evolution is complicated by the size of the group. Operations are harder, and ships' teams learn more. While some activity may not be directly relevant to SLOC protection, the confidence and teamwork developed through participation in such exercises are invaluable for the development of competence.

What is not necessary in the development of a multinational exercise is a political scenario. Planners of maritime exercises should begin now to structure their exercises around specific training activities rather than supporting higher-order 'defence of the realm' concepts. This not only introduces greater rigour into the process of setting aims and objectives for exercises (and demands quantifiable means for measuring their achievement), it also greatly reduces the political sensitivity of the activity. In this way, regional forces may be able to increase their participation in limited multilateral activity conducted around a concentration of target services. It would make economic sense to do so.

Cooperative Patrols

Where joint development of off-shore resources is undertaken, cooperative patrol arrangements such as the Australia/Indonesia Joint Patrol

Agreement in the Timor Gap Joint Development Zone can be implemented in ways that help establish habits of cooperation and communication. Such arrangements also facilitate combined contingency planning for dealing with threats to security in the resource exploitation area. These arrangements have been largely bilateral to date, because joint developments have been bilateral, but there is nothing in the model that should inhibit the development of a multilateral regime in an area of multilateral development, such as the Spratleys.

Cooperative SAR

While international Search and Rescue procedures are governed by international agreements, specific national operating procedures do show slight differences. These are not large enough to prevent international cooperation, but they are large enough to justify exercising at the interfaces between national areas of responsibility. The process of sharing national Standing Operating Procedures (which amplify internationally-agreed procedures), of preparing exercise schedules, and of actually conducting SAR exercises is a useful, non-sensitive way to build habits of communication and trust between forces within a region. Some specific naval SAR activities, such as submarine search and rescue (SMASHEX) can also be exercised in productive ways.

Information-sharing

Increasingly, information is being regarded as a commodity that is owned by someone, protected by copyright or licence arrangements. This limits the ease with which information can be shared. Questions of licence or

copyright must therefore be considered at an early stage in the development of any information-sharing activity.

Traditionally, the exchange of information from classified sources has been free from such sensitivities. But more and more, the application of modern information-management techniques is revealing just how much value can be gained from publicly-available data. National naval headquarters are already more-or-less competent managers of information, and are able to analyse, deduce trends, and propose action. Associations like the Western Pacific Naval Symposium (WPNS) offer a useful starting point for an international network for surveillance, safety and information exchange: the change from symposium to communication network is a manageable step. For the community of navies in the region, it would also provide the framework to deal with higher-order conflict should it ever arise.

Details of commercial shipping movements, for example, are available in near-real-time at a price. The application of modern information management techniques to this data could analyse trends and make the results available to strategic planners, industry representatives and governments. The Australian (Department of Defence) Defence Science and Technology Organisation has begun research in this area to prepare a Strategic Maritime Information System (SMIS) prototype.

SMIS has the potential to act as a distributed data-base allowing input of one's own national open-sourced data in return for access to a central bank of the collected information. Using hypermedia techniques, the data-base can combine text, graphics (including hydrographic or cartographic images - charts and maps), video, and photographs. The applications could include merchant shipping information, long-term navigation warnings, Lloyd's

data, trade statistics, port information, and wire-service media information.

SMIS data could be complemented by naval staff assessments, as an example of a way of exchanging views on the significance of trends revealed by the analysis of the data. Noting trends in the digital convergence of information media, the provision of a multi-media communication terminals within naval headquarters, with direct access to other headquarters, would also allow easy transmission of a variety of other information as confidence in the system developed. Program information, exercise and visit proposals, and 'what-if' game-playing are some of the uses that suggest themselves. SMIS would be a way to give effect to the proposals already made by the WPNS.

The sharing of surveillance information from open sources is likely to be more easily achieved than the establishment of cooperative surveillance arrangements *per se*. This is not meant to be dismissive of the possibility of a regime of surveillance cooperation in the region, analogous to the existing situation in the South West Pacific, where under the umbrella of the Niue Treaty, combined surveillance programs are developed to make best use of scarce surveillance resources. The South West Pacific though is a simple surveillance problem made difficult only by its size: targets are generally extra-regional distant-water fishing vessels, which the South Pacific Forum countries (and their Forum Fisheries Agency) collectively view as the legitimate object of surveillance. It is a different situation in Southeast and East Asia, but this doesn't detract from the problem of limited resources and the advantages of cooperation.

Cooperative Scientific Research

It is easy for practitioners to forget that hydrography is also a science, and that the region's hydrographers have been cooperating for many years under the auspices of the International Hydrographic Organisation. It is this cooperation that convinces mariners to have confidence in their hydrographic product - the chart - to the limit of its stated reliability, wherever it is acquired, and from whatever sources it is drawn. It is a confidence-building measure from the days before the term was invented.

Other opportunities exist, for fostering oceanographic and other science studies at sea. The AIDAB-funded Current Metering Experiment, is a good example, collecting current data from the Malacca Strait throughout the Indonesian Archipelago, as part of the ASEAN-Australia collaborative Regional Ocean Dynamics Project (ROD):

Current Metering Experiment. A major multi-national study into the ocean dynamics of the ASEAN straits may hold the key to climate patterns in the Southeast Asian and Pacific regions. The Current Metering Experiment (CME) is gathering detailed information on the flow of ocean water and transfer of heat between the Pacific and Indian Oceans, in particular the extremes associated with the El Niño Southern Oscillation (ENSO). ... The experiment will have both immediate and long-term benefits for the ASEAN-Australia region, and globally, particularly in enabling governments and industry to plan for and better manage the impacts of climate change and climate variability. This has the potential to save billions of dollars in industries as diverse as agriculture, tourism and health.¹³

Data collection and limited analysis are also possible activities for the region's maritime forces. The collection of bathymetric and meteorological

¹³ASEAN-Australia Marine Science Project, Regional Ocean Dynamics, Current Metering Experiment brochure, available from Australian Marine Science and Technology Ltd, PO Box 341, Curtin ACT 2605, Australia.

data during routine cruises can be made available internationally to support research.

Incidents at Sea Agreement

In times of tension, there is considerable value in regular meetings as a way to encourage dialogue. This is shown by the success of the US/Soviet Incidents at Sea Agreement which managed to be effective in the difficult years of the Cold War after 1971. It is not a model for cooperation between regional navies in Southeast Asia for its usefulness in preventing incidents. It was created in a period of tension, when forces were engaged in aggressive manoeuvring, when bridge-to-bridge communications were much less reliable and effective, and when the collision regulations were even more ambiguous than they are today. Its value lies in the usefulness of its formulation of regular meetings of professionals in a politically-neutral environment directed towards ensuring safety at sea.¹⁴

As suggested elsewhere, a regionally-based Incidents style agreement could cover the following activities:

- * entry into the national territory (internal waters and territorial sea and airspace above) of the other party unintentionally or through force majeure;
- * a uniform interpretation of the rules of innocent passage;
- * the restriction of maritime areas to particular areas;
- * minimum distances of approach;
- * the potentially harmful use of lasers;

¹⁴Thomas B. Allen, 'Incidents at Sea', *US Naval Institute Proceedings*, Sep 1990, p.40.

- * potentially harmful interference with command and control networks; and
- * communications provided to avoid or resolve peacefully any activity covered by the agreement.¹⁵

The existing pattern of Western Pacific Naval Symposium Workshops already provide a forum for working-level exchanges between officers of the region's navies. (Working-level exchanges are characterised by less golf and more work.) The WPNS Workshops offer a framework that could be conveniently developed into a regional INCSEA agreement. The subjects already under discussion in the workshops include some of those listed above.

Open Skies

The Open Skies Treaty was signed in Helsinki on 24 March 1992 by twenty five members of NATO and the former Warsaw Pact, to allow controlled short-notice aerial surveillance of signatory states to provide information, and hence, reassurance.¹⁶ The treaty was not intended to be limited to northern Europe and North America. On the contrary, it was written in a way to encourage its adoption in the remainder of the world.

The regime allows short-notice aerial surveillance flights *without restriction* provided rules are followed regarding permitted photographic resolution and the carriage of observers. The information gained from

¹⁵Desmond Ball, *Building Blocks For Regional Security: An Australian Perspective on Confidence and Security Building Measures (CSBMs) in the Asia/Pacific Region*, (Canberra Papers on Strategy and Defence No 83, Strategic and Defence Studies Centre, Australian National University, Canberra, 1991), p. 69.

¹⁶John Hawes, *Open Skies: Beyond 'Vancouver to Vladivostock'*, (The Henry L. Stimson Centre, Washington, 1992), p. 1.

these flights is strategic, not tactical. It will allow the observer to identify tanks, but not weapon systems, laser rangefinders, communications fits, active armour, and so on. The drive to open up national borders for short-notice inspections (over, presumably, the objections of the military) was to bring all countries (including the satellite 'have-nots') to the same standard of overhead photographic imagery as Russia and the US (the 'haves'). The result is an equitable CBM of the first order.

At sea, of course, outside territorial or archipelagic waters, unlimited surveillance flights are already possible, with the only limitations being safety and politeness in terms of the proximity of approach. Where Open Skies has applicability at sea is in areas under resource development, particularly if open to dispute, such as the Spratleys. A variation of Open Skies in the maturity of a viable Spratleys compromise for shared development might allow the establishment of a cooperative surveillance regime where the information is shared, along with the task of flying sorties.

High Seas Patrol And Enforcement

Navies traditionally assume a role in the protection of SLOC at the higher end of the conflict spectrum, with cooperation deriving from the political will to commit maritime forces to a particular operation. A case can also generally be made for international navy-to-navy cooperation (in areas such as information exchange, high-seas patrol) in the suppression of violence at sea, from criminal, terrorist or war-like activity.¹⁷

¹⁷CDRE W.S.G. Bateman, 'Sea surveillance, Marine Safety and Information Exchange' presented at Eighth International SLOC Conference, Bali 24-27 January 1993.

But navies have always had an independent role in policing the high seas, beyond the jurisdiction of coastal states, in pursuit of pirates, slavers and mutineers. With the increasing interdependence of trade and the diminished responsibility of countries of registry, the navy's role of high seas patrol and surveillance (and subsequent information management) should be extended to other examples of criminal activity, including negligence and incompetence. And I would argue that the execution of these roles is innocent, in terms of its intent towards the legitimate business of a coastal state. All navies share a number of duties of surveillance and enforcement on the high seas. These duties could be carried out with much closer cooperation in terms of programming and information management.

We may also not be too far away from consensus on the necessity for providing resource control and protection on the high seas beyond the limits of EEZs. This is not really a concern for Southeast Asia, because the region's EEZs overlap, but in areas such as the Pacific and North Atlantic, there may be no other way to impose controls to prevent the extinction of some species of fish, and to control pollution. The frustration at the lack of high seas control has lead Sea Shepherd Society environmental activist Paul Watson to buy a submarine in order to defend whales from attacks by Norway's whaling fleet.¹⁸ It adds a new dimension to anti-submarine warfare.

'Peacetime' SLOC Protection

In practical terms for ships at sea, the extension of a navy's charter to cooperate for peaceful SLOC protection could be manifested in a number of

¹⁸Norway sells sub to wanted environs activist', *New Straits Times*, 21 Jun 94, p. 22.

unthreatening ways in all sea regimes, including during innocent passage, as extensions of the mariner's customary duties and obligations. These could include: a policy of regular environmental sampling and the development of expertise in pollution countermeasures (enabling ships to provide 'first-aid' in environmental disasters in the same way they respond in search and rescue); attention to and reporting of sub-standard bridgemanhip, particularly where flagrant breaches of the International Regulations for Preventing Collisions at Sea are concerned; assistance to shore controllers in identifying rogue shipping in areas of vessel traffic systems; and a willingness to share information of significance to all sea users. From such a beginning, the international community may develop a perspective which recognises these activities as non-threatening to the legitimate, safe and economical use of the sea, and promote their adoption within the territorial waters of all states without concern for precedent.

The International Maritime Law straits transit regimes and doctrines of innocent passage seem to be inhibiting the development of new ways of thinking for dealing with environmental problems.¹⁹ Governments and their legal advisers have concerns for establishing precedents that may act to their disadvantage later, undermining traditional sovereignty.

The Niue Treaty signed by the South Pacific Forum countries stands as something of an exception and an innovation in this regard. This treaty provides a framework within which bilateral agreements can be (and now have been) enacted to allow ships and aircraft of one signatory state to enforce fisheries laws within the EEZ of another state. The apparent surrender of sovereignty in this case has been forced on the small Pacific

¹⁹Linda Starke discusses the concept of developing new ways of thinking to deal with environmental issues in Linda Starke, *Signs of Hope*, (Oxford University Press, Oxford, 1990), pp 137-160.

Island Countries by the enormous size of their EEZs, the tiny resources for surveillance, patrol and response available to them, and the largely extra-regional nature of the threat (the distant-water fishing nations of the north). Notwithstanding that, the sovereignty issue is dealt with bilaterally by the signatories to the treaty, by agreement between states, and by contractual safeguards. The patrol and response enforcers become *de facto* officers of the home state for the period of their duty.

It can be argued that the suitability of such a treaty to the circumstances of the South-West Pacific, and the inappropriateness of the model for Southeast Asia, is bound up with notions of the extra-regional nature of the threat to fisheries in the South-West Pacific. In Southeast Asia, the economic crimes and criminals are primarily (but not exclusively) intra-regional. But environmental countermeasures and actions against rogue shipping should be targetted against perpetrators of crimes against the entire region: sovereignty should provide no sanctuary.

The Indonesia-Singapore Cross-Border Patrol Agreement for dealing with piracy is also a useful precedent in that it allows hot pursuit across national borders, but does not allow arrest or boarding in the other's territorial sea. In practice, the agreement works because of the relatively small sea area covered and the relatively large number of response vessels available. If a similar bilateral agreement was to be negotiated over a much larger area, then reciprocal rights of visit and arrest would need to be negotiated. It remains of interest because of its subjugation of innocent or transit passage regimes, for non-innocent hot pursuit in certain defined situations.

Such treaties or arrangements can only be negotiated between trusting partners, and they would serve as a further confidence-building measure for the forces actually engaged in the cooperative activity. So whilst there is an investment of confidence required, there is also a benefit, or dividend in confidence accrued.

Shared Water Use

The development of competencies for water use management will be one of the significant challenges for coastal states in future. The requirement for control extends from the seaward limit of the EEZ to the headwaters of the rivers that carry abnormal quantities of pollutants and nutrients as by-products of development and changed land use. Maritime policy-makers in the region must address the problems of shared use in a holistic, coherent way, and the subsequent regimes of control must be consistent with that of their neighbours.

Navies can play a part in patrol and control, because they already possess the ability to cooperate. They already provide the means for neighbours to share tasks and activities.

Dealing With Change

Navies in general must acquire, in this era of change, the ability to monitor change, and change themselves to suit. There are no excuses now to be preparing to fight the last war. Navies, and defence forces more generally, must adapt to the new world. In doing so collaboratively through shared experience, by investing their confidence in order to build trust, they will

gain additional advantages. I suggest the following indicators of the cultural change that is necessary:

- * Military education must no longer be an oxymoron. Leaders and decision-makers must possess strategic oversight, the ability to recognise patterns and opportunities in complex situations, and not be lost in detail through thinking at too low a level. (This latter failing is characteristic of small- and medium-sized armed forces, where promotion normally rewards success at unit level, rather than anticipating the demands of strategic thinking.) This ability is not necessarily learned in strictly technical training. Reciprocal invitations to attend post-graduate courses or higher-level senior staff colleges should continue, provided national institutions are also ready to embrace change.
- * Command and control structures must be adjusted and 'flattened' to recognise the advantages of modern information management systems which allow non-spatial collocation, real-time communication, improved situational awareness, and 'expert' decision-making assistance. One can no longer solve C² problems by creating additional headquarters: rather, we must disband the unnecessary ones. Combined operations coordinated between respective strategic/political level headquarters must be thought through in advance, and if possible exercised.
- * Defence must cease being either a marginal or a central part of a nation's (or a region's) security outlook. Security must be recognised as multi-dimensional, and defence forces must be part of the whole, not the whole of a part. Navies (as I have suggested elsewhere in this

paper) must recognise the challenges that exist in support of certain peace-time activities, particularly those activities that offer opportunities for cooperation.

Conclusion

I have suggested in this paper that a certain level of confidence in regional partners is necessary before confidence-building measures can be introduced, and once introduced, the measures then contribute to enhancing trust. Whilst this may seem to be something of a circular argument, it is restating the principle that the time to establish habits of communication designed to reduce tension is at times when there is no tension. When conflict looms, there is no time to talk, and the patterns of communication established may assist in preventing tensions arising in the first place.

At present, in Southeast Asia, there is a significant reservoir of confidence between countries, notwithstanding the existence of several stress points in the maritime environment. By taking advantage of this circumstance, the investment of confidence in cooperative activity and information-sharing will provide the expected dividend of increasing trust for the future.

It is a dividend safe from inflation, that will continue to earn even if the Southeast Asian market turns volatile. In fact, it will then be at its most valuable.

Ends