

ITEM FOR FINANCE COMMITTEE

GENERAL REVENUE ACCOUNT

HEAD 122 - HONG KONG POLICE FORCE

Subhead 603 - Plant, vehicles and equipment

New item "Replacement of marine craft for Versatile Maritime Policing Response"

CAPITAL WORKS RESERVE FUND

HEAD 708 - CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Hong Kong Police Force

New Subhead "Central command system for Versatile Maritime Policing Response"

Members are invited to approve new commitments of -

- (a) \$345,262,000 under Head 122 Hong Kong Police Force for procuring 42 marine craft as part of the Versatile Maritime Policing Response; and
- (b) \$99,753,000 under Head 708 Capital Subventions and Major Systems and Equipment for installing a central command system for the Versatile Maritime Policing Response.

PROBLEM

In view of the passage of time and changing marine policing needs, the like-for-like Launch Replacement Programme (LRP) is no longer cost-effective and will not be able to meet present-day requirements. As a major international port and to be in line with the international trend, Hong Kong should also seek to enhance our port security and response capability.

/PROPOSAL

PROPOSAL

2. We consider that a new Versatile Maritime Policing Response (VMPR) strategy would better suit our operational needs and ensure the safety of Hong Kong waters. The Commissioner of Police, on the advice of the Director of Marine (D of M) and the Director of Electrical and Mechanical Services (DEMS), and with the support of the Secretary for Security, proposes to create two new commitments at a total cost of \$445,015,000 to implement VMPR by setting up a central command system (CCS), and replacing 68 existing craft of the Marine Police with 42 new craft to form part of a smaller and more versatile fleet.

JUSTIFICATION

The Existing Operating Strategy of the Marine Police

3. The Marine Police is responsible for maintaining the integrity of 191 kilometres of our sea boundary, 1 651 square kilometres of coastal and port area, and 262 islands within the Hong Kong Special Administrative Region. The Marine Police currently has a fleet of 147 craft and a total disciplined and civilian staff establishment of 2 660. It performs a wide range of duties, which include maintaining law and order at sea, patrolling the sea boundary, and assisting in the enforcement of immigration control, maritime safety, search and rescue operations, etc.

4. The existing operating strategy of the Marine Police requires the deployment of a sufficient number of large and radar equipped craft to form an interlocking ring of radar coverage around the sea boundary. Given the limited radar range of individual craft, 24 craft^{Note} are currently required to safeguard the integrity of the sea boundary. These large craft are supplemented by a fleet of smaller craft which patrol inshore areas and the port. This mode of operation has proven to be effective over the past years in dealing with the various maritime problems and crimes, such as mass illegal immigration from the Mainland, influx of Vietnamese boat people and traditional coastal smuggling activities. However, this strategy necessitates the deployment of a significant number of large craft and crew to cover the entire sea boundary. Moreover, the last few years have witnessed the increasing use of faster and more agile craft by criminal syndicates, which has rendered law enforcement relying on the existing police fleet increasingly difficult.

/Review

^{Note} Including 22 patrol launches, and two barges at Deep Bay.

Review of the Launch Replacement Programme

5. Following the deliberations of the Panel on Security on 4 March 1999 (see paragraph 35 below for details), we have been pursuing like-for-like replacements under the original LRP. The Finance Committee (FC) approved funding in April 1999 for the replacement of the first batch of vessels, viz. six Damen Mark I patrol launches. The next batch of vessels due for replacement would have included 14 Damen Mark III and seven Harbour Patrol Launches (HPLs), which have served for 21 and 18 years respectively. As advised by the Marine Department (MD), the normal serviceable lives for these craft is 18 to 22 years and hence there is an imminent need to replace them. It would not be cost-effective for these aged craft to continue operation as engine replacement would be required upon their reaching the end of their serviceable lives and the estimated unit cost for one engine would have been some \$4 million.

6. In view of the passage of time and changing marine policing needs, the Hong Kong Police Force (HKPF) has taken the opportunity to undertake a comprehensive review of the cost-effectiveness and operational efficiency of the LRP. As part of the review, the HKPF has examined the practices overseas and assessed the Marine Police's operational needs in maintaining the safety and integrity of Hong Kong waters.

The International Ship and Port Facility Security Code

7. Subsequent to the terrorist attack on 11 September 2001, the International Maritime Organization has reviewed the security of global merchant shipping. This led to the implementation of the mandatory International Ship and Port Facility Security Code in July 2004, which is applicable to Hong Kong. Under the Code, governments must enhance the security of international marine traffic and ensure that they have an adequate response and contingency capability. Though Hong Kong is already in compliance with the minimum requirements by virtue of the Merchant Shipping (Security of Ships and Port Facilities) Ordinance (Cap 582), as a major international port and to be in line with the international trend, we should continue to enhance our port security and response capability.

Versatile Maritime Policing Response Strategy

8. In the course of our review, an alternative approach, VMPR, has been identified. We consider that it will be more cost-effective than the LRP and at the same time better meet the current and future operational needs of the Marine Police in discharging its duties. VMPR comprises two major components, viz. the CCS

/and

and a fleet of smaller and more versatile marine craft. The CCS will serve to monitor offshore waters and co-ordinate all marine operations. The system will involve an integration and modification of the existing land-based radar system of the MD with seven sets of newly installed daylight cameras and thermal imagers. The CCS will monitor the majority of the sea boundary by detecting a target on the radar and observing the target with either the daylight cameras or thermal imagers. For blind spots not covered by the CCS, police craft equipped with radar and camera systems will be deployed.

9. We propose to decommission 68 out of the existing fleet of 147 craft, including 14 Divisional Patrol Launches, seven HPLs, six Inshore Patrol Craft and 41 Launch/Barge Tenders. We propose to replace them with 42 craft, as follows -

- (a) two Barge Operating Platforms (BOPs);
- (b) 17 Medium Patrol Launches (MPLs), including four to be put on docking and training reserve; and
- (c) 23 Divisional Fast Patrol Craft (DFPCs), including five to be put on docking and training reserve.

In other words, the overall fleet size will be reduced by 26 craft, from 147 to 121. A breakdown of the 68 decommissioned craft and the provisional deployment plan of the craft for the five divisions under the Marine Police are at Enclosures 1 and 2. For the 68 decommissioned craft, we will retain the serviceable parts as spares for future use. We will then, in line with established procedures, arrange for commercial disposal of the remaining parts, where appropriate.

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10. VMPR must be implemented as a whole package, in particular the two major components, i.e. the CCS and a fleet of small and versatile craft, must go together for the strategy to function and achieve its intended objectives.

11. The MD and the Electrical and Mechanical Services Department are content with the VMPR strategy from the point of view of launch and technical design respectively. The Standing Committee of Government Craft also agreed in June 2004 the replacement of craft under VMPR. The relevant advisory bodies, including the Port Area Security Advisory Committee, Provisional Local Vessel Advisory Committee and Maritime Industry Council, are all supportive of VMPR.

/Benefits

Benefits

12. With the CCS and a more versatile fleet in place, the Marine Police will be able to mount a co-ordinated response by swiftly and flexibly deploying the new fleet of smaller craft to carry out operations. The craft to be procured under VMPR will be able to travel as fast as 45-50 knots against the 25 knots for the present large craft. They will be equipped with advanced technological systems (e.g. differential global positioning system, automatic vessel location equipment and thermal imager system) to meet the Marine Police's operational needs. The capability of the HKPF in coping with criminal activities and other incidents such as emergencies and maritime accidents will be much enhanced.

13. In addition, the implementation of VMPR will entail a net recurrent cost savings of \$86,246,000 per annum, being \$98,448,000 for expenditure on staff responsible for manning the craft and the CCS, involving a net deletion of 212 posts (details in paragraphs 29 and 31 below), offset by an additional maintenance cost of \$12,202,000. The deletion of the 212 posts can be absorbed through natural wastage and will not give rise to any surplus staff. Besides, if we implement the original LRP to replace 14 Damen Mark III and seven HPLs, the capital cost for the replacement on a like-for-like basis is estimated to be about \$840,000,000. Implementation of VMPR, which requires a total capital cost of \$445,015,000, represents a cost avoidance of \$394,985,000 for procuring craft under the original LRP.

FINANCIAL IMPLICATIONS**Non-recurrent Expenditure**

14. In consultation with D of M and DEMS, we estimate that the implementation of VMPR will require a total non-recurrent expenditure of \$445,015,000, broken down as follows -

/(a)

				\$'000	\$'000
(a) CCS					99,753
(i) daylight cameras and thermal imagers				45,000	
(ii) preparation work				29,200	
(iii) control equipment				17,500	
(iv) miscellaneous				2,000	
(v) payment to the Electrical and Mechanical Services Trading Fund (EMSTF) for project management				6,053	
(b) Craft					345,262
	(A)	(B)	(C)	(A)+(B)+(C)	
	2	17	23		
	<u>BOPs</u>	<u>MPLs</u>	<u>DFPCs</u>		
	\$'000	\$'000	\$'000		
(i) basic vessel	18,100	211,691	46,740	276,531	
(ii) thermal imager system	8,424	23,692	-	32,116	
(iii) electronic navigation equipment	921	7,976	6,416	15,313	
(iv) communications and information technology (IT) equipment	929	6,956	5,313	13,198	
(v) project implementation	1,326	5,100	1,678	8,104	
	_____	_____	_____		
	29,700	255,415	60,147		
Total					445,015

15. On paragraph 14(a)(i) above, the estimate of \$45,000,000 is for the acquisition of seven sets of daylight cameras and thermal imagers, the associated mountings, stabilisers, control units, networking equipment and operational spares.

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16. On paragraph 14(a)(ii) above, the estimate of \$29,200,000 is for site preparation work at remote sites and the Marine Police Headquarters, including improvement of site security, upgrading of existing microwave equipment at camera sites, modification of the existing radar system for interfacing into the CCS and installation of a data transmission network.

17. On paragraph 14(a)(iii) above, the estimate of \$17,500,000 is for the acquisition of the control and networking hardware and software, including operator console workstations, radar displays, control centre wall display and recording and playback facilities.

18. On paragraph 14(a)(iv) above, the estimate of \$2,000,000 is for the acceptance test, inspection and training of maintenance staff.

19. On paragraph 14(a)(v) above, the estimate of \$6,053,000 is for payment to EMSTF for project management.

20. On paragraph 14(b)(i) above, the estimate of \$276,531,000 is for the hulls and engines of two BOPs, 17 MPLs and 23 DFPCs. BOP is a 30-metre dumb lighter built in steel, installed with tough fendering on one side and a pontoon on the other side. MPL is 17 metres in length and built in aluminium. It is installed with heavy duty, high-power diesel engines to generate a maximum speed of 45 knots which enables fast and reliable response to calls for assistance. DFPC is ten metres in length and built in aluminium. It is installed with heavy fendering for conducting checks on suspicious vessels in rough sea conditions. They are powered by two 4-stroke outboard engines.

21. On paragraph 14(b)(ii) above, the estimate of \$32,116,000 is for the acquisition of thermal imager systems on two BOPs and five MPLs, one each for the five divisions under the Marine Police.

22. On paragraph 14(b)(iii) above, the estimate of \$15,313,000 is for the acquisition of electronic navigation equipment such as radar, electronic charts and satellite positioning units for two BOPs, 17 MPLs and 23 DFPCs. The equipment enables safe navigation of craft in all weather conditions.

23. On paragraph 14(b)(iv) above, the estimate of \$13,198,000 is for the acquisition of communications equipment (such as broadcast systems and warning equipment), radio communications equipment (such as mobile radios and handheld radios), messaging equipment, IT equipment (such as notebook computers and printers) and audio and video equipment.

24. On paragraph 14(b)(v) above, the estimate of \$8,104,000 is for the assembly and installation of electronic navigation equipment onto the new craft, acceptance test, inspection, and training of maintenance personnel including government dockyard engineers, surveyors and HKPF personnel engaged in frontline maintenance and documentation of maintenance manuals.

25. The estimated cash flow is as follows -

<u>Financial year</u>	<u>Cash flow</u> \$'000
2005-06	3,710
2006-07	49,044
2007-08	205,747
2008-09	124,284
2009-10	62,230
Total	445,015

Recurrent Expenditure

26. We estimate that the recurrent expenditure arising from the project is \$420,249,000 per annum as from 2011-12. This will be fully offset by the annual savings of \$506,495,000 from the maintenance cost of the 68 decommissioned craft and the staffing resources required to man the decommissioned craft. The project will bring about a net recurrent cost savings of \$86,246,000 per annum. Detailed breakdown is as follows -

/(a)

		2008-09 \$'000	2009-10 \$'000	2010-11 \$'000	2011-12 and onwards \$'000
(a)	Maintenance of the CCS	300	6,908	14,016	14,016
(b)	Maintenance of craft	-	44,057	64,917	76,489
	(i) two BOPs	-	3,896	3,896	3,896
	(ii) 17 MPLs	-	20,402	34,287	45,859
	(iii) 23 DFPCs	-	19,759	26,734	26,734
(c)	Staffing resources for manning new craft and CCS	93,087	329,744	329,744	329,744
	Sub-total	93,387	380,709	408,677	420,249
<i>Less</i>					
(d)	Maintenance of 68 decommissioned craft	28,623	78,303	78,303	78,303
(e)	Staffing resources for manning 68 decommissioned craft	93,870	428,192	428,192	428,192
	Sub-total	122,493	506,495	506,495	506,495
	Total	(29,106)	(125,786)	(97,818)	(86,246)

27. On paragraph 26(a) above, the estimated annual expenditure of \$14,016,000 is for CCS maintenance, site maintenance and data line rental.

28. On paragraph 26(b) above, the estimated annual expenditure of \$76,489,000 is for the maintenance of the hulls, engines, thermal imager systems and electronic navigation systems and the fuel costs of the two BOPs, 17 MPLs and 23 DFPCs.

Encl. 3 29. On paragraph 26(c) above, the estimated annual expenditure of \$329,744,000 is for the staffing costs of 736 posts to be created for manning the new craft and the CCS. Enclosure 3 sets out the breakdown of the posts by rank and by year of creation.

30. On paragraph 26(d) above, the estimated annual expenditure of \$78,303,000 is for the maintenance of hulls and engines and the fuel costs of the 68 craft to be decommissioned under VMPR.

Encl. 4 31. On paragraph 26(e) above, the estimated annual expenditure of \$428,192,000 is for staffing costs of 948 posts to be deleted upon decommissioning of the 68 craft and the implementation of VMPR. Enclosure 4 sets out the breakdown of the posts by rank and by year of deletion.

IMPLEMENTATION PLAN

32. We plan to implement VMPR fully by March 2010. The proposed implementation plan is as follows -

Activity	Target completion date
Design, tender specification and documents	
- two BOPs, 17 MPLs and 23 DFPCs	December 2005
- CCS	January 2006
Tendering	
- two BOPs, 17 MPLs and 23 DFPCs	April 2006
- CCS	June 2006
Tender evaluation and award of contract	
- two BOPs, 17 MPLs and 23 DFPCs	September 2006
- CCS	January 2007
Commissioning of two BOPs, six MPLs and 17 DFPCs	March 2008
Commissioning of CCS	September 2008
Commissioning of six MPLs and six DFPCs	March 2009
Commissioning of five MPLs	March 2010
Full implementation of VMPR	March 2010

- Encls.
1 & 5
33. Enclosures 1 and 5 set out the replacement schedule of the craft involved and the changes of the Marine Police fleet upon implementation of VMPR.

OTHER PROPOSALS CONSIDERED

34. The alternative would be to rely on the like-for-like LRP. However, as mentioned in paragraphs 4 and 5 above, this is not cost-effective and will not be able to meet current and future policing needs.

BACKGROUND INFORMATION

The Original Launch Replacement Programme

35. On 4 March 1999, the Panel on Security discussed a paper entitled "Replacement of Marine Police Launches". The paper put forward the HKPF's proposal for an LRP which aimed to replace 35 marine patrol craft ultimately when they reached the end of their serviceable lives, in a phased manner over a period of 17 years. The Panel supported the HKPF's proposal, and funding for the first batch of replacements, which involved six Damen Mark I patrol launches, was subsequently endorsed by the FC on 23 April 1999 vide FCR(1999-2000)2.

Consultation with the Legislative Council Panel on Security

36. We consulted the Legislative Council Panel on Security on the proposal on 15 April 2005. Members were generally supportive of the VMPR concept. They raised some issues, including statistics to justify the resources needed for marine policing, adequacy of fleet and manpower for the Marine Police after the reduction in resources, and occupational safety and health of Police officers on fast vessels.

37. In response, the Administration pointed out the following -
- (a) The relevant statistics including crime figures, patrol areas and duties of the fleet were set out in the supplementary briefing notes provided to Members before the Panel meeting on 13 April 2005. VMPR was proposed after an extensive review and justifications for individual craft had been fully examined and established. Manpower requirements would be further reviewed during implementation.

/(b)

- (b) The Marine Police had constantly reviewed the adequacy of operational support. With the CCS and the versatile craft, the Marine Police could carry out their operations such as intercepting suspicious craft promptly, efficiently and with adequate resources.
- (c) A working group had been formed within the Marine Police to identify training and other improvements to occupational safety and health. Appropriate measures had been and would continue to be put in place to ensure the safety and health of the officers whilst performing their duties.

38. Moreover, the Panel requested further information concerning the patrol coverage of the proposed fleet, the number of shifts and manpower required, a comparison of the manpower and fleet requirements under VMPR with those of neighbouring places, breakdown of posts deleted, and the report of the studies on VMPR.

39. Information concerning the coverage of the proposed fleet, manpower and other relevant information was provided in the second supplementary briefing notes circulated to Members of the Panel on Security on 2 June 2005. On the request for a study report, as we explained at the Panel meeting, the present proposal for VMPR is the result of continuing internal discussions and correspondence among concerned departments and prospective outside contractors. We undertook to provide supplementary information in response to Members' requests and concerns in relation to specific areas and topics, and this has been done vide the two supplementary notes mentioned above.

Replacement schedule of craft under VMPR

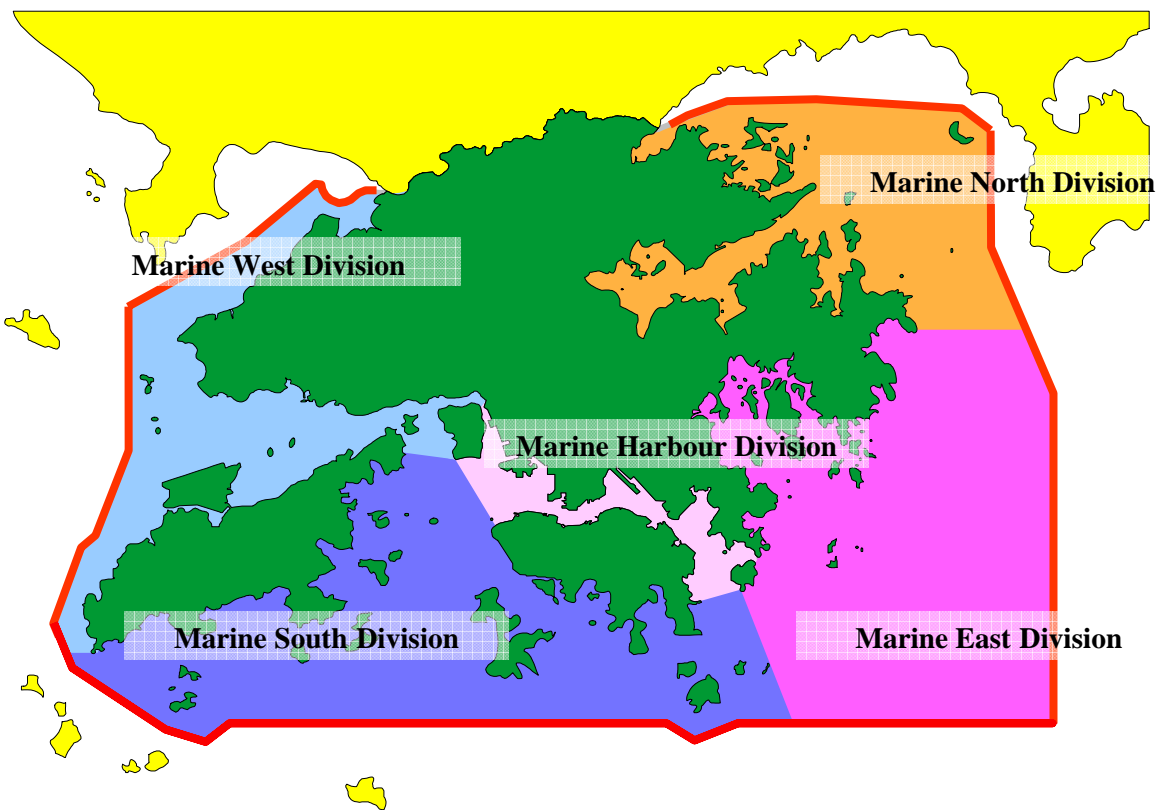
Craft	Year						Total	
	2007-08		2008-09		2009-10			
	Commissioning	Decommissioning	Commissioning	Decommissioning	Commissioning	Decommissioning	Commissioning	Decommissioning*
Divisional Patrol Launches								
- Damen Mark III		4		10				14
Harbour Patrol Launches		4		3				7
Inshore Patrol Craft								
- Logistics Seaspray		4						4
- Sharkcat		2						2
Launch / Barge Tenders								
- Searider		13		10				23
- Carson 400		7		3				10
- Bombard		8						8
Barge Operating Platform	2						2	
Medium Patrol Launches	6		6		5		17	
Divisional Fast Patrol Craft	17		6				23	
Total	25	42	12	26	5	-	42	68

*Except for the four Logistics Seasprays, all the craft will be disposed when they reach the end of their serviceable lives.

Provisional deployment plan of craft under VMPR

The Marine Police Region is divided into five divisions. Each division is broken down into patrol areas. The divisions and patrol areas are shown in the maps below

Map showing Marine Police Divisions

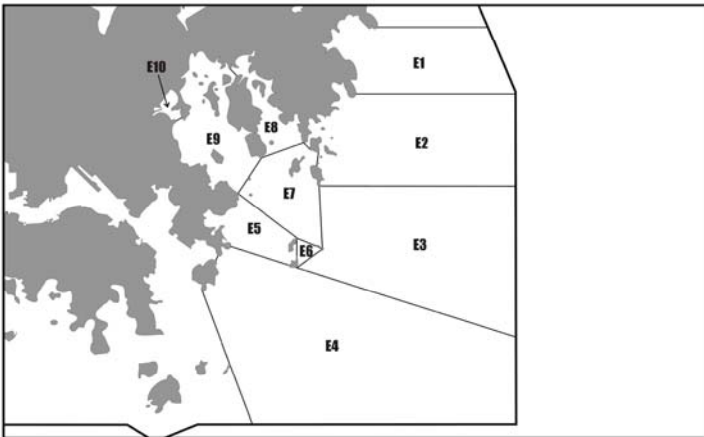


Maps showing patrol areas of Marine Police Divisions

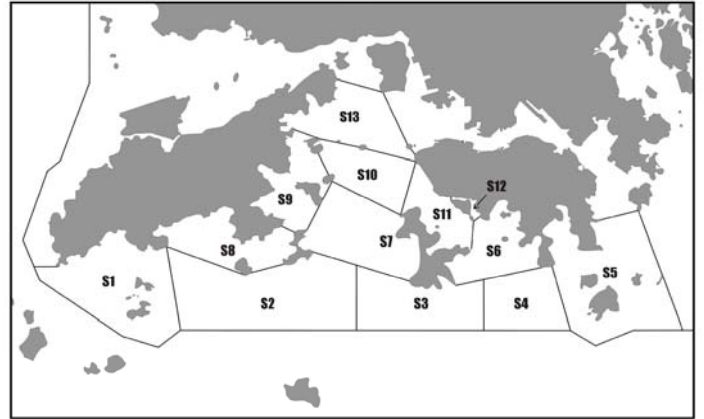
MARINE HARBOUR DIVISION



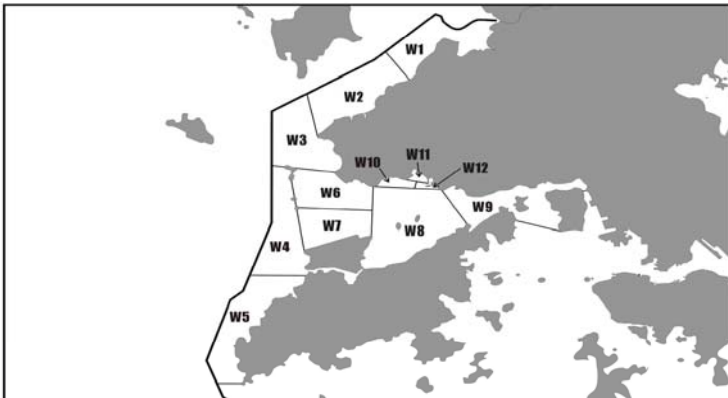
MARINE EAST DIVISION



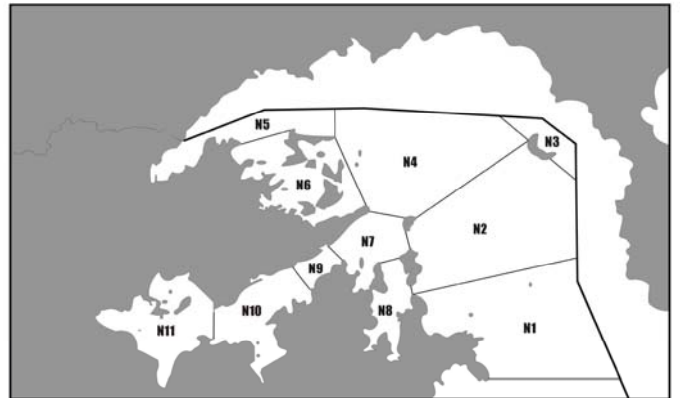
MARINE SOUTH DIVISION



MARINE WEST DIVISION



MARINE NORTH DIVISION



2. The distribution of craft under VMPR is determined by taking into account the policing needs of each patrol area, craft capabilities and the coverage of the sea boundary provided by the CCS. The main roles of the craft are to watch and ward in compliance with the mandatory International Ship and Port Facility Security Code, cover CCS blind spots, conduct ship search, search and rescue, respond to 999 calls and conduct casualty evacuation. The deployment plan of the 42 new craft under VMPR, and other craft deployed from the existing marine fleet, for each Marine Police Division are tabulated as follows -

Division	No. of patrol area	Craft					Total
		DPL [^]	IPC [^]	BOP [^]	MPL [^]	DFPC [^]	
Harbour	5	-	-	-	4	2	6
East	10	3	4	-	2	4	13
South	13	3	6	-	3	4	16
West	12	2	5	2*	2	4	15
North	11	2	4	2	2	4	14
Reserve	-	2	5	-	4	5	16
Total	51	12*	24*	4	17	23	80 [#]

[^] DPL - Divisional Patrol Launches
 IPC - Inshore Patrol Craft
 BOP - Barge Operating Platforms
 MPL - Medium Patrol Launches
 DFPC - Divisional Fast Patrol Craft

* Two BOPs, 12 DPLs and 24 IPCs are vessels deployed from the existing marine fleet.

[#] In addition to these 80 craft, there are 13 High Speed Interceptors/Fast Pursuit Craft under the Small Boat Division to guard against smuggling activities across the sea boundary, two Training Launches for training purpose, and 26 Launch/Barge Tenders attached to the launches/barges. The latter are used for transporting crews to the shore and patrolling in shallow waters. The fleet upon the implementation of VMPR will have a total of 121 craft.

Creation of posts for manning the new fleet under VMPR

Posts to be created by type of craft/function

	Inspector/ Senior Inspector	Station Sergeant	Sergeant	Police Constable	Cook	Total
CCS	1	12	0	5	0	18
Two BOPs	0	3	6	36	0	45
17 MPLs	0	0	36	147	0	183
23 DFPCs	0	0	12	60	0	72
VMPR Redeployment ^{Note}	49	36	76	253	4	418
Total	50	51	130	501	4	736

Posts to be created by financial year

	Inspector/ Senior Inspector	Station Sergeant	Sergeant	Police Constable	Cook	Total
2008-09	1	16	36	175	0	228
2009-10	49	35	94	326	4	508
Total	50	51	130	501	4	736

Note The following staff re-deployment will take effect with the implementation of VMPR -

- ✧ restructuring of the operational relief (292 posts)
- ✧ staff re-deployment of the existing marine fleet (123 posts)
- ✧ expansion of the Small and Fast Craft Training Team of the Marine Police Training School (3 posts)

Deletion of posts upon decommissioning of craft under VMPR

Posts to be deleted by type of craft^{Note 1}

	Inspector/ Senior Inspector	Station Sergeant	Sergeant	Police Constable	Cook	Total
14 Damen Mark IIIs	32	39	111	306	25	513
Seven Harbour Patrol Launches	0	0	15	75	0	90
VMPR Redeployment ^{Note 2}	40	23	67	215	0	345
Total	72	62	193	596	25	948

Posts to be deleted by financial year

	Inspector/ Senior Inspector	Station Sergeant	Sergeant	Police Constable	Cook	Total
2008-09	11	12	45	141	8	217
2009-10	61	50	148	455	17	731
Total	72	62	193	596	25	948

Note 1 Among the craft to be decommissioned, the four Logistics Seasprays, two Sharkcats, 23 Seariders, 10 Carson 400 and eight Bombards have no manning establishment. They were manned by staff from existing launches as necessary.

Note 2 The following staff re-deployment will take effect with the implementation of VMPR -

- ✧ restructuring of the operational relief (270 posts)
- ✧ staff re-deployment of the existing marine fleet (75 posts)

Marine Police Fleet
Changes on full implementation of VMPR

Type of craft	Existing	2009/10	Changes
Divisional Patrol Launches	26	12	-14
Harbour Patrol Launches	7	-	-7
Inshore Patrol Craft	30	24	-6
Launch / Barge Tenders	67	26	-41
Barge Operating Platforms	2	4	+2
Medium Patrol Launches	-	17	+17
Divisional Fast Patrol Craft	-	23	+23
High Speed Interceptors / Fast Pursuit Craft	13	13	-
Training Launches	2	2	-
	147	121	-26
Total	147	121	-26