

## **PILOTAGE ADVISORY COMMITTEE WORKING GROUP**

### **Revision to Vessel Traffic Services Procedures and Re-delineation of Very High Frequency Sectors**

#### **Purpose**

The purpose of this paper is to seek members' endorsement on the following proposal:

- (a) to streamline Vessel Traffic Services (VTS) reporting procedures upon commissioning of the new VTS system in 2016;
- (b) to reduce the number of reporting points to minimise the ship/shore communication; and
- (c) to revise the Very High Frequency (VHF) sector<sup>1</sup> boundaries for the purposes of re-delineation of VHF sectors to address the overloading of VHF sectors, and to adopt a recommendation made under the "Report of the Commission of Inquiry into the Collision of Vessels near Lamma Island on 1 October 2012".

#### **Background**

2. The current VTS related subsidiary legislations under the Shipping and Port Control Ordinance, Cap. 313 were established in mid 80s. The Vessel Traffic Centre (VTC) of the Marine Department was commissioned in 1989, since then the marine traffic activities and pattern evolved drastically with economic development of Hong Kong over the past decades, however, the operational mode of the VTC is remained more or less the same. With a view to enhance the efficiency of providing VTS to vessels calling Hong Kong, a comprehensive study on Hong Kong Vessel Traffic Services<sup>2</sup> (the Study) was conducted in 2013 to review current Hong Kong VTS from strategic, organizational and operational perspectives.

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<sup>1</sup> VHF Sectors means any VHF sector the boundaries of which are delineated in the Second Schedule of Shipping and Port Control Regulations, Cap. 313A.

<sup>2</sup> The Marine Department had appointed "Ove Arup & partners Hong Kong Limited" to conduct a study on Hong Kong Vessel Traffic Services to review the current VTS from strategic, organisational and operation perspectives. The study was completed in March 2013

3. The Study revealed that all VHF sectors were overloaded with VHF radio communications by vessels reporting movements, particularly the Harbour VHF Sector where vessels merging together for berths and the Western Approaches VHF Sector which is the main area for River Trade Vessels (RTVs) calling Hong Kong. Furthermore, the current establishment of VTC cannot cope with actual operational requirements as the movement reports from vessels have already saturated the air time available for each VHF sector, which would hinder effective delivery of high level vessel traffic services i.e. Traffic Organisation<sup>3</sup> and Navigational Assistance Services<sup>4</sup>, particularly during peak hours and typhoon periods. To cope with excessive workload, the Study recommended that VHF sectors should be tailored according to the nature, volume, and pattern of marine traffic. The study thus proposed to split two busy VHF sectors by re-delineate and addition of VHF sectors.

4. Furthermore, the re-delineation of VHF sectors alone will not be sufficient to trim down the radio communication. Therefore, it is further proposed to refine the VTS reporting procedures. The refinement of reporting procedures is made possible with new generation of VTS system which will tightly integrate with VTS Information Sub-system (VTS-IS) to provide automatic information capturing and event recording. This allows the elimination of certain reporting procedures and reporting points as required under the existing legislation.

5. On the other hand, the “Report of the Commission of Inquiry into the Collision of Vessels near Lamma Island on 1 October 2012” considers it is a merit to make a small adjustment to the VTS boundary between the Channel 67 area and Channel 14 area<sup>5</sup>, which is the boundary near the Lamma Island between the Western Approaches VHF Sector and the Harbour VHF Sector. The purpose is to include the Yung Shue Wan ferry pier and the Lamma Power Station pier into the Harbour VHF Sector, so that majority of vessels to and from these two piers would be covered under the Harbour VHF Sector. Although the suggestion does not form part of the streamline of VTS procedures, the opportunity is taken to save the resources require for launching a separated amendment exercise.

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<sup>3</sup> As defined in IMO Resolution A.857(20) – Guidelines for Vessel Traffic Services, a traffic organization service is a service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area.

<sup>4</sup> As defined in IMO Resolution A857(20) – Guidelines for Vessel Traffic Services, a navigational assistance service is a service to assist on-board navigational decision-making and to monitor its effects.

<sup>5</sup> Paragraph 443 (10) of the “Report of the Commission of Inquiry into the Collision of Vessels near Lamma Island on 1 October 2012 (The Redacted Version)”, April 2013

## **Proposal**

### *Streamline VTS reporting procedures*

6. With the new VTS system in place, repeated reporting at different stages of vessel movements or departure will be no longer necessary. It is therefore proposed to:

- i. Combine pre-move report, ready to move report and move underway report into a single movement report;
- ii. Combine pre-departure report, ready to depart report and departure underway report into a single departure report; and
- iii. Upon successful implementation of automatic event recognition in the new VTS system, delete the move finished report.

7. Details of the combined report requirements for vessel movement and departure are as in Annex I.

### *Re-delineation of VHF sector boundaries*

8. To take on board the recommendation of the Study, it is proposed to split the two busy VHF sectors, Harbour VHF Sector and Western Approaches VHF Sector, by addition of two new VHF sectors, Harbour East Sector and Lantau South Sector, and re-delineation of existing sectors. The new sectors will operate using VHF Channel 02 and VHF Channel 27 respectively.

### *The Recommendation from the Commission of Inquiry (CoI) into the Collision of Vessels near the Lamma Island on 1 October 2012*

9. We also propose to adopt the recommendation made in the “Report of the Commission of Inquiry into the Collision of Vessels near Lamma Island on 1 October 2012” regarding a small adjustment to the VTS boundary between the VHF Channel 67 area and VHF Channel 14 area.

10. The existing VHF sector layout and the proposed future VHF sector layout are indicated in Annex II.

### *Reduction of reporting points*

11. Upon the full commissioning of the new VTS system, the capability of identification and tracking of vessels will be improved. With this improvement,

we propose to delete the following reporting points so as to reduce ship/shore communications. They are:

- i. Hak Kok Tau (Cape Collinson);
- ii. Lamma Channel Separation Buoy No. 1;
- iii. Chesterman Buoy;
- iv. Green Island;
- v. Shek Kok Tsui;
- vi. North West Ma Wan Traffic Light;
- vii. Ma Wan Buoy;
- viii. Castle Peak No.8 Buoy; and
- ix. West Quarantine Buoy.

#### Addition of reporting points

12. To cater for needs arisen from the addition of two VHF sectors, we propose to add a couple of reporting points for confirming the changeover of VHF sector with VTS participating ships. They are:-

- i. Northern 4 Buoy; and
- ii. Cheung Tsing Bridge

#### **Schedule**

13. The proposed revision should come into operation in three phrases as follows:

- (a) For the proposed streamlined VTS reporting procedures and amendments to reporting points, it is proposed to be implemented upon the commissioning of the new VTS system scheduled for end of 2016.
- (b) For the deletion of move finished report, it is proposed to be implemented upon the successful implementation of automatic event recognition and recording by the new VTS system; and
- (c) The re-delineation of VHF Sectors, except the CoI recommended adjustment that should be implemented as early as possible, could only be implemented by a reconfiguration of VHF sectors in the VTC which will subject to availability of additional human resources.

## **Consultation**

14. MD will consult the Pilotage Advisory Committee and the Port Operations Committee after the consultation with PAC Working Group.

## **Advice Sought**

15. Members' comments and endorsement are sought on the proposal as outlined above.

## **Presentation**

16. This paper will be presented by Mr. Warren K. P. Li, Senior Marine Officer/Vessel Traffic Centre.

**Vessel Traffic Section  
Port Control Division  
Marine Department  
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**Details of the Requirements of Reports**

## i. Movement Report

Prior to a vessel getting underway in the waters of Hong Kong, the master/coxswain shall report the intended movement of that vessel to the VTC and request permission to move on the VHF channel appropriate to the VHF sector and provide the following information:

- (a) the name of the vessel;
- (b) the call sign of that vessel;
- (c) the present berth or other location of that vessel;
- (d) the intended berth or other location of that vessel;
- (e) any special condition of that vessel; and
- (f) any other relevant information, including the intention of the master/coxswain of that vessel to undertake a sea trial during the movement.

## ii. Departure Report

Prior to a vessel getting underway in the waters of Hong Kong, the master/coxswain shall report the intended departure of that vessel to the VTC and request permission to depart on the VHF channel appropriate to the VHF sector and provide the following information:

- (a) the name of the vessel;
- (b) the call sign of that vessel;
- (c) the present berth or other location of that vessel;
- (d) the number of the port clearance obtained under section 15 of the Shipping and Port Control Ordinance (the Ordinance);
- (e) any special condition of that vessel; and
- (f) any other relevant information, including the intention of the master/coxswain of that vessel to undertake a sea trial prior to the departure.

**Proposed Re-arrangement of VHF Sectors**

