

## **PROVISIONAL LOCAL VESSEL ADVISORY COMMITTEE**

### **Establishment of Zhujiang Estuary Traffic Separation System**

#### **Purpose**

This paper informs members of the cooperation between Hong Kong Marine Department and MSA China to establish a Traffic Separation System (TSS) in the Zhujiang area.

(Note: A TSS is a routing scheme designed for regulating the movement of vessels, especially in busy waters, by separating the traffic, which moves in different directions, into separate traffic lanes. Vessel navigating in a particular traffic lane will all move in the same direction and are separated from the traffic in the other lane(s) to avoid the head-on or crossing situations.)

#### **Objective**

2.1 The objective of establishing the TSS is to enhance navigation safety in the south and western approaches to Hong Kong by:

- a) harmonising the traffic flow in the convergence areas near the entrance to the East Lamma Channel at south west of Po Toi Island;
- b) separating the traffic approaching and departing the East Lamma Channel near the southern boundary of the Hong Kong waters from other traffic so as to minimize crossing and head-on encounters; and
- c) harmonising the traffic flow off Fan Lau (southwest of Lantau Island) and separating the traffic following the recommend route for Hong Kong-Macau ferries from other traffic bound for ports up in the Zhujiang.

#### **Background**

3.1 The East Lamma Channel is the busiest waterway in our port. According to the record, a total of 70,530 ocean-going vessels have visited Hong Kong in 2002.

About 78% of these vessels entered and left the port via this Channel. At present there is no vessel routing system to the south of our boundary. Vessels entering or leaving the East Lamma Channel have to manoeuvre through the crossing and head-on traffic of those vessels bound for Shenzhen and other ports in the Pearl River Delta.

3.2 Between 1996 and 1999 a number of serious collisions had occurred in this area, resulting in the sinking of vessels and other serious consequences. As a result of rapid developments in the Pearl River Delta and continuous growth of marine traffic within the region, the chances of such accidents is anticipated to increase if no action is taken to improve the situation. In the event of a large vessel sunk after a collision at the approaches to the East Lamma Channel, the major entrance to our port will be blocked. This will lead to severe disruption to our port as well as extensive and expensive salvage operations. As a matter of fact the accidents mentioned above could have been avoided had there been a TSS in the area, as the vessels involved in the collisions should have then proceeded in separate traffic lanes without meeting head-on or crossing each other.

3.3 Similarly, the high speed ferries running between Hong Kong and Macau also encountered the same problem. In 2002, a total of 35,470 trips were made by these ferries. These vessels normally follow the recommend route on the south of Lantau Island and will cross the route of the through traffic bound for ports in the Pearl River Delta off Fan Lau, near the south western tip of Lantau Island.

3.4 In order to improve the present situation, Marine Department initiated discussions with the Maritime Safety Administration (MSA) of Beijing in 1999 on the establishment of a TSS at Dangan Channel (DCTSS). The MSA responded positively to the proposal and entrusted the GDMSA to conduct a feasibility study on it. The study confirmed the need to establish the DCTSS. In addition, it also recommended that another TSS be established in the southwest of Soko Islands, i.e. the Lantau Channel TSS.

## **The Proposal**

4.1 The present proposal is to establish a traffic separation system at the Pearl River estuary as a measure to reduce the identified potential risks. The system comprises of:

- (i) Dangan Channel Traffic Separation Scheme (DCTSS);

(ii) Lantau Channel Traffic Separation Scheme (LCTSS)

(A map showing the locations of the TSS is at Appendix I)

4.2 The Dangan Channel Traffic Separation Scheme will be located to the south of the latitude 22 ° 09' N extending from the South of Waglan Island to the south of the Lamma Island. Parts of No.1 Precautionary area, No.1 Traffic lanes and the No.2 Precautionary area lie within the Hong Kong waters. The vessels using TSS will travel in an East/West direction or vice versa.

4.3 The Lantau Channel Traffic Separation Scheme will be located at the south of the Fan Lau buoy in the southwest of Lantau Island. Parts of the No.4 Traffic lane, No.3 Precautionary Area and No. 5 Traffic lanes lie within the Hong Kong waters. The directions of the traffic flow are depicted in Appendix I.

4.5 The Hong Kong VTC will provide the essential traffic information and advice for the vessels within the HKSAR waters. For vessels navigating in the areas outside the limit of HKSAR waters, Mainland authorities will be responsible to provide the traffic information.

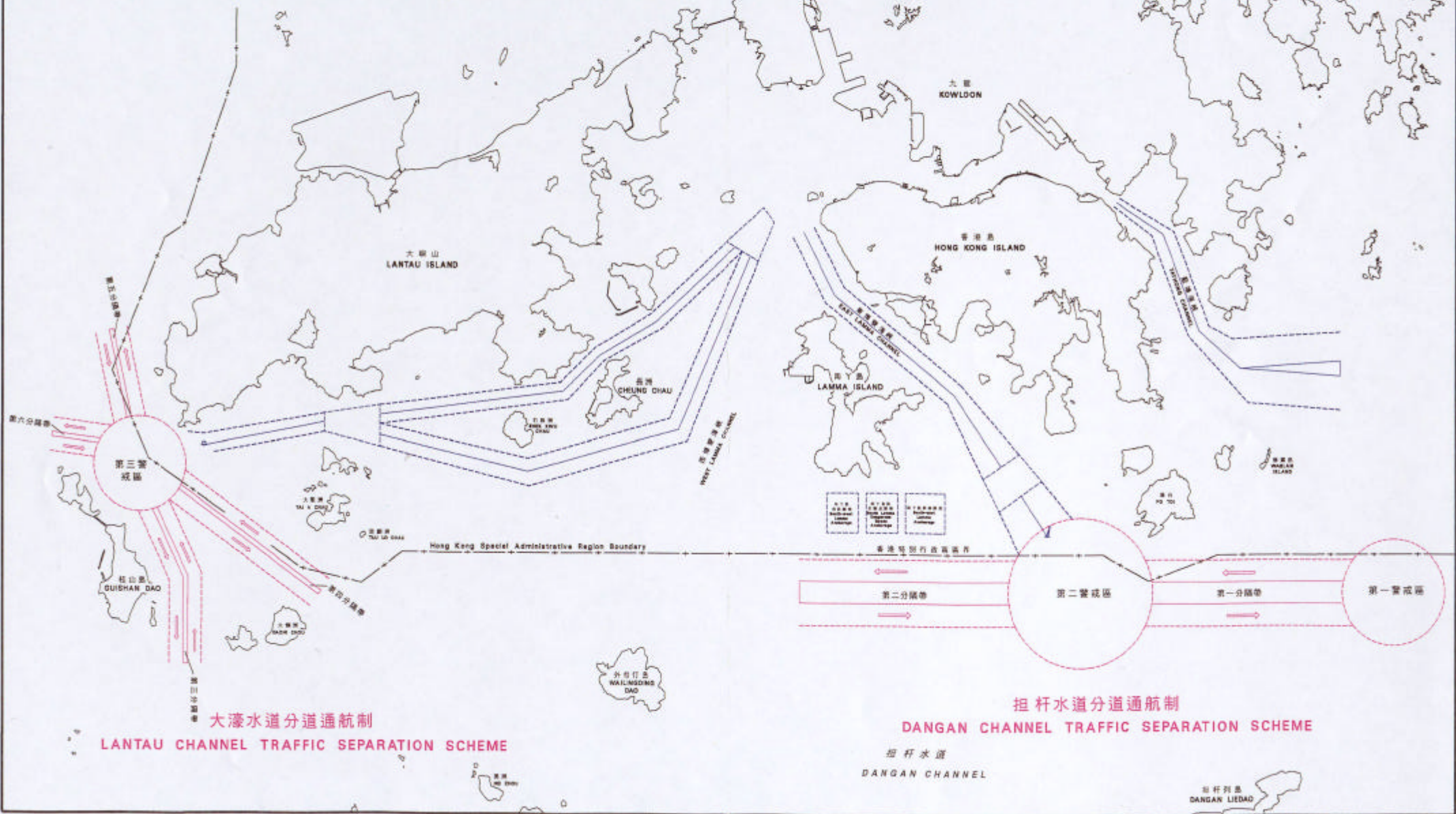
### **Implementation Plan**

5.1 After consulting the relevant local trade associations, Hong Kong Marine Department will sign an agreement with the MSA China on the technical arrangements for establishing the TSS and make announcement in November 2003 for a trial of the schemes, which will start in January 2004 and last for 12 months. Upon satisfactory completion of the trial, the TSS will then be put forward to the International Maritime Organisation (IMO) for adoption and formal implementation.

Vessel Traffic Section  
Marine Department  
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# 珠江口水域船舶定線制

## Zhujiang Estuary Traffic Separation System



大濠水道分道通航制  
LANTAU CHANNEL TRAFFIC SEPARATION SCHEME

担杆水道分道通航制  
DANGAN CHANNEL TRAFFIC SEPARATION SCHEME

担杆水道  
DANGAN CHANNEL

担杆列島  
DANGAN LIEDAO