

China's CSB Activities and Suggestions for International CSB Efforts

Submitted by China Maritime Safety Administration (China MSA)

SUMMARY

Executive Summary: This document provides information on the development of CSB data acquisition system and CSB trials in China, and puts forward some suggestions for global CSB efforts.

Action to be taken: paragraph 4

Related documents: Action IRCC12/13

1. Introduction

According to Action IRCC12/13, IRCC encourages member states to support the CSB initiative with positive actions.

2. Discussion

In response to Action IRCC12/13, China MSA has carried out the CSB data acquisition system research and CSB trials.

2.1 Development of CSB data acquisition system in China

The hardware of CSB data acquisition system is composed of the shipboard terminal and the shore-based terminal. CSB data collected by the ship on the voyage will be recorded and stored by the shipboard terminal, and then transmit to the shore-based terminal by the Internet when arriving at a berth. The shipboard terminal reports its equipment and storage status to the shore-based terminal regularly by Beidou satellite navigation system (BDS), so that the shore-based terminal can remotely manage and restart the shipboard terminal when it is abnormal.

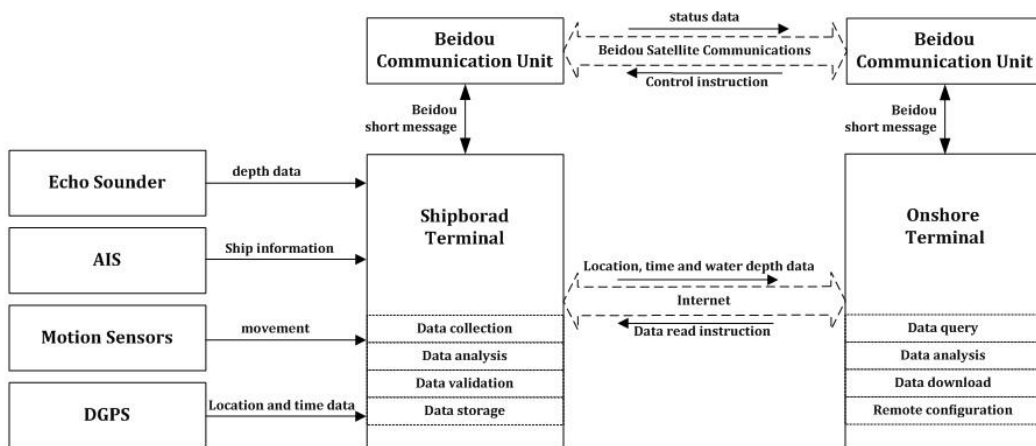


Figure 2 - CSB data acquisition system

2.2 CSB trials in China

China MSA has conducted CSB trials in Qinzhou Bay, and tested four different equipments configuration schemes. The results will be reported to the CSBWG11.

Table1-four different equipment configuration schemes

NO.	Equipments	Sounder	GNSS
1	Onboard echo-sounder+onboard navigational GNSS receiver	NINGLU	GARMIN
2	Professional echo-sounder+high-precision geodetic GNSS-receiver	Odom MKIII	Trimble SPS461 (Marine Star)
3	Onboard echo-sounder+high-precision geodetic GNSS-receiver	NINGLU	Trimble SPS461 (Beacon)
4	Professional echo-sounder+onboard navigational GNSS receiver	Odom MKIII	GARMIN

3. Recommendations

a. It is suggested that the existing IHO CSB system should be adjusted properly to establish a double-layer CSB system taking HOs as the core of trusted node network. The bottom layer is national CSB systems which are responsible for the collection of CSB data acquired by their ships, while the top layer is IHO DCDB which is responsible for the worldwide collection of CSB data transmitted from national CSB systems.

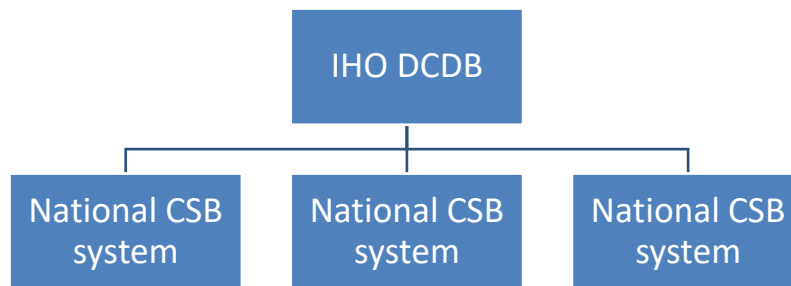


Figure 2 - Double-layer CSB system

b. It is suggested that some functions and roles be considered for HOs in IHO DCDB. For example, the concerns about joining the international CSB efforts may be partially eliminated by allowing HOs to be responsible for filtering the CSB data collected within waters of their national jurisdiction.

c. Consider a new publication in addition to the technical guide B-12, which mainly contains relevant rules and regulations and details the responsibilities and rights of various parts of the international CSB system. It may partly eliminate the concerns of Member States, and be used to guide member states to establish national CSB system, so as to gather the greatest joint force to promote global CSB efforts.

d. Consider a white paper including at least advantages of CSB, and wide use and the main application scenarios of CSB data, so as to improve the global attention and understanding of CSB.

e. Promote the development of CSB data automation processing software to establish a standard process for filtering correction and quality assessment of CSB data, and incorporate typical use cases into IHO Publication B-11 “IHO-IOC GEBCO Cook Book” .

4. Action

The CSBWG is requested to:

- a. **Note** the information provided;
- b. **Take** any other actions, as appropriate.