

Paper for Consideration by ENCWG
Proposal on developing a method to use area feature to
represent the sea area that have a name but does not have a
precise boundary in S-101

Submitted by:	CHINA MSA
Executive summary:	China MSA proposes to use area feature to represent a sea area that has a name but does not necessarily have an exact boundary in S-101.
Related documents:	S-101 Annex A Part 28

Introduction/Overview

There are many sea areas without clear scope in the real world, some of which are very important for the safe and efficient navigation. However, because there is no clear boundary, these areas are often represented as point feature in S-101, which will have a negative impact on the understanding of mariners.

Discussion

1. Take Bohai Strait as an example (see Figure 1). The Bohai Strait is located at the boundary between the Bohai Sea and the Yellow Sea. Because it is the entrance of Tianjin port, Qinhuangdao port and Tangshan port, its name are often used in navigation activities to complete the transmission of information. However, because its geographic scope cannot be precisely defined, although the Bohai Strait is an area region, there is no accurate boundary coordinates for its geographical range. The scope of Bohai Strait can be briefly expressed by the position of the annotation of its name in the paper chart, as shown in Fig. 1. While it can only be represented by point in S-101 (see Figure 2). As a result, spatial information such as the extent, size, and shape of the Bohai Strait cannot be expressed.

2.For the sea areas like Bohai Strait, which geographic scope is not delineated and does not need to be delineated, even if the approximate geographic scope is given, this will be helpful for mariners to understand and Computer's automatic processing.

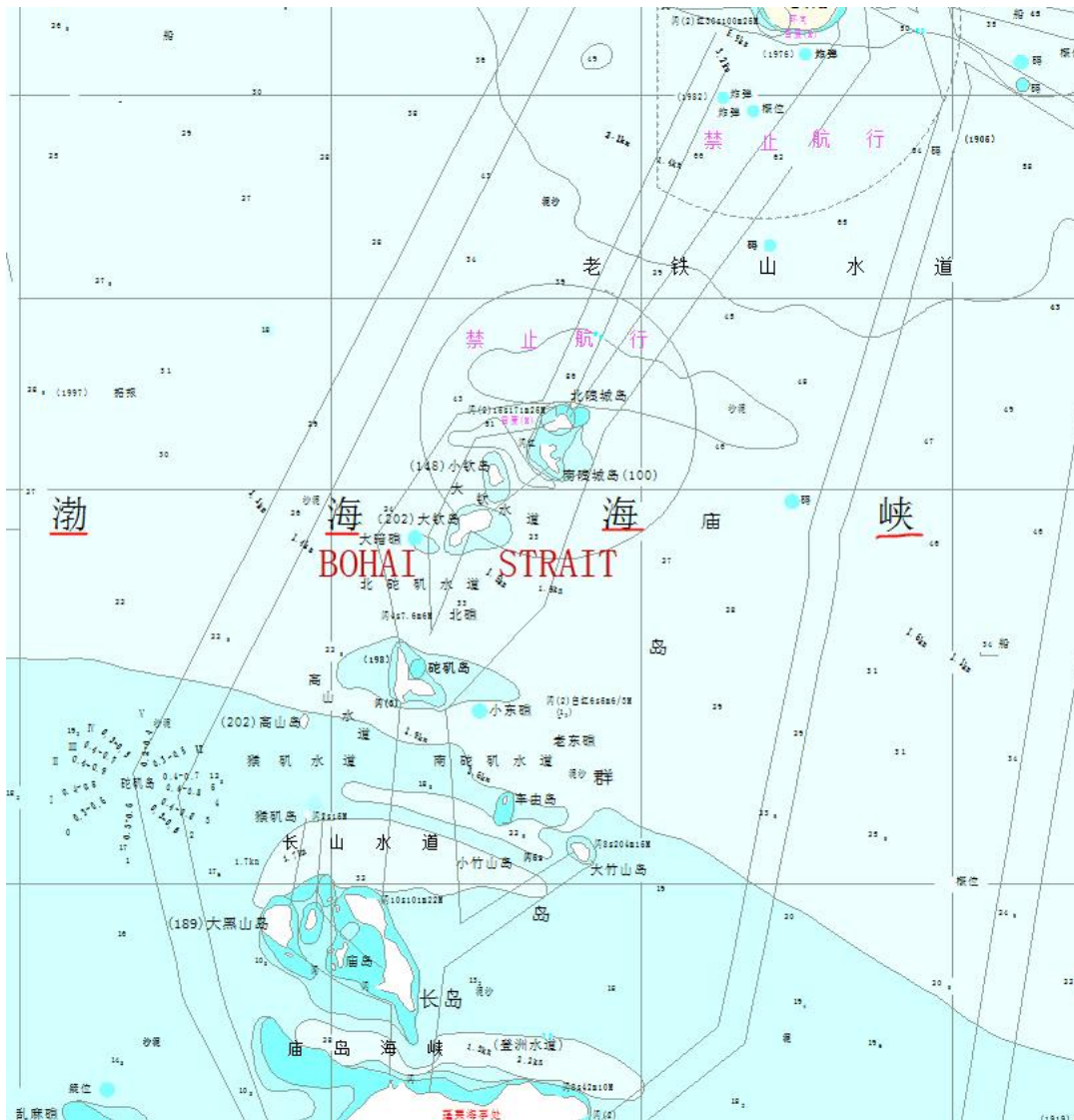


Figure 1- Bohai Strait and its internal waterways

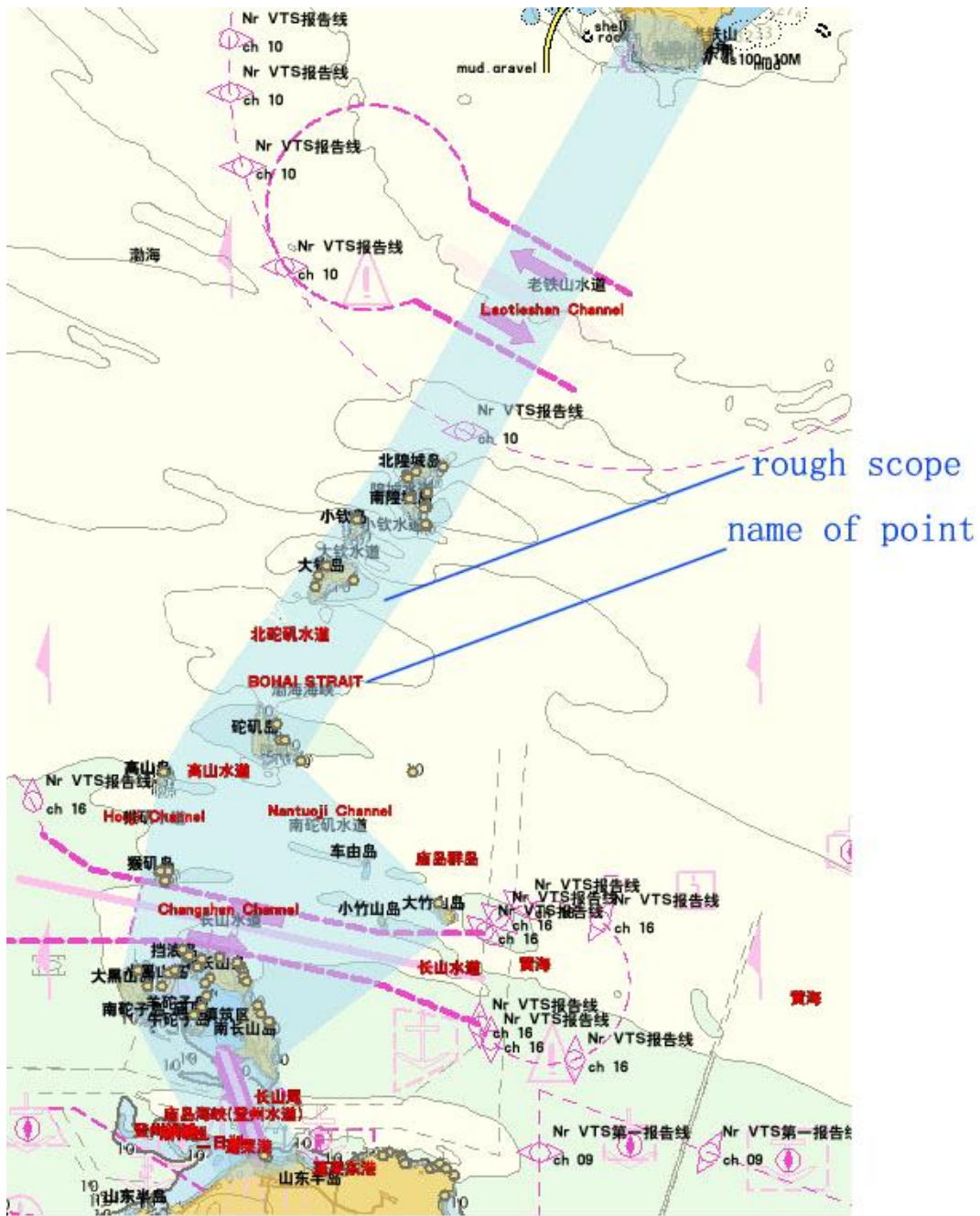


Figure 2- Different effects of express Bohai Strait by point and area in ENC

Recommendations

1.It is recommended to use area feature to represent sea areas which scope is not delineated and does not need be delineated, for the ENC producers to express all known spatial information of the sea areas.

2.The possible solution may be as follow:

An attribute should be added to Part 28 "Meta-Elements, Spatial Attributes and Enumeration Description", which is used to clearly inform the mariners that the given range is an approximate range and clearly explain how to use the approximate range.

Attribute Name Nature of Rough Range

Attribute type: text

For example: "The geographical scope for reference. This sea area without strict boundaries, this given scope is used for reference. The actual scope should refer to general geographic knowledge and comply with the corresponding local regulations and navigational safety." (See Figure 2)

Action

The ENCWG is requested to:

- 1.Note the information provided;
- 2.Take appropriate actions.