

ARM7-6.3

IALA ARM7 Committee

Guidance on breakwater and submerged breakwaters

-Review MBS incorporate into Recommendation

October, 2017

IALA Headquarters, Saint Germain en Laye, France

Korea Association of Aids to Navigation(KAAN)

JunKi BAE

Introduction

Guidance on Breakwater & submerged breakwaters

□ Purpose of presentation

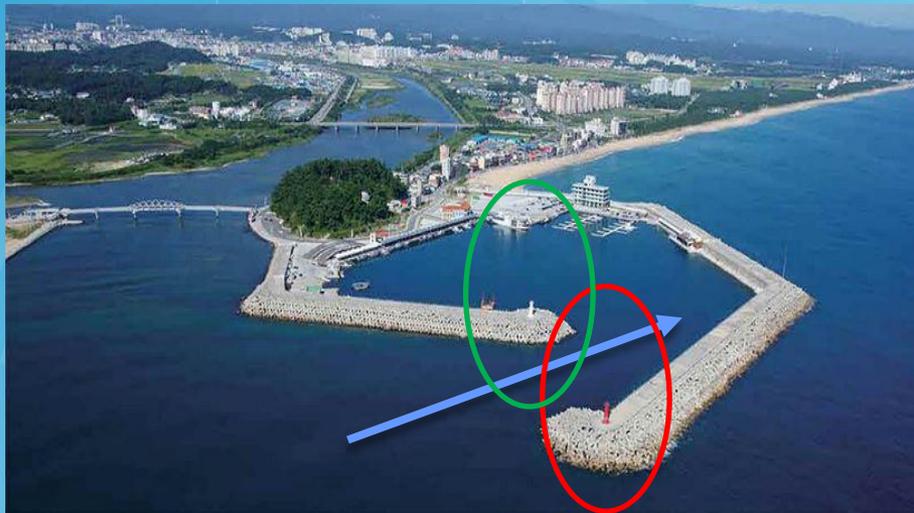
To introduce 2018-2022 ARM Committee work programme “Review MBS incorporated into Recommendation include guidance on breakwater and submerged breakwaters”

□ Related documents

- ❖ Maritime Buoyage System(MBS), NAVGUIDE
- ❖ IALA Recommendation O-139 “The marking of Man-Made Offshore Structures”

Background

□ Breakwater



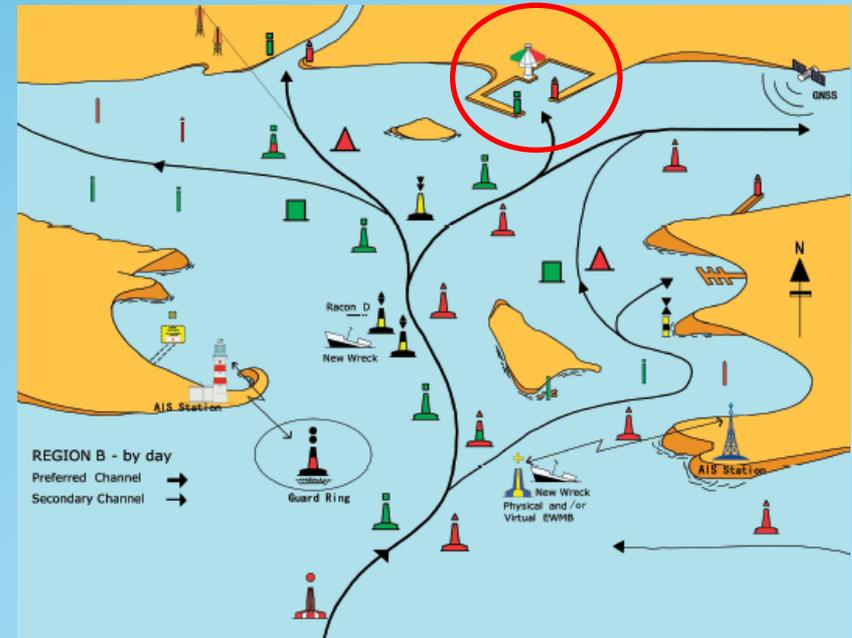
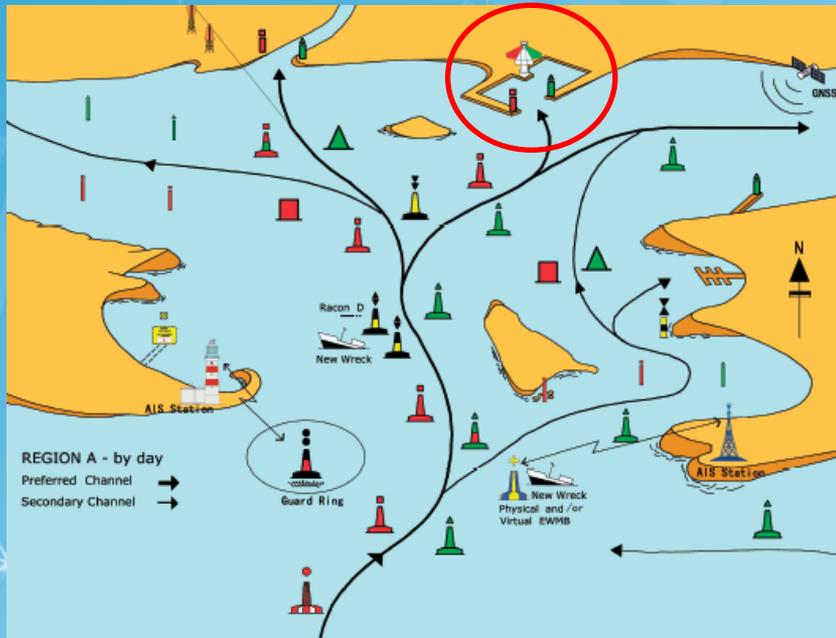
□ Submerged breakwater



Background

Guidance on Breakwater & submerged breakwaters

Comparison between IALA Region A and B



Background

□ IALA MBS Chapter 8.7 Port or Harbours Marks

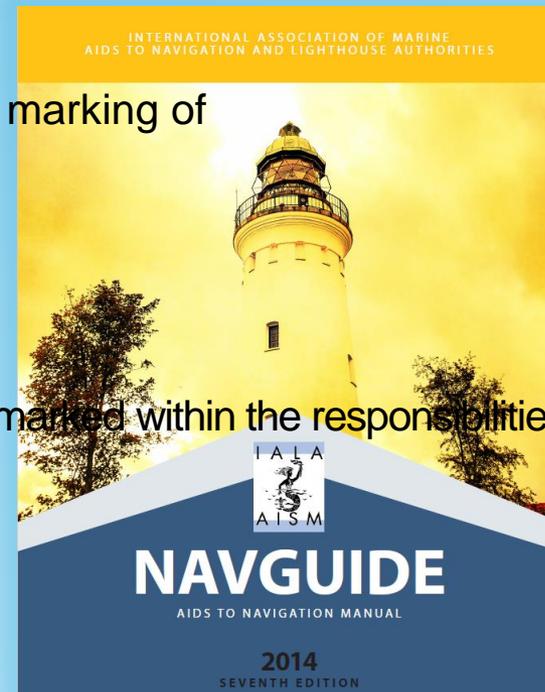
Mariners should be careful to take account of any local marking measures that may be in place and will often be **covered by Local Regulations or by-laws**.

Before transiting an area for the first time, mariners should make themselves aware of local marking arrangements.

Local AtoN may include, but not be restricted to, marking of

- ❖ Breakwaters, quays and jetties;.....

And other river, channel, canal, lock and waterways marked within the responsibilities of competent authorities.



Discussion

Guidance on Breakwater & submerged breakwaters

Example No. 1 : Yeong Pyong Island Port, Incheon



Target	Definition 1	Colour 1	Definition 2	Colour 2
1	Obstacle(danger)	Yellow	Port passage	Red



Discussion

Guidance on Breakwater & submerged breakwaters

Example No. 2 : Jin Doo Port, Young Heung Island

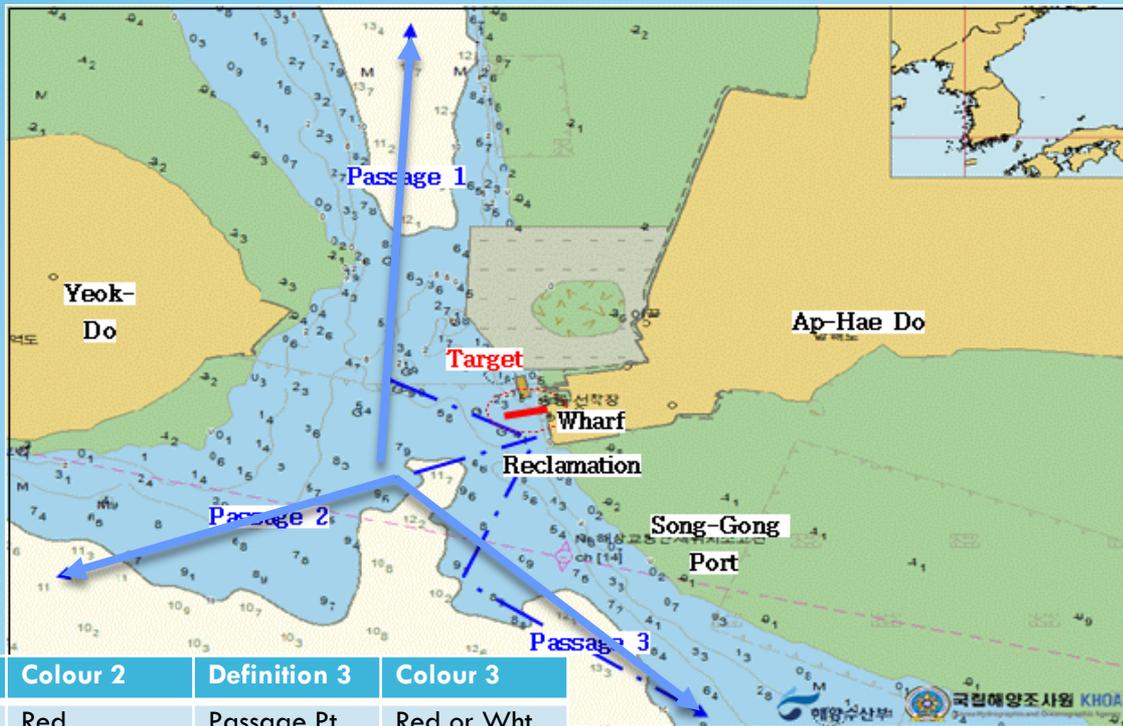
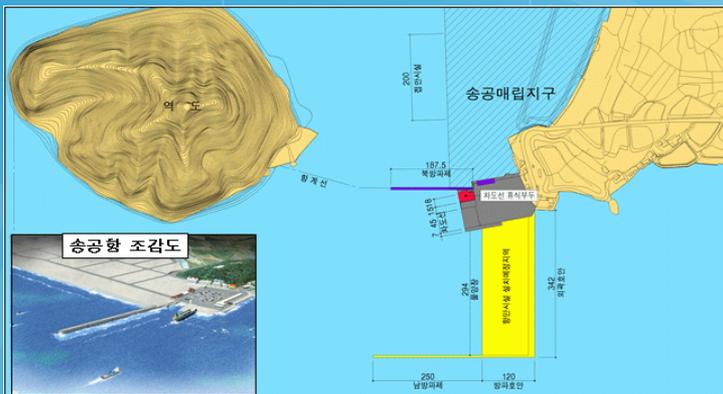


Target No.	Definition 1	Colour 1	Definition 2	Colour 2
1	Obstacle(danger)	Yellow	Port passage	White
2	Obstacle(danger)	Yellow	Port Passage	Red
3	Obstacle(danger)	Yellow	Port Passage	White
4	Obstacle(danger)	Yellow	Port Passage	Red

Discussion

Guidance on Breakwater & submerged breakwaters

Example No. 3 : Song Gong Port, MokPo



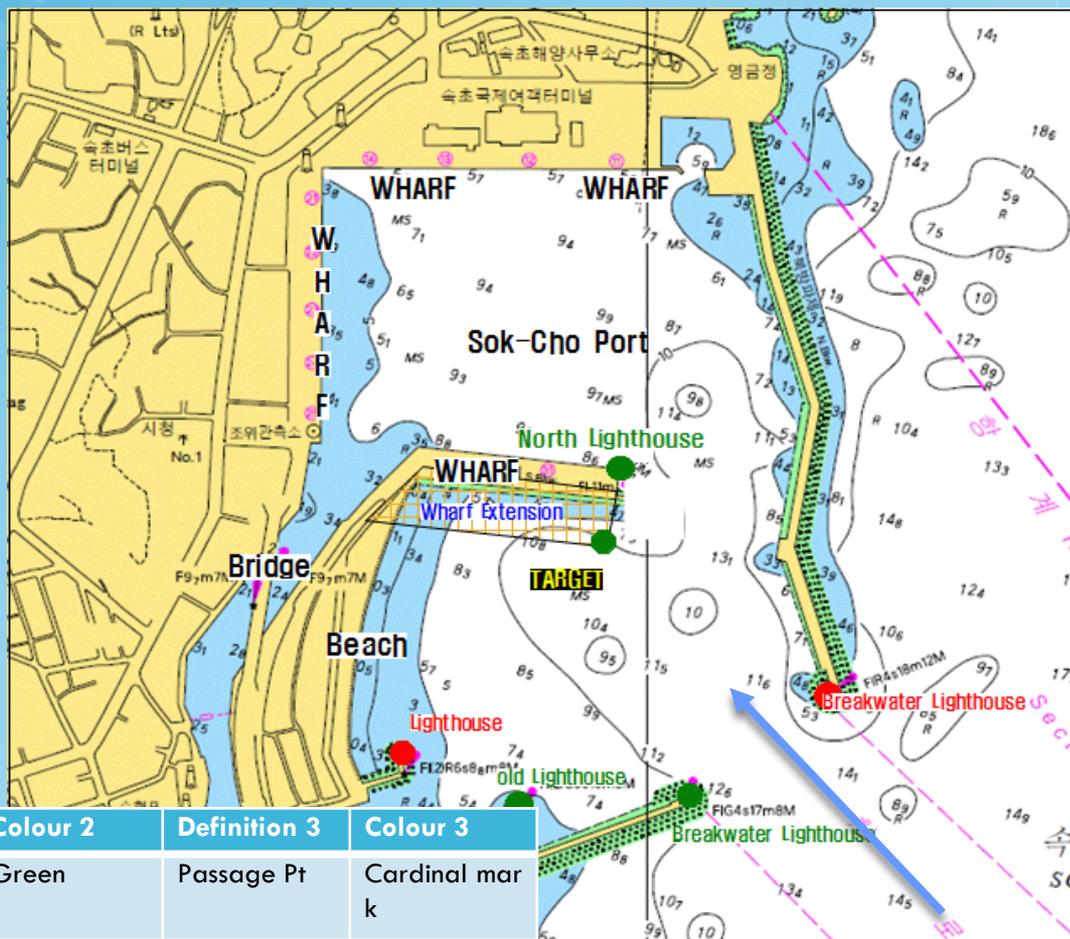
Target No.	Definition 1	Colour 1	Definition 2	Colour 2	Definition 3	Colour 3
1	Obstacle	Yellow	Port Entry	Red	Passage Pt	Red or Wht.



Discussion

Guidance on Breakwater & submerged breakwaters

Example No. 4 : Sok Cho Port, Sok Cho



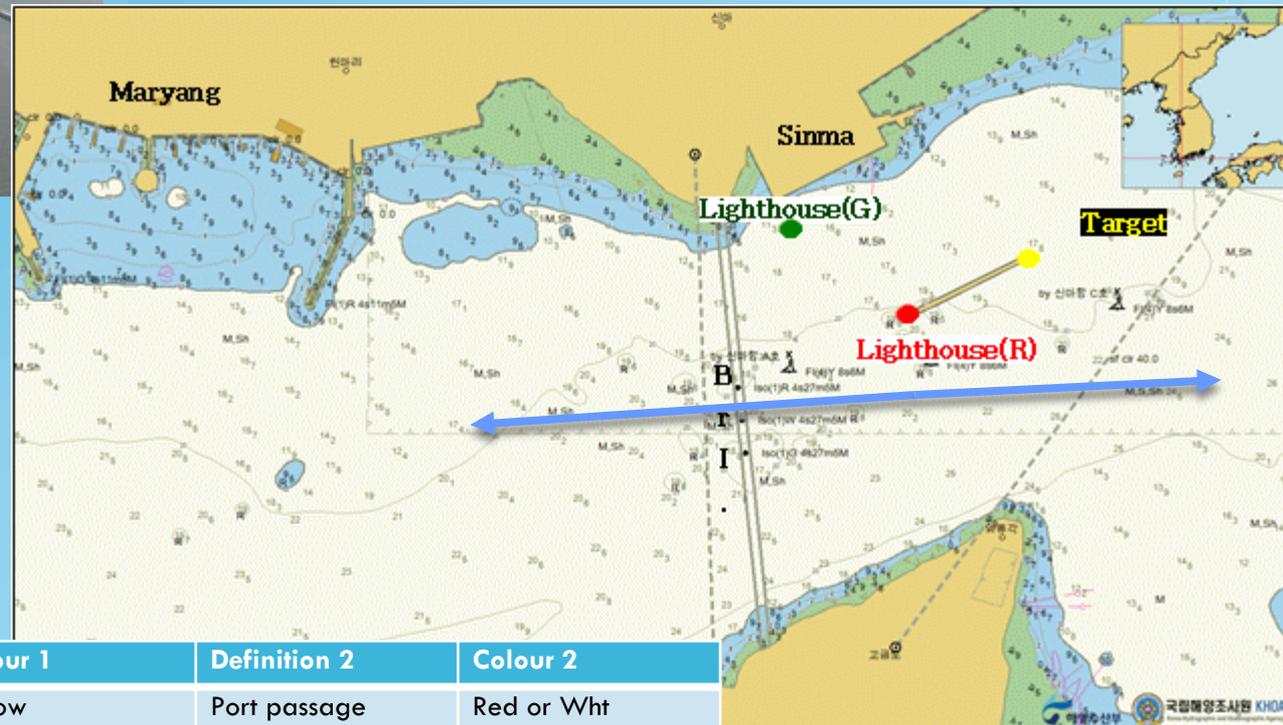
Target No.	Definition 1	Colour 1	Definition 2	Colour 2	Definition 3	Colour 3
1	Obstacle (Beach area)	Yellow	Port Entry	Green	Passage Pt	Cardinal mark



Discussion

Guidance on Breakwater & submerged breakwaters

Example No. 5 : Sinma Port, Gang Jin



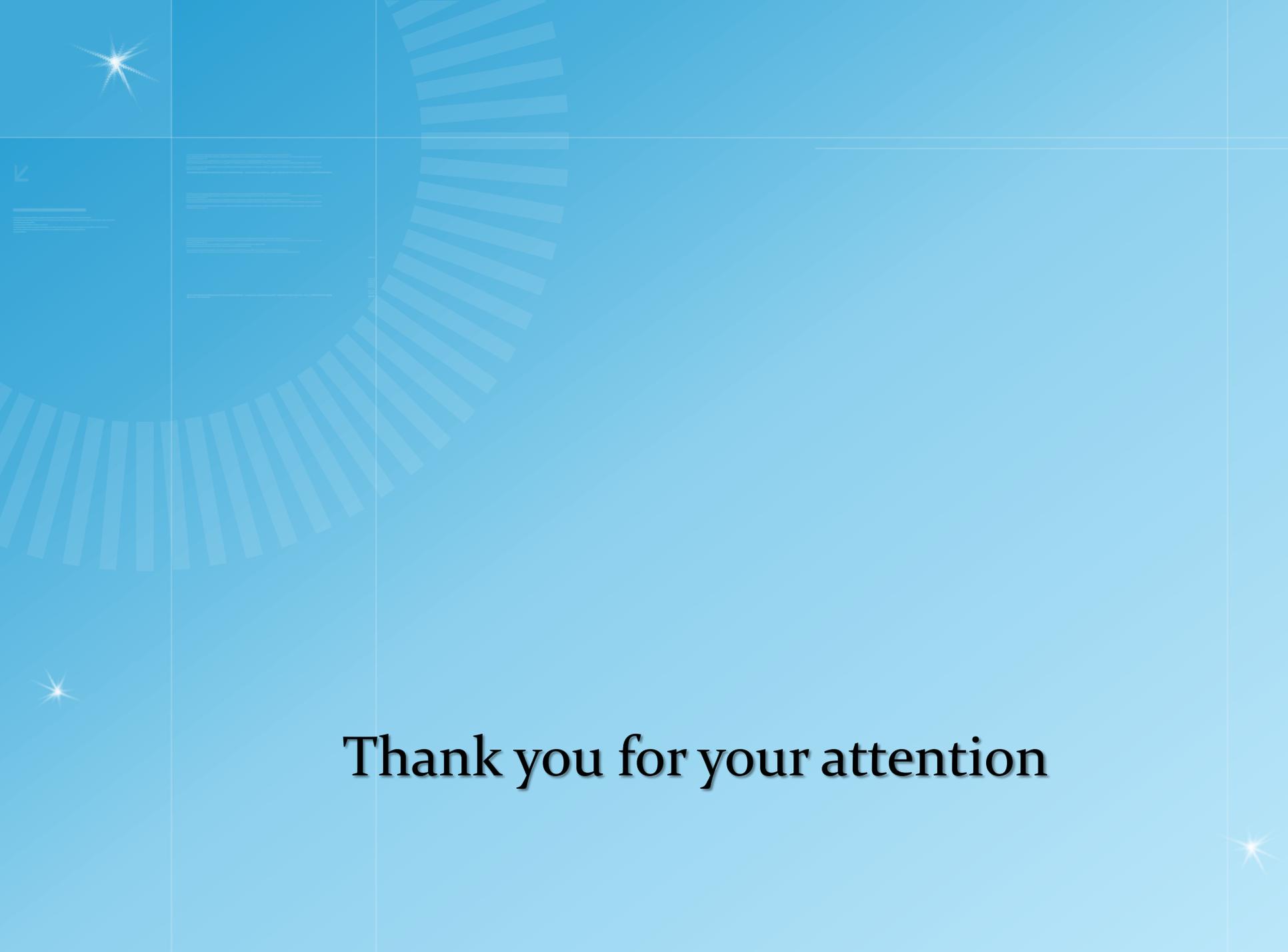
Target No.	Definition 1	Colour 1	Definition 2	Colour 2
1	Obstacle(danger)	Yellow	Port passage	Red or Wht



Summary

Guidance on Breakwater & submerged breakwaters

- ❑ To protect port and coastal facilities, breakwater and submerged breakwaters installation has been increased
- ❑ Complex breakwaters can make obstacle and confuse to install new AtoN on their
- ❑ Especially for decide light colour or painting



Thank you for your attention