



Procedure for development of a S-Mode guideline

Team K-Mode

What is S-mode?



Standardized mode for navigation equipment to enhance the safety at sea **from user-perspective** *

Why S-mode?

Over 60% of accidents from Human Error *

**S-Mode will be a solution to mitigate
a navigation risk(e-navigation SIP) ***

* NAV(Sub-Committee on Safety of Navigation) 59/6

* NCSR(Sub-Committee on Navigation, Communications and Search and Rescue 1/28

S-mode Since 2008

2008.03 NAV 54

The concept of standardization has been suggested at conference of NAV 54 by IFSMA

2015.06 MSC 95

At MSC 95 MSC has approved development of a S-Mode guideline as a part of the e-navigation *

2019 Deadline

Developing S-Mode guideline is to be complete by 2019

Background & Purpose

Our proposal

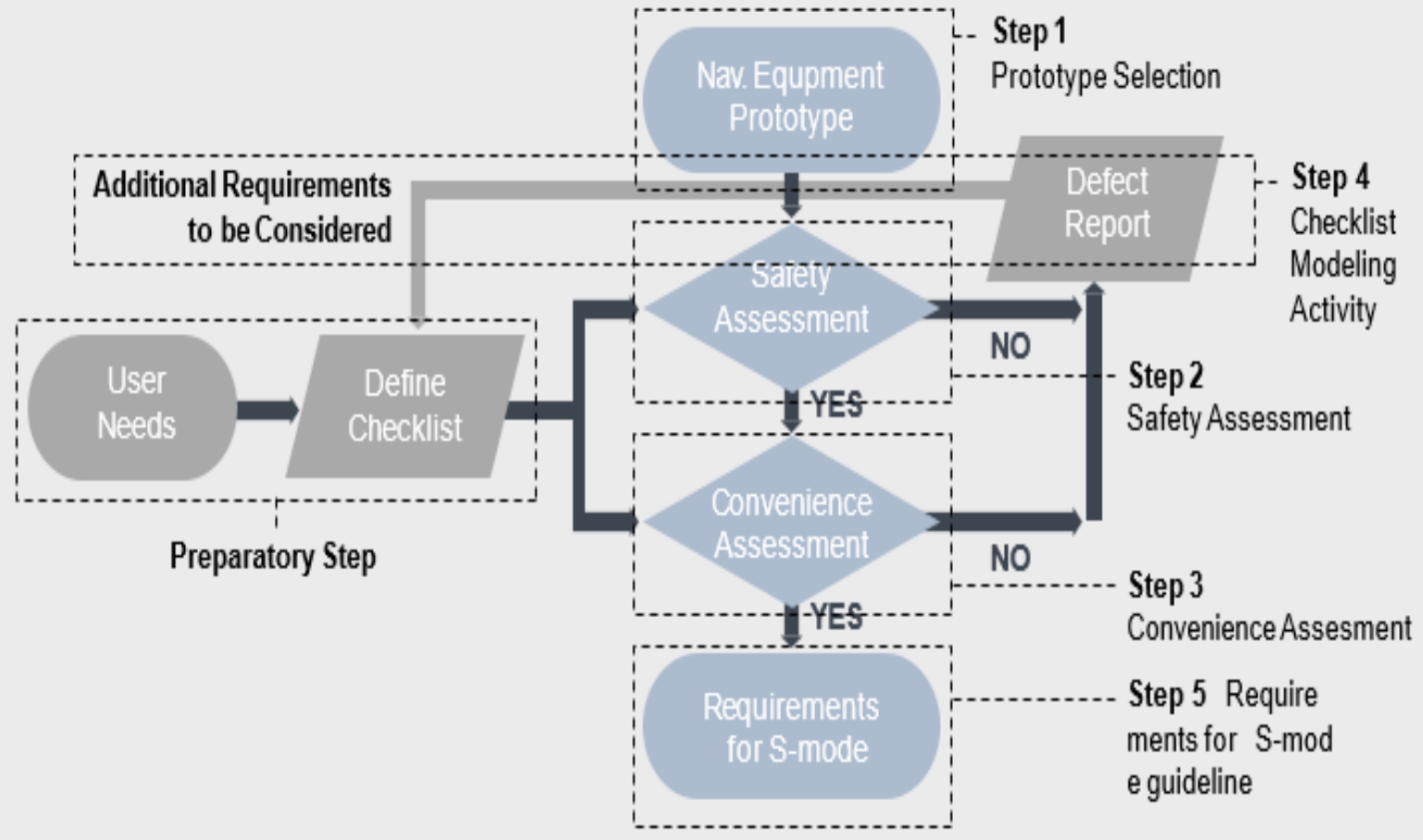
Background

Developing an unified and internationally harmonized S-Mode among different manufacturers is **an extremely difficult and a time consuming task**

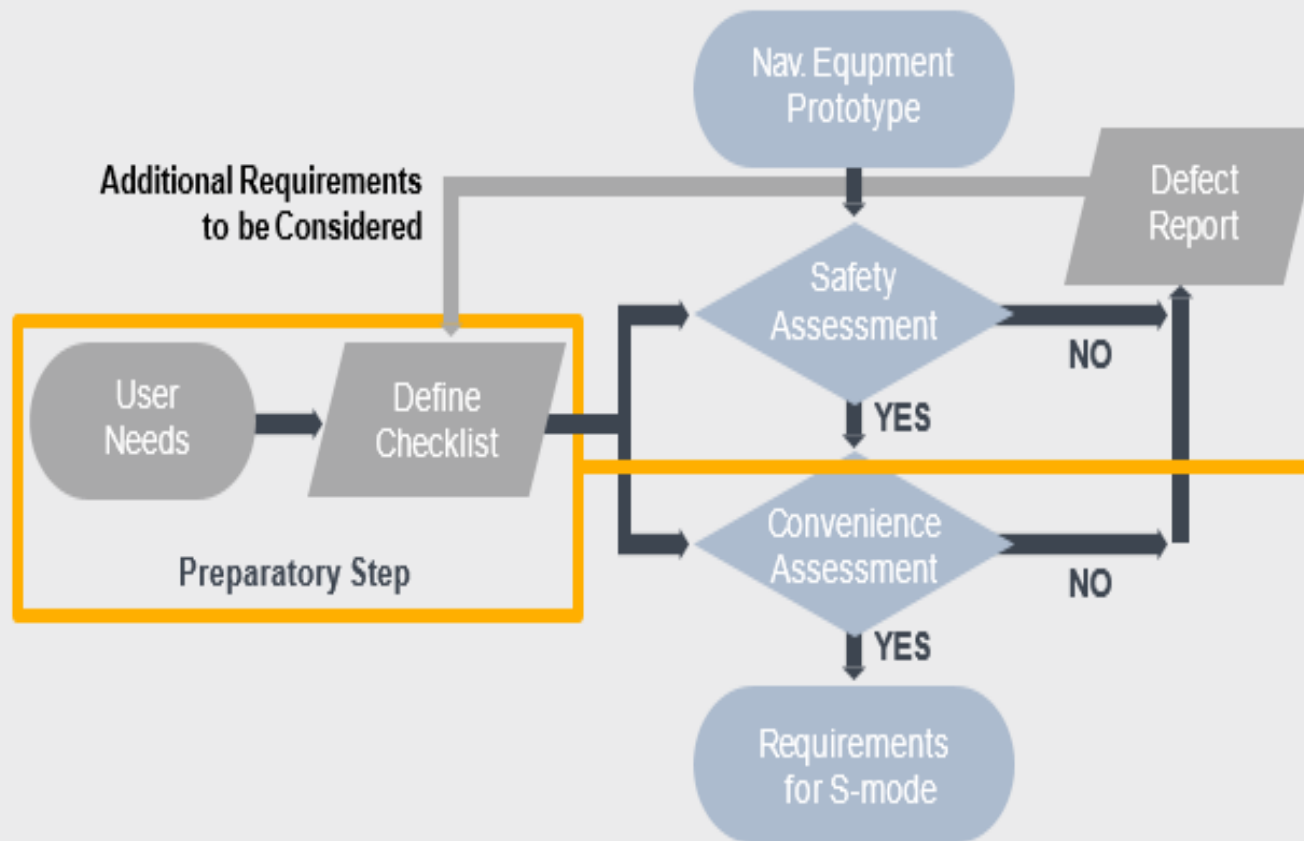
Purpose

Development of unified and user-friendly S-Mode could help **a right decision making for safe navigation**

Steps of the Procedure



Steps of the Procedure



Steps of the Procedure

Captain,
26yrs of sea-going experience



"If ECDIS were locked down to a minimal set of features it would no longer be an ECDIS. Personally, I disagree with the notion of S-mode."

Pilot,
18yrs of sea-going experience



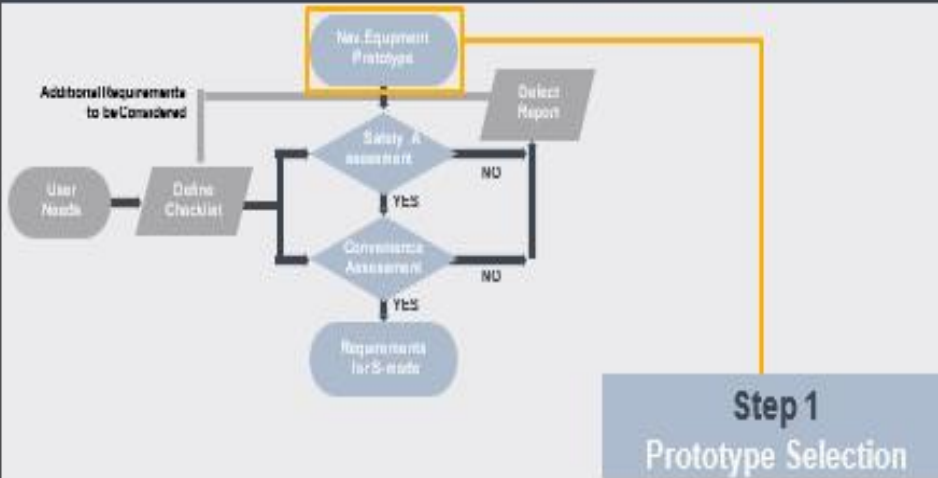
"Keep it simple. Currently, there is too much function and mode for radar, I think head up and relative motion would be enough."

Captain,
14yrs of sea-going experience



"I hope that bridge equipment has same menu format, function, and terminology. It took me some times until I get used to with the new ship"

Steps of the Procedure



Steps of the Procedure

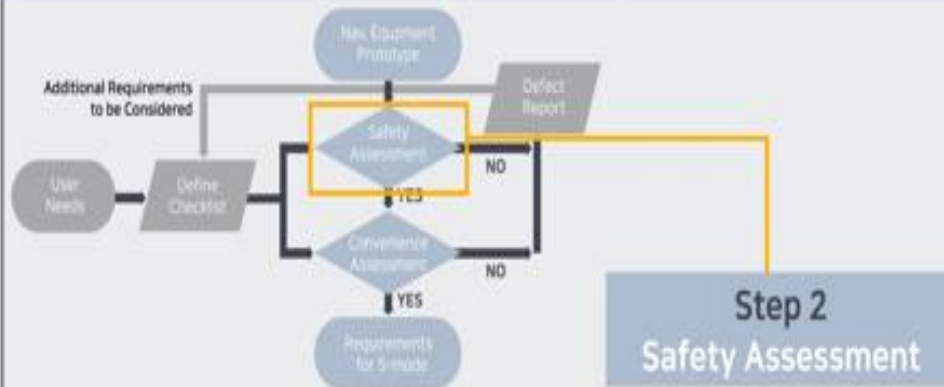


Table 1 – Safety Assessment Criteria

Criteria	Prototype
Function	
Confirm that equipment could be utilized fully in emergency situation such as vessel was on a collision course	Yes
Confirm the functional alarms generated with identical sound	Yes
Information	
Confirm that equipment provides identical navigation information with simple and identical operation	Yes
Confirm the equipment perform above the minimum standard	Yes
Confirm the enough number of relevant information is provided	Yes
Interface	
Confirm the equipment durability during the heavy weather	Yes

Steps of the Procedure

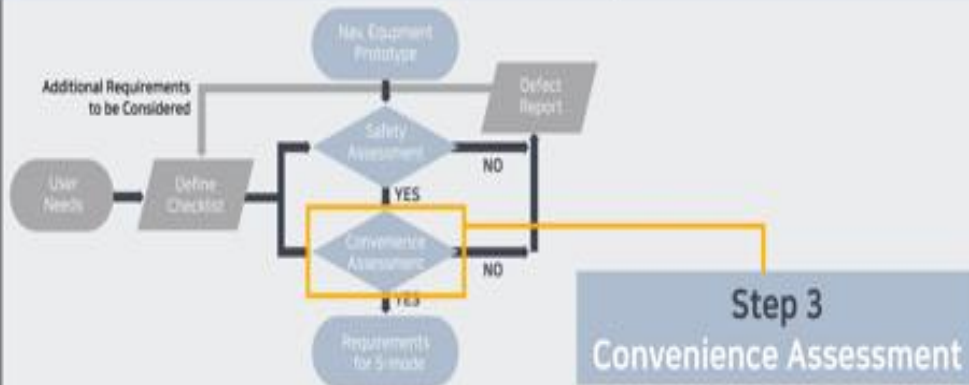
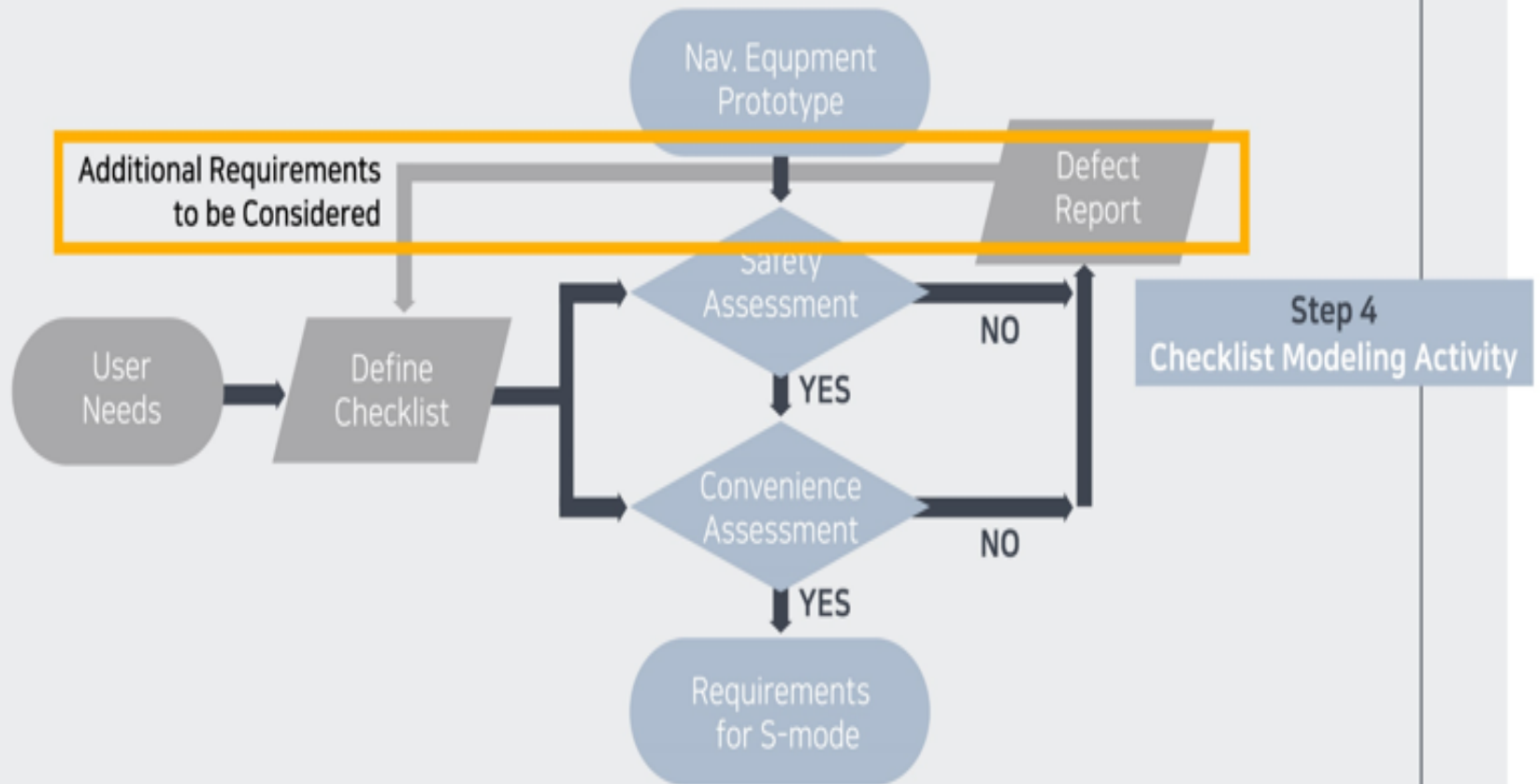


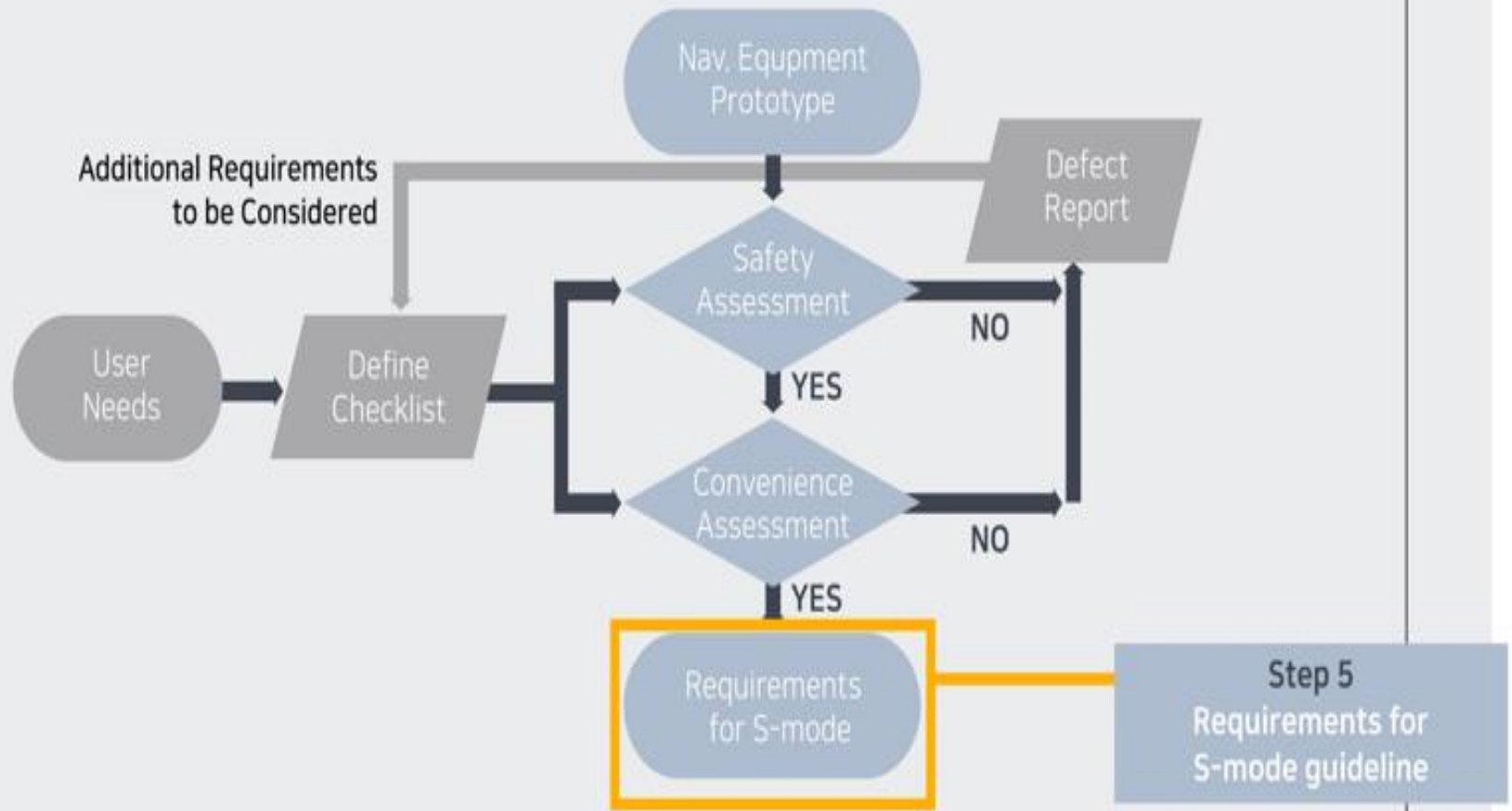
Table 2 - Convenience Assessment Criteria

Criteria	Prototype
Function	
Confirm that change of settings is not affecting the operation	Yes
Information	
Confirm that the relevant navigation information is provided with	Yes
Confirm that the information given is presented in precise manner	Yes
Interface	
Confirm that equipment provide unified hardware tool	Yes
Confirm that the equipment provide identical menu system	Yes
Confirm that interface of its equipment is intuitive	Yes

Steps of the Procedure



Steps of the Procedure



Expected Effects



Procedure for development of a S-mode Guideline will bring in many positive aspects **including reducing the accidents resulted from human element, promoting IMO's high action plan implementation related to E-navigation, and building a consensus between stakeholders.**



Human Error



e-Navigation



Unified Guideline

Summary

What is S-Mode

Standardized navigation equipment to enhance
the safety at sea from user-perspective

Why S-Mode is needed?

It can decrease the rate of marine accidents
It can help navigators make a right decision at sea

S-Mode, the past and the future

2008

The concept of S-Mode was given shape

2015

Planned to develop a S-Mode guideline

2019

A S-Mode guideline development to be complete

Summary

Why our procedure must be developed?

No available standard function or items
Much confliction between stakeholders

Our procedure

Consists of 5 steps excluding the preparatory step.
Through this procedure requirements of **S-Mode guideline** can be complete

Expected effects of our procedure

Bring about the **reduction of human error** after the application of S-Mode
Solve the task **S1 of e-navigation SIP**
Settle the **opposite opinions** between manufacturers, user, and etc.

Submit to NCSR 5

Enhancing technical operational and safe management standards

Development and implementation of e-navigation

SUMMARY

Executive summary: This document provides information on work undertaken by Republic of Korea on the implementation plan of the procedure on standardization of navigational equipment. This plan is to be developed in the following manner. Background comprises of desperate suggestion of the enforcement of the procedure due to the lack of the detailed concept. The relevant data of the procedure are included in the Introduction. Comprehensive steps of the procedure are proposed in Guideline for the procedure for use of navigational equipment and also block diagram included in the annex.

Strategic direction: 5.2

High-level action: 5.2.6

Planned output: No related provisions

Action to be taken: paragraph 12

Related documents: MSC 81/23/10; MSC 85/26/Add.1; MSC 94/21; MSC 94/18/8; MSC 94/18/10; MSC 94/28; MSC 95/19/8; MSC 95/19/12; MSC 95/19/14; NAV 54/13/1; NCSR 2/INF.11; NCSR 3/INF.17

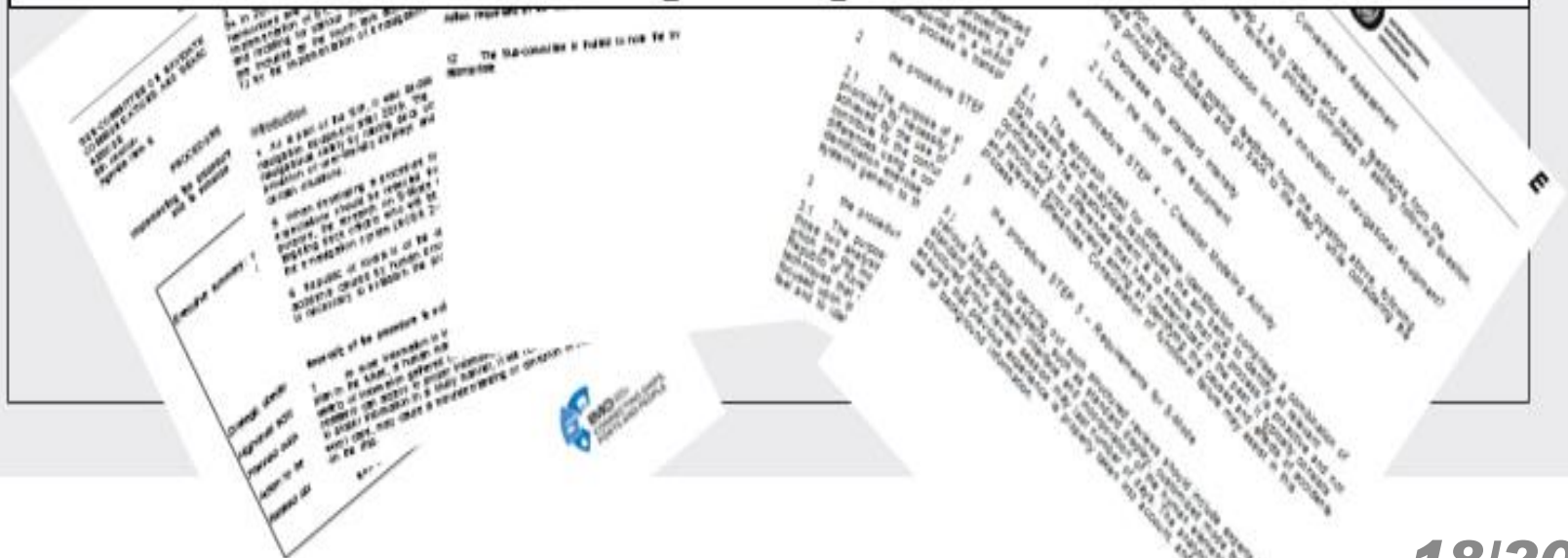
Related documents: MSC 81/23/10; MSC 85/26/Add.1; MSC 94/21; MSC 94/18/8; MSC 94/18/10; MSC 94/28; MSC 95/19/8; MSC 95/19/12; MSC 95/19/14; NAV 54/13/1; NCSR 2/INF.11; NCSR 3/INF.17



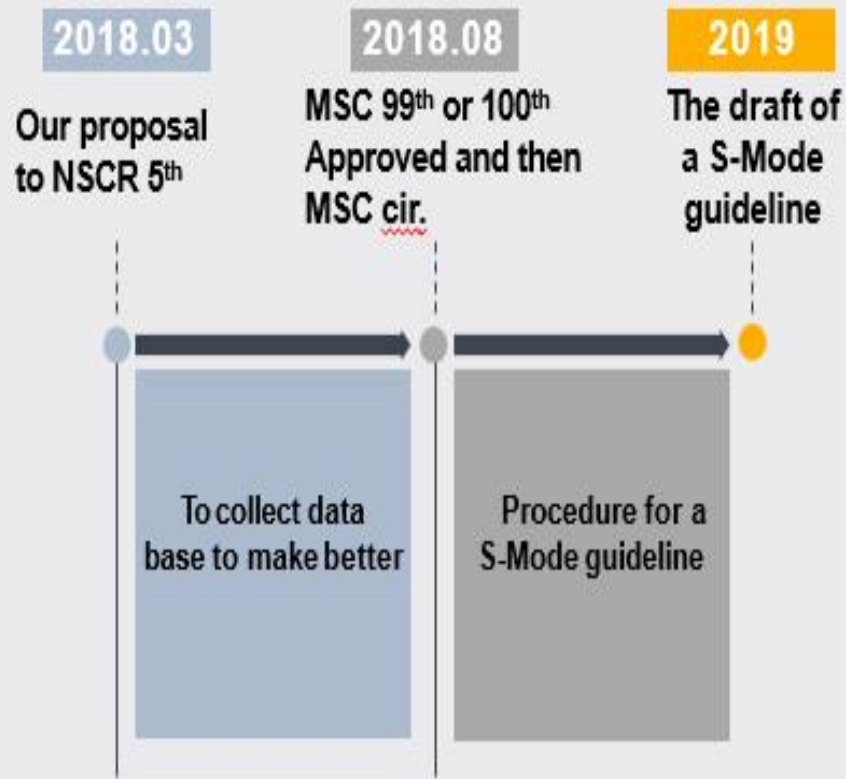
Submit to NCSR5



Our proposal



How our proposal goes



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**"The safety is not something we await,
it is something we make"**

Reference

[2nd & 5th slides]

NAV(Sub-Committee on Safety of Navigation) 54/13/1

[3rd slide]

NAV(Sub-Committee on Safety of Navigation) 59/6

NCSR(Sub-Committee on Navigation, Communications and Search and Rescue) 1/28

[4th slide]

MSC(Maritime Safety Committee) 95/19/8

[8th slide]

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THANK YOU FOR YOUR ATTENTION