

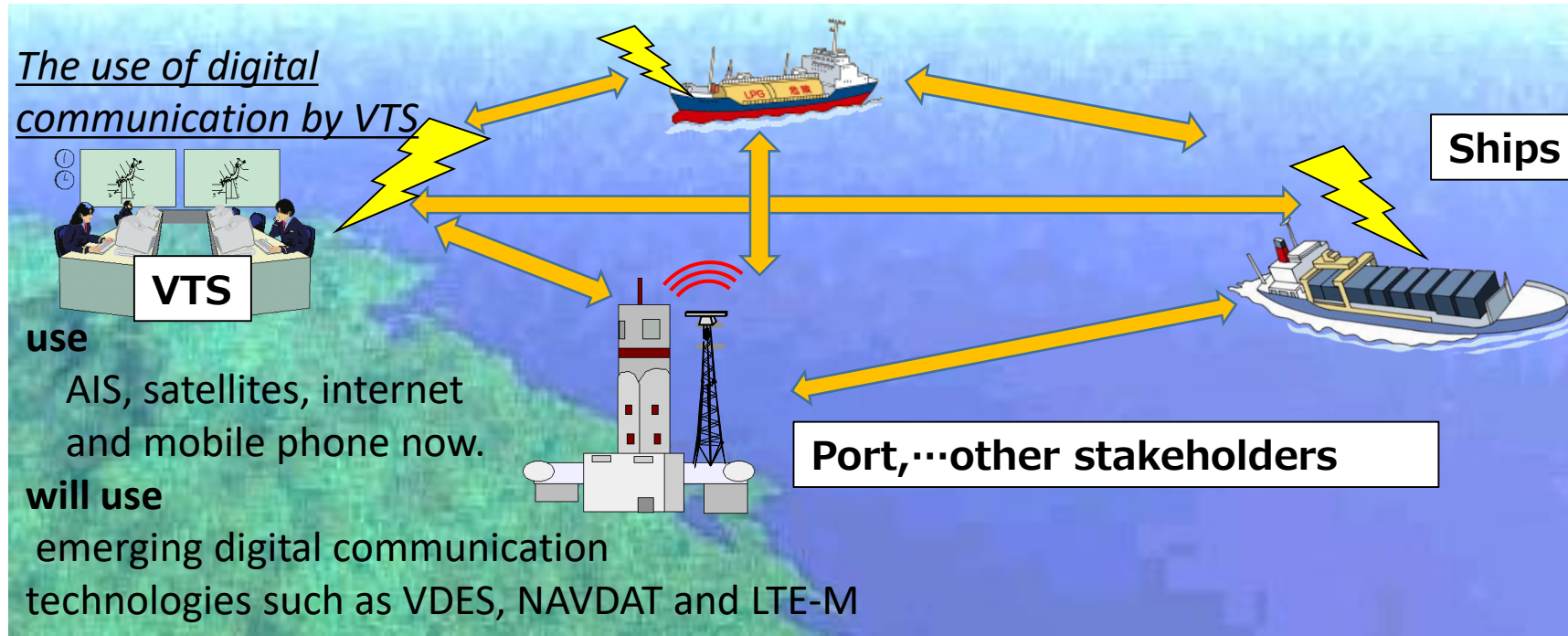
The report of JCG meeting - Digital Communication in VTS

March 2019

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Maritime Traffic Department,
Japan Coast Guard

- Background
- Overview
- Presentation
- Conclusion and Recommendation
- Technical tour



JCG hosted the expert meeting to

- exchange knowledge, experience and information
- identify the gaps and challenges of digital communication technologies

GOAL

- To facilitate understanding of the current use and/or the future plan of digital communication in each nation
- To identify gaps and challenges on the use of digital communication in VTS
- Based on the gaps and challenges identified, to develop possible solutions
- To develop report and recommendations



Overview -Digital Communication in VTS-



Opening speech



Participants



Exchange of opinions

Date : 12~15 March 2019
Location : The Japan Coast Guard Headquarters
Participants : Overseas experts (Australia, Norway, Singapore, The United States)
Japanese VTS makers
Outline : Discussed and made solutions about existing situation and expansion of the use of digital communication technology in VTS with overseas experts of VTS and digital communication technology and Japanese VTS makers. The draft solutions was reported to IALA for more discussion. After meeting, participants went to Tokyo-wan VTS center, YOKOHAMA JCG base and ASAKUSA for technical tour.

“Use of Digital Communication Technology in VTS”

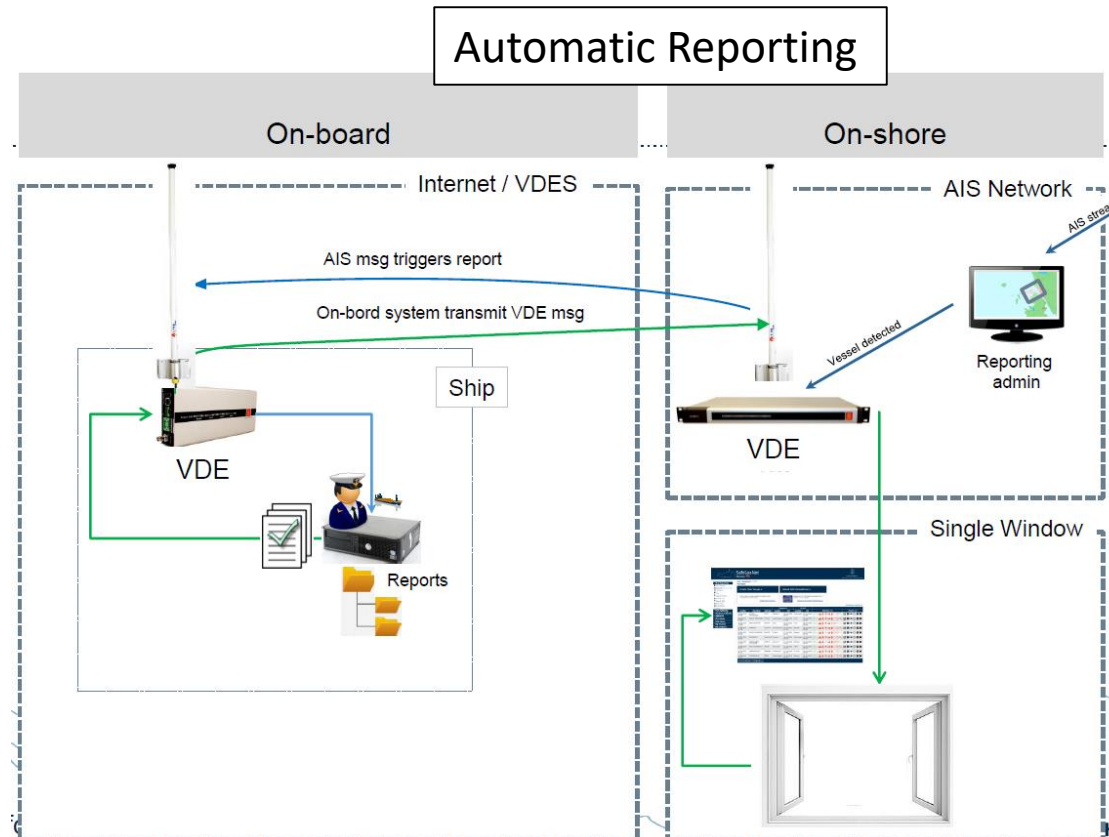
Conclusion

- “Digital Communication” in VTS to be clearly defined
- The advantages of digitization for VTS
- Consider
 - Reviewing/enhancing existing practices
 - Identifying new practices that digitization
- The development of IALA standards for VTS voice communications, including structure and phraseology standardised VTS digital communications
- More “Proactive VTS”
- VTS will make a major contribution to Maritime Services.



“The Use of digital communication technology in VTS –Norwegian approach”

- *Automatic Reporting* is a central part of the future
- VDES will play an important role in the communication for *Automatic Reporting*
- Technical and operational concepts for reporting needs to be further developed
- Focus on standards, harmonization and security

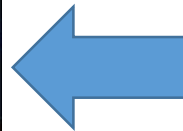


“VHF Data Exchange System for future maritime e-navigation”

Next Generation Vessel Traffic Management System Innovation Program was given, which was then linked to the need for strong and robust communication technologies.

In this regard, MPA introduced the work Singapore was doing on VHF Data Exchange System (Mobile Station), which culminated in sea trials done in mid-2018.

Our low profile antenna is about **25cm**

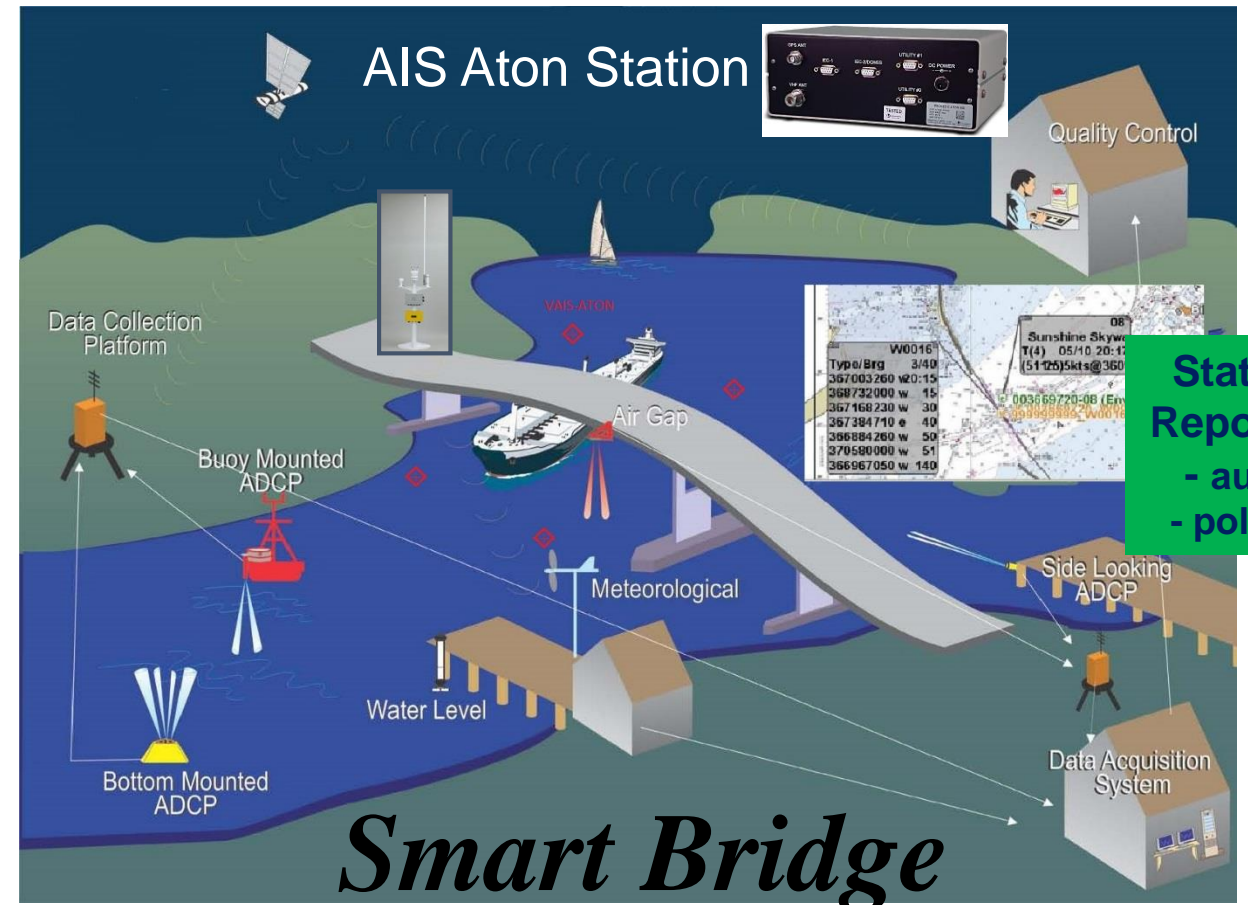
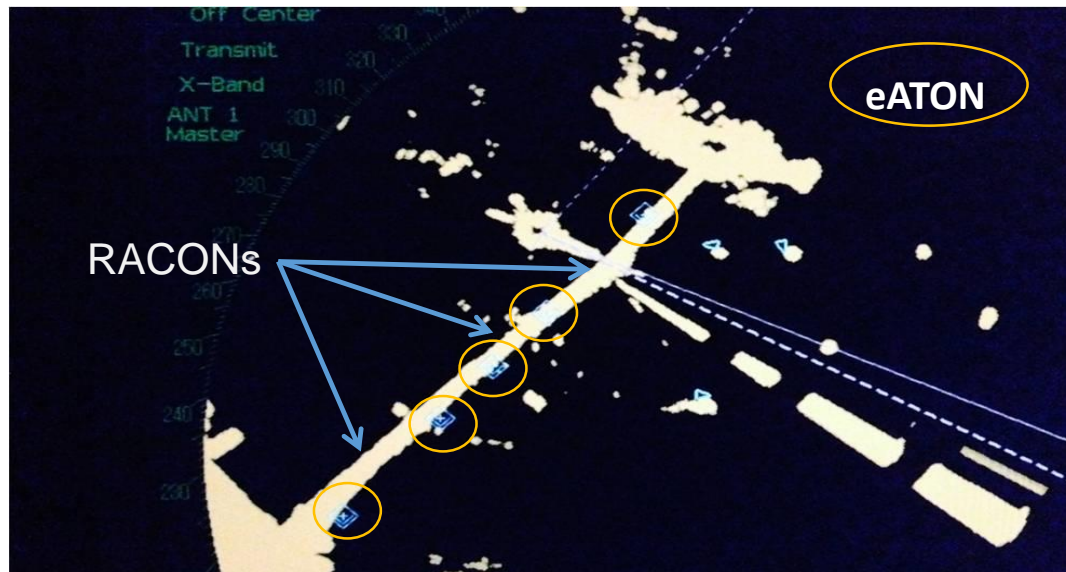
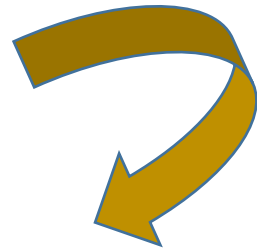


Typical Maritime VHF band antenna is about **1m in length**

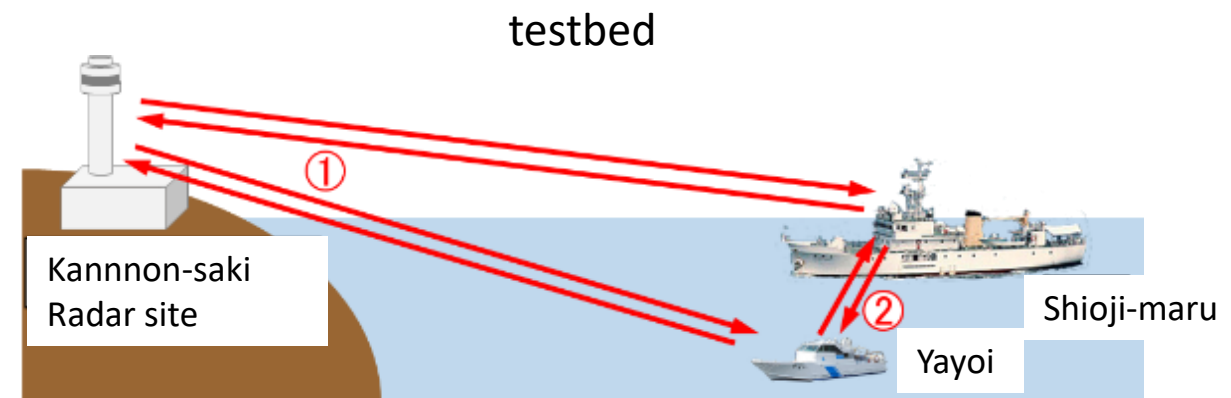
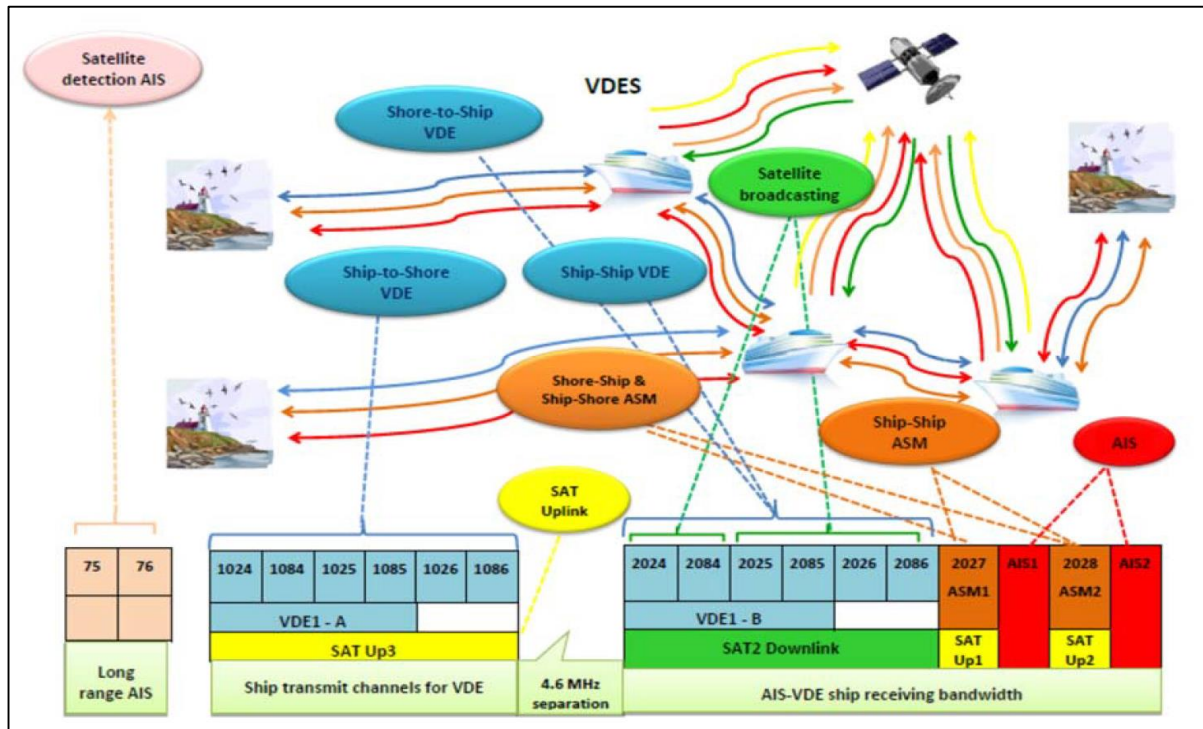
“Waterway Management”

★SMART BRIDGE

Some background history of Vessel Traffic Services in the U.S. which highlighted how they and the bridge-to-bridge radiotelephone requirement came into being at the same time.



- the practical needs for VDES in the maritime stakeholders in Japan
- the focus group of using VDES for maritime traffic safety established in 2017
- test-bed of VDES



The experts developed the following conclusions and recommendations for IALA's consideration:

○Request for IALA

- Preparing a high-level discussion paper to identify and communicate the benefits of digital communications technologies to all stakeholders.

- Consider the application of digital communications in all guidance documents currently being prepared, where applicable.

- Consider developing a definition for digital communication in VTS

“Digital communication in Vessel Traffic Service is exchange of validated information and data in interaction between ship and shore.”

○The portrayal of information

○The IALA symposium at Rotterdam in 2020 and IHMA Congress in 2020

○The output of the IALA Workshop on initial operating capability phase for e-navigation services



Thank you for your kind attention.

