



Shipmasters' and Deck Officers' Experience with Bridge Alerts

Background

IFSMA posted a survey and collected information from member association shipmasters and deck officers on their bridge alerts experience onboard their current or most recent vessel.

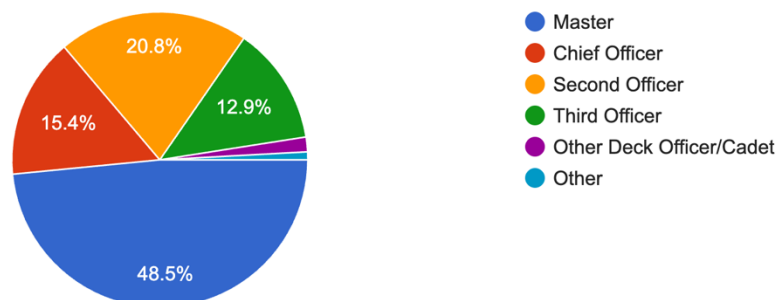
The information has helped to formulate *IFSMA's* understanding of bridge alert management challenges and together with the *International Maritime Pilots' Association (IMPA)* will help to prepare for future submissions at *IMO*.

The information can also be used by *IFSMA* member organisations, in order to raise awareness of this subject with appropriate stakeholders.

Total responses: 808

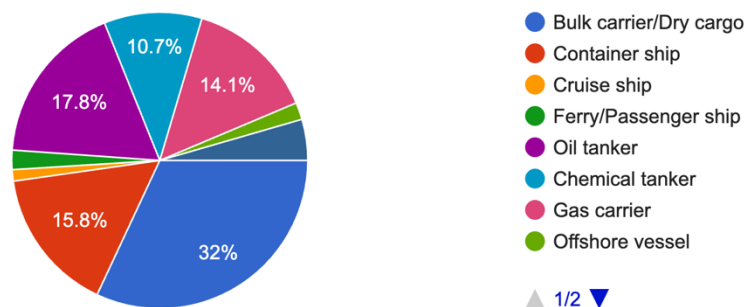
What was your position on your current or most recently served ship?

807 responses



Which best describes the ship type of your current or most recently served ship?

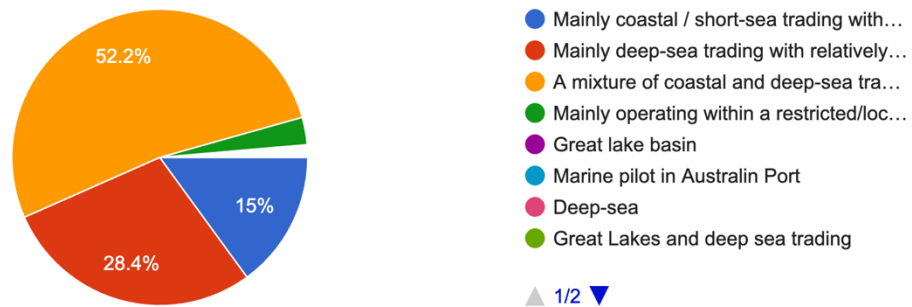
804 responses





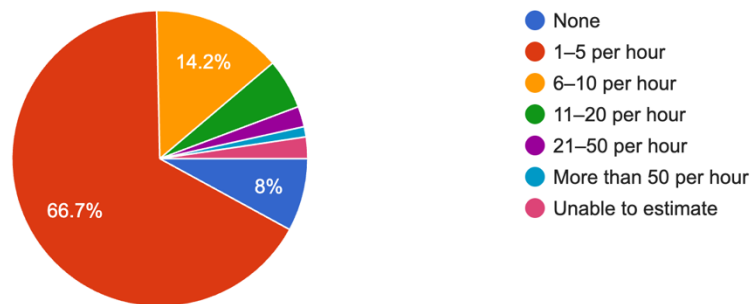
Which best describes the ship's usual trading or operating pattern?

802 responses



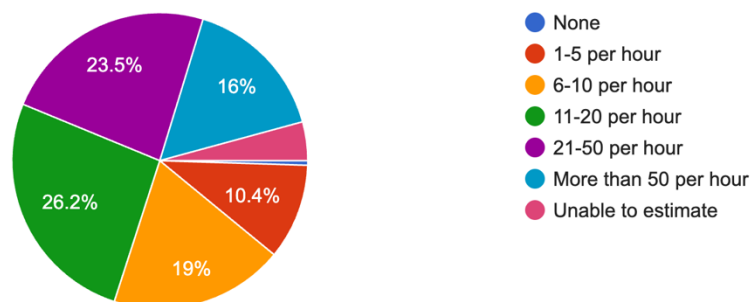
Approximately how many bridge alerts does the bridge team normally receive while operating in low-density traffic / deep-sea areas?

805 responses



Approximately how many bridge alerts does the bridge team normally receive while operating in pilotage, coastal or high-density traffic areas?

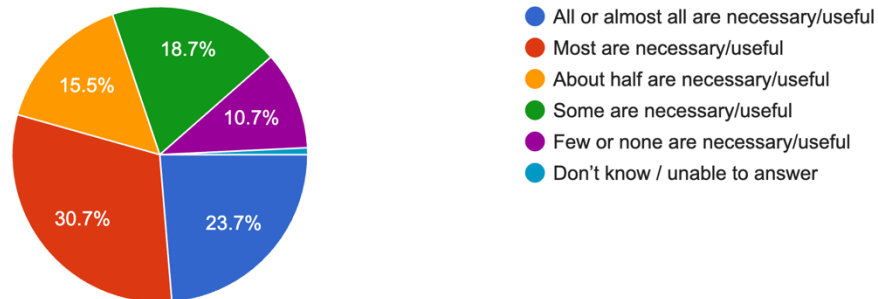
804 responses





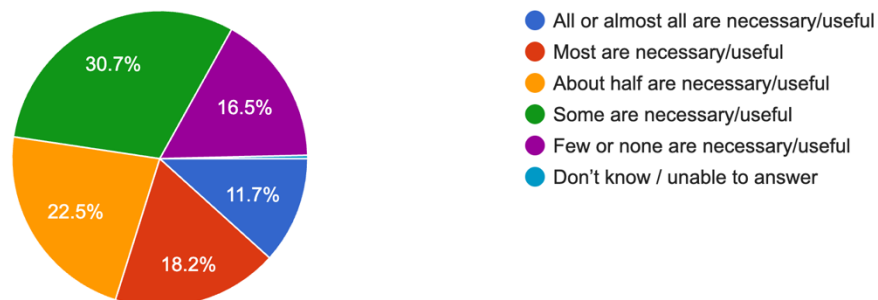
During low-density traffic / deep-sea operations, how would you describe the proportion of bridge alerts that are necessary or useful to the bridge team?

802 responses



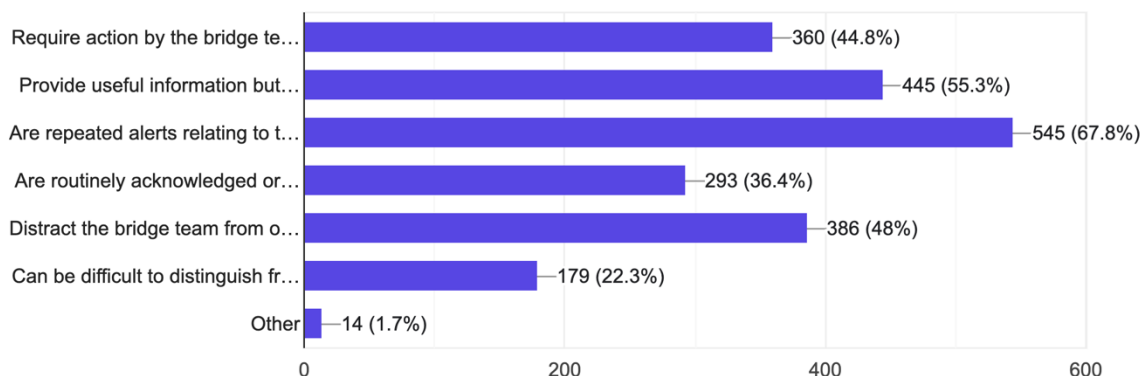
During pilotage, coastal or high-density traffic operations, how would you describe the proportion of bridge alerts that are necessary or useful to the bridge team?

804 responses



Which of the following best describes the bridge alerts you experience? Select all that apply.

804 responses



NB: Full wording of options above:

Require action by the bridge team; Provide useful information but normally require no action;

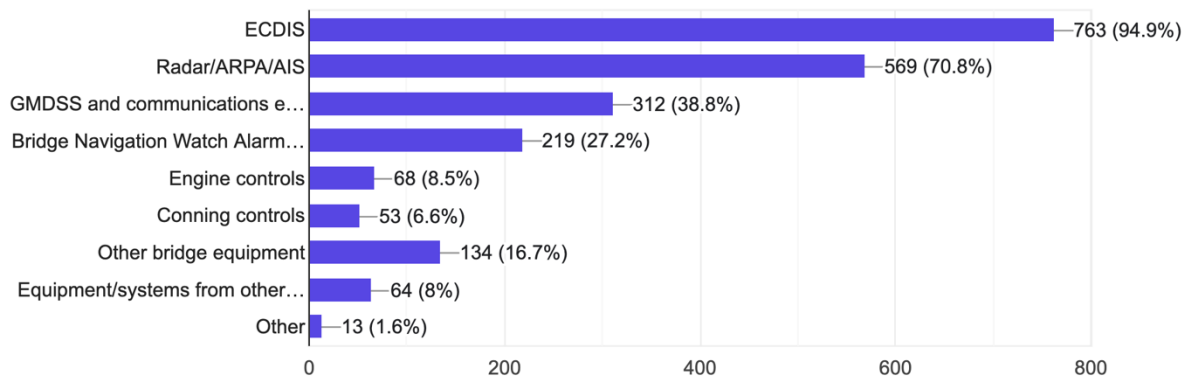
Are repeated alerts relating to the same condition or situation; Are routinely acknowledged or silenced without action;

Distract the bridge team from other bridge duties; Can be difficult to distinguish from other alerts



Which equipment or systems generate significant numbers of bridge alerts during pilotage, coastal or high-density traffic operations? Select all that apply.

804 responses

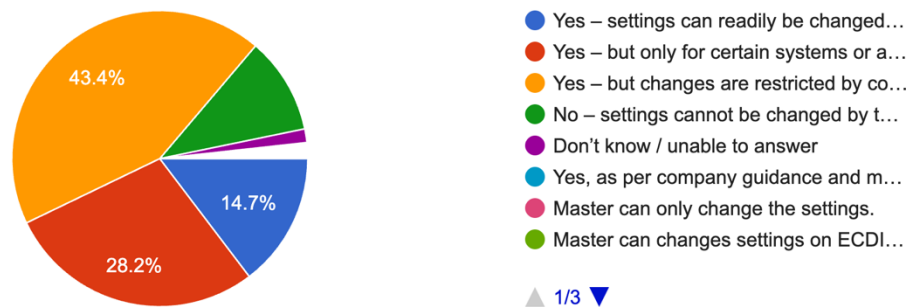


NB: Full wording of options above:

ECDIS; Radar/ARPA/AIS; GMDSS and communications equipment; Bridge Navigation Watch Alarm System; Engine controls; Conning controls; Other bridge equipment; Equipment/systems from other areas of the ship

On your current or most recently served ship, could the Master adjust bridge alert settings according to the area of navigation and the operational priorities of the bridge team?

805 responses

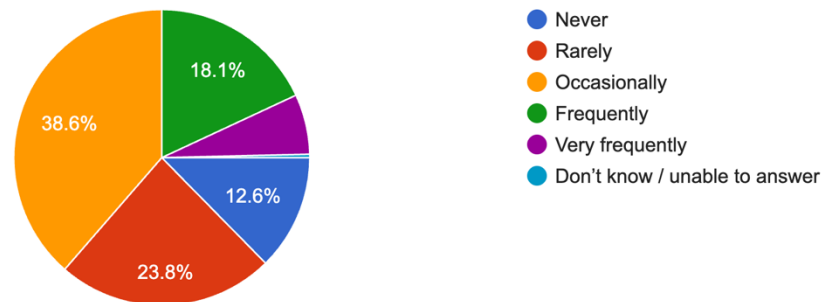


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Have you experienced a situation where the number or nature of bridge alerts made it more difficult for the bridge team to identify or respond to an important alert?

808 responses



Summary of written comments provided by respondents

300 written comments were received.

Key finding

A recurring concern is that alerts can lose value when numerous notifications are generated in quick succession, particularly where the bridge team is already managing a busy navigational situation. In such circumstances, the issue is not necessarily the existence of an individual alert; it is the cumulative alert burden and the risk that important information becomes harder to identify among repeated or low-value notifications.

Themes requiring particular attention

Theme	Comments mentioning theme*	Share of comments*
Alarm overload / alert fatigue	33	11.0%
Pilotage / pilot workload	146	48.7%
High-density / congested traffic	79	26.3%
Unnecessary / irrelevant alarms	34	11.3%
Timing / insufficient warning	1	0.3%
Clarity / prioritisation of alerts	54	18.0%
Traffic consequences / manoeuvring impact	42	14.0%

* Themes overlap: one comment can appear in several themes.



1. Alert overload and fatigue

The relevant issue is the cumulative number of alerts presented to the bridge team. Repeated or low-value alarms can increase the volume of information that must be processed and may devalue an alert that requires immediate attention.

2. Pilotage and bridge-team workload

During pilotage, the bridge team is already dealing with vessel control, communications, traffic assessment, pilot-master information exchange and other navigational tasks. An alert that might be useful in isolation, but will distract the bridge-team when it arrives alongside many other notifications.

3. High-density traffic

In busy approaches, channels, ports and other high-density traffic areas, bridge teams may encounter several potential alerts within a short period. The comments therefore support examining whether alerting should be more sensitive to location rather than applying the same alert setting uniformly.

4. Prioritisation matters

The distinction between a critical alert and an informational or low-priority notification is important. Where many alerts occur together, clear prioritisation and concise information can help the bridge team identify which events require action.

Overall Conclusion

The *IFSMA* survey, based on 808 responses from shipmasters and deck officers, highlights concern regarding the management and frequency of bridge alerts. Of the respondents, 300 provided written comments.

The principal finding is that the cumulative burden of multiple alerts can reduce their value, particularly when numerous notifications are generated in quick succession during busy navigational situations. Repeated or low-value alerts may make it more difficult for bridge teams to identify information requiring immediate attention and can distract the bridge-team during critical operations.

Bridge team workload during pilotage was the most prominent theme, appearing in 48.7% of comments, while high-density or congested traffic was identified in 26.3%. Concerns regarding clarity and prioritisation of alerts occurred in 18.0%, with traffic and manoeuvring impacts in 14.0% and unnecessary or irrelevant alarms in 11.3%.

From an *IFSMA* perspective, the findings emphasise that bridge alert management impacts upon bridge-team workload and their operational priorities. During pilotage and in high-density traffic, alerts need appropriate prioritisation while having consideration for the ship's operation, rather than having uniform alert settings.

The outcome of this survey will be shared with the *International Maritime Pilots' Association (IMPA)* who initially highlighted this issue at *IMO*.
