

## 4. Questionnaire Results Regarding Effectiveness of AIS Device

JTSB conducted a questionnaire survey of fishing vessels in Okinawa Prefecture, where the installation of simple AIS\* is widespread, on the use and effectiveness of simple AIS, with the cooperation of the prefecture's fishing cooperatives.

The survey included items such as if AIS is useful, the degree to which AIS contributes to the reduction of accidents, and areas for future improvement. The following is a summary of the responses received from a total of 378 owners of vessels equipped with simple AIS (52.7% response rate) through fishery cooperatives (717 vessels belonging to 37 cooperatives).

These survey results suggest that **the installation of AIS** on small vessels, such as fishing vessels, as an aid to lookout, is effective **in preventing collisions**.

\* "Simple AIS" refers to a device with a smaller output than AIS, which is required by the international convention to be installed on certain ships (all passenger ships, vessels of 300 tons or more engaged in international navigation, and vessels of 500 tons or more not engaged in international navigation). Simple AIS limits the information items transmitted and received to the vessel's name, position, speed, course, type, etc.

### What you feel by installing AIS

When asked if they thought the installation of AIS had reduced the number of accidents, **156 respondents (41.3%) answered "Yes, it has"**, followed by **118 respondents (31.2%) who answered "Yes, I think it has"**, accounting for approximately 70% of the total respondents. (See Fig. 6)

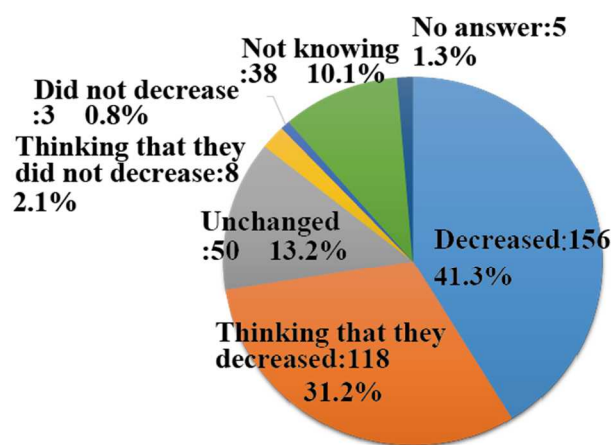


Figure 6: Responses to the question, "Do you think accidents have decreased?"

When asked if the installation of AIS had reduced the number of times they got a fright, **202 respondents (53.4%) answered "Yes, it has"**, followed by **75 respondents (19.8%) who answered "Yes, I feel it has"**, accounting for about 70% of the total respondents. (See Fig. 7)

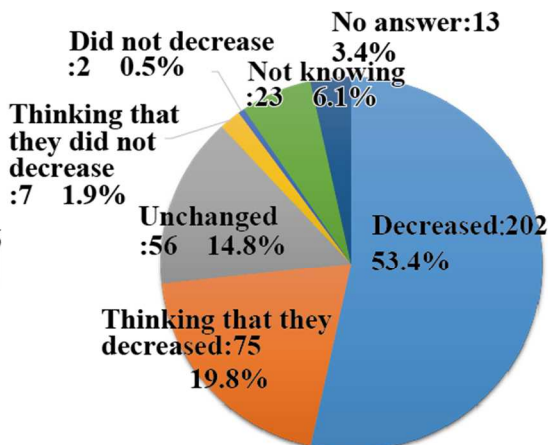


Figure 7: Responses to the question, "Do you think you have fewer frights?"

### Specific examples of frights

- When visibility is poor, such as on foggy days
- When there is a vessel or other object that is difficult to detect on radar
- When there is a lack of mutual communication that results in an abnormal approach
- When the distance with the other vessel was quite close without knowing it
- While we were taking a nap, a large ship did not notice us, and when the radar alarm went off, we hurriedly avoided the ship.
- Many vessels do not have AIS on.
- AIS installation allows us to see the movements of the other vessel, so when the other vessel comes closer than necessary

When asked if they thought AIS was "helpful," **305 (80.7%) responded "helpful," followed by 50 (13.2%) who responded "A little useful," making up approximately 90% of the total respondents.** (See Fig. 8).

When asked about the specific benefits of AIS installation (multiple responses), the most common response was "knowing the position of other vessels" (306 respondents), followed by "informing the position of my vessel" (247 respondents), and so on. (See Fig. 9)

In addition, specific examples of how they found AIS to be useful were: "It shows the heading speed of other vessels," "It shows up before radar," "It can recognize vessels that are not on radar," and "It has helped large ships avoid my vessel."

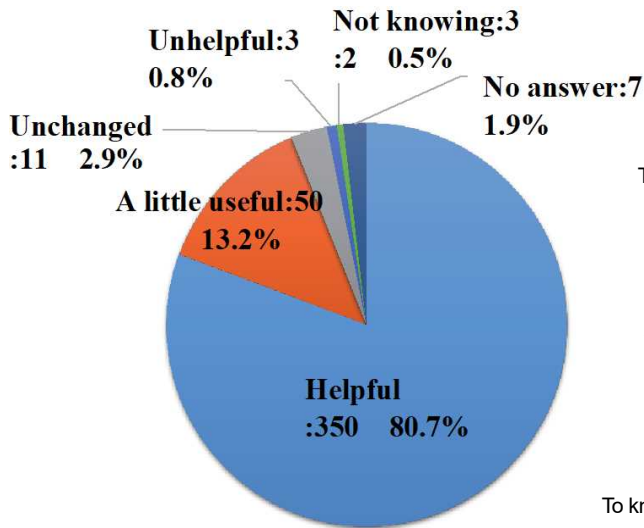


Figure 8: Responses to the question "Do you think AIS is helpful?"

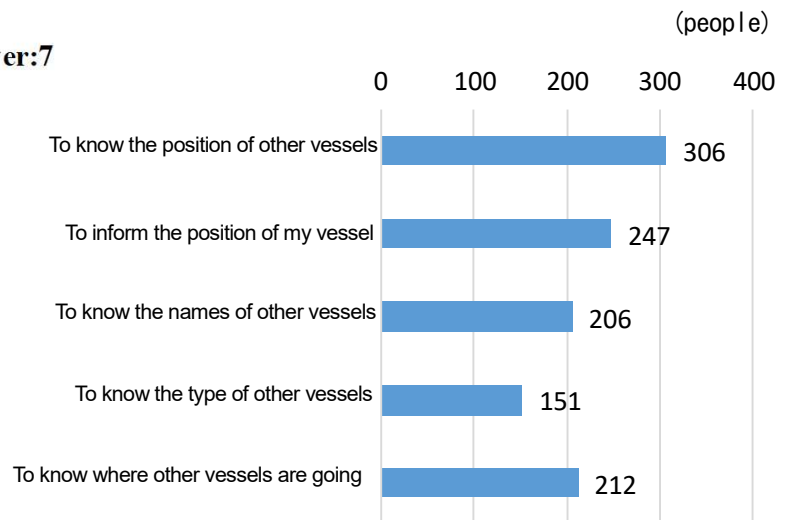


Figure 9: Responses to the question "What are specific benefits of AIS installation?"

When asked if they no longer feel threatened by other vessels approaching their vessels, **97 respondents (25.7%) answered "No" and 191 respondents (50.5%) answered "Less", accounting for about 80% of the total.** (See Fig. 10)

When asked if it was easier to know what other vessels are like, **251 respondents (66.4%) answered "easier to know," followed by 47 (12.4%) who answered "a little easier to know," together accounting for about 80% of the responses.** (See Fig. 11)

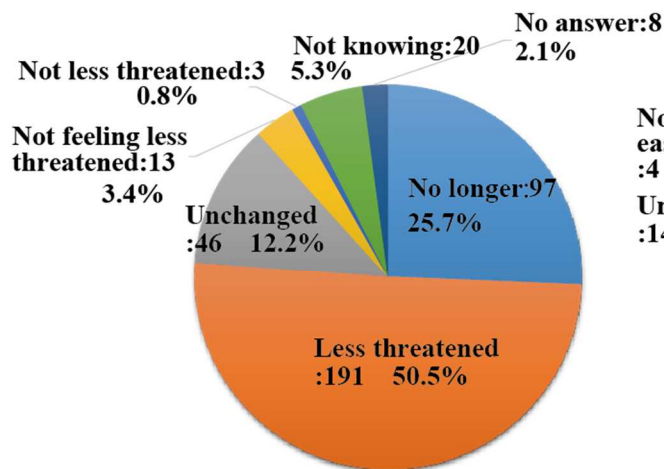


Figure 10: Responses to the question, "Do you no longer feel threatened?"

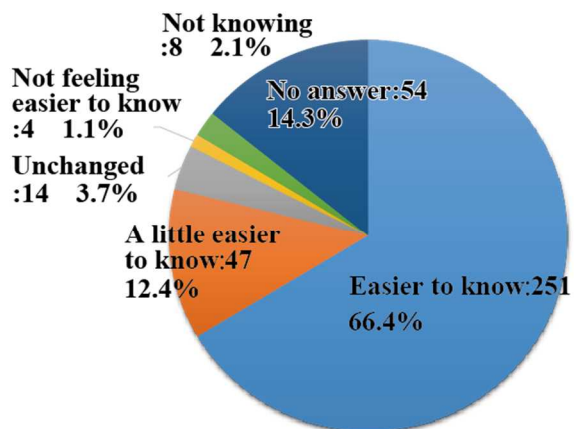


Figure 11: Responses to the question, "Is it easier to know what other vessels are like?"