



Case Study 2: Near-miss between Incoming and Outgoing Vessels

Welcome to DigiMar case study videos!

To support learning, the case studies in these videos are based on real-world accidents and incidents with authentic VTS-vessel communication, including mistakes or deviations. However, content has been modified, adjusted, and simulated for instructional purposes. The names of ships and ports are anonymized.

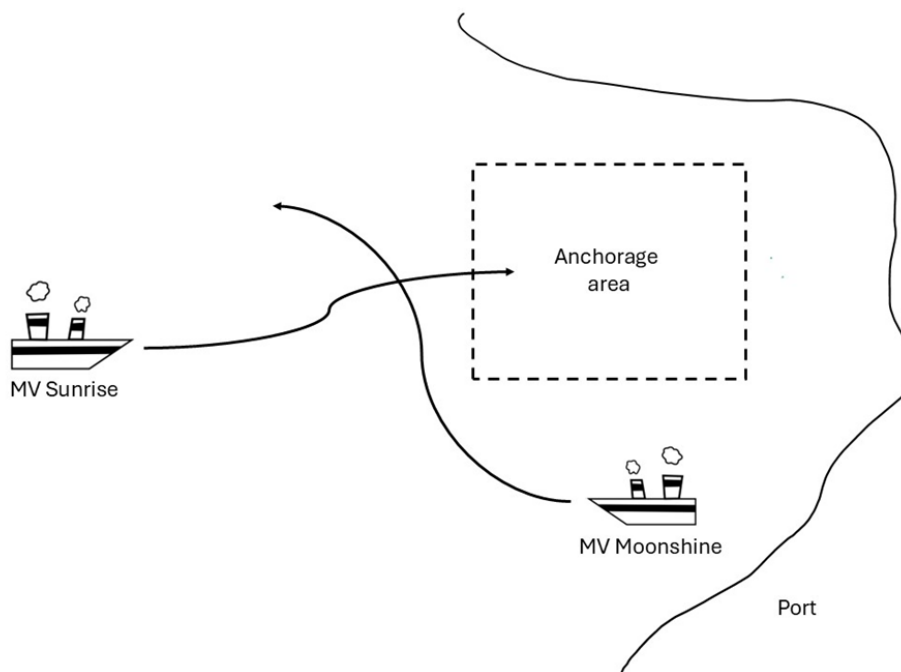
You will find suggestions for improving communication at the end of each video. Also, the key issues in maritime communication identified in the accident investigation report will be explained.

In this case study, an incoming and an outgoing vessel will avoid a near-miss situation resulting from a communication misunderstanding.

First reflect on the following questions:

- How can the use of contracted forms, such as **won't**, cause communication ambiguity?
- How can clear communication, avoiding the use of unnecessary words, prevent the occurrence of a potentially critical situation?
- Which message markers can be used by the VTS operator when a potentially critical situation develops?

Let us have a look at the initial situation. Motor Vessel Sunrise is travelling eastward toward her anchoring position. Motor Vessel Moonshine is departing the port. The lines indicate the tracks they will follow.





Motor Vessel Moonshine contacts Motor Vessel Sunrise.

Motor Vessel Moonshine: Motor Vessel Sunrise, this is Motor Vessel Moonshine.

Motor Vessel Sunrise: Motor Vessel Moonshine, this is Motor Vessel Sunrise.

Motor Vessel Moonshine: What is your intention? You are going drop anchor?

Motor Vessel Sunrise: My intention, sir, are going to, to drop anchor.

Motor Vessel Moonshine: On this position, correct, you won't cross ahead of me?

Motor Vessel Sunrise: Yes, sir, affirmative, I want to cross ahead of you.

Motor Vessel Moonshine: Copy on that, thank you, back to one six.

Is it clear whether Motor Vessel Sunrise will or will not cross ahead of Motor Vessel Moonshine?

Motor Vessel Sunrise slightly reduces her speed. The VTS operator contacts Motor Vessel Moonshine.

Digimar VTS: Motor Vessel Moonshine, this is Digimar VTS. Over.

Motor Vessel Moonshine: Digimar VTS, this is Motor Vessel Moonshine. Over.

Digimar VTS: Yes, take care, there is one small vessel on your port side.

Motor Vessel Moonshine: Yes, we already talked to them, they said they going drop anchor, they won't pass ahead of us.

Motor Vessel Sunrise increases her speed. Digimar VTS calls Motor Vessel Sunrise. Motor Vessel Moonshine joins the conversation.



Digimar VTS: Motor Vessel Sunrise, this is Digimar VTS. Over.

Motor Vessel Sunrise: Yes, Digimar VTS.

Digimar VTS: From what I understood you are supposed to pass behind Motor Vessel Moonshine but now you are speeding up again so what is going on?

Motor Vessel Sunrise: I see the Motor Vessel Moonshine is to ... to moving.

Digimar VTS: Yea, but they expect you to pass behind them.

Motor Vessel Sunrise: We discuss with him before, now I don't know.

Motor Vessel Moonshine: What you discuss with me, you said you won't cross ahead of me, now you're just speeding up what's going ... what's you're doing?

Motor Vessel Sunrise continues proceeding on the same course. Digimar VTS calls Motor Vessel Moonshine.

Digimar VTS: Motor Vessel Moonshine, this is Digimar VTS. Over.

Motor Vessel Moonshine: Digimar VTS, this is Motor Vessel Moonshine. Over.

Digimar VTS: I suggest you to be wise and you slow down, because who knows.

Motor Vessel Moonshine: Yes, we're running full astern, I don't know what this vessel doing, he's speeding up, just before we pass ahead of her.

Digimar VTS: Well, I don't know what to say.

The collision was narrowly avoided.

Suggestions for improvement

Now, let us consider what could have been done differently in terms of maritime communication.

First, contracted forms need to be avoided in maritime communication, particularly "won't," as it sounds similar to "want." In this case, the use of "won't" created ambiguity between the two vessels. Motor Vessel Moonshine understood that Motor Vessel Sunrise would not cross ahead of her, whereas Motor Vessel Sunrise believed they had clearly expressed their intention to cross ahead of Motor Vessel Moonshine. An unambiguous alternative would be: "Question. What is your intention?"

Next, as per Resolution A.1158(32) of the International Maritime Organization from 2021, VTS needs to provide information that is timely and relevant. However, the VTS operator failed to recognize the miscommunication between the two vessels and did not respond promptly to the developing situation.



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Importantly, messages should be concise and clear, avoiding unnecessary words. Two examples illustrate this point.

When communicating with Motor Vessel Sunrise, the VTS operator said: “From what I understood you are supposed to pass behind Motor Vessel Moonshine but now you are speeding up again so what is going on?” A more effective alternative, also using a message marker, would be: “Question. What is your intention?”

When addressing Motor Vessel Moonshine, the VTS operator said: “I suggest you to be wise and you slow down, because who knows.” Also, the use of message markers is recommended to increase the probability of the purpose of the message being properly understood. A more effective alternative would therefore be: “Advice. Reduce your speed.”

Last but not least, the message marker “warning” could have been used by the VTS operator in the communication with both vessels to indicate increasing priority. For instance: “Warning. You are on a collision course with Motor Vessel Sunrise.”

The incident investigation identified the following key communication issues as contributing factors:

- ambiguity caused by the use of the contracted form "won't."
- lack of timely and relevant communication by the VTS operator.

Please take a moment to reflect on the key takeaways. Thank you for watching.