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Case Study 8: Traffic Coordination in Complex Overtaking Manoeuvres

Welcome to Digimar case study videos!

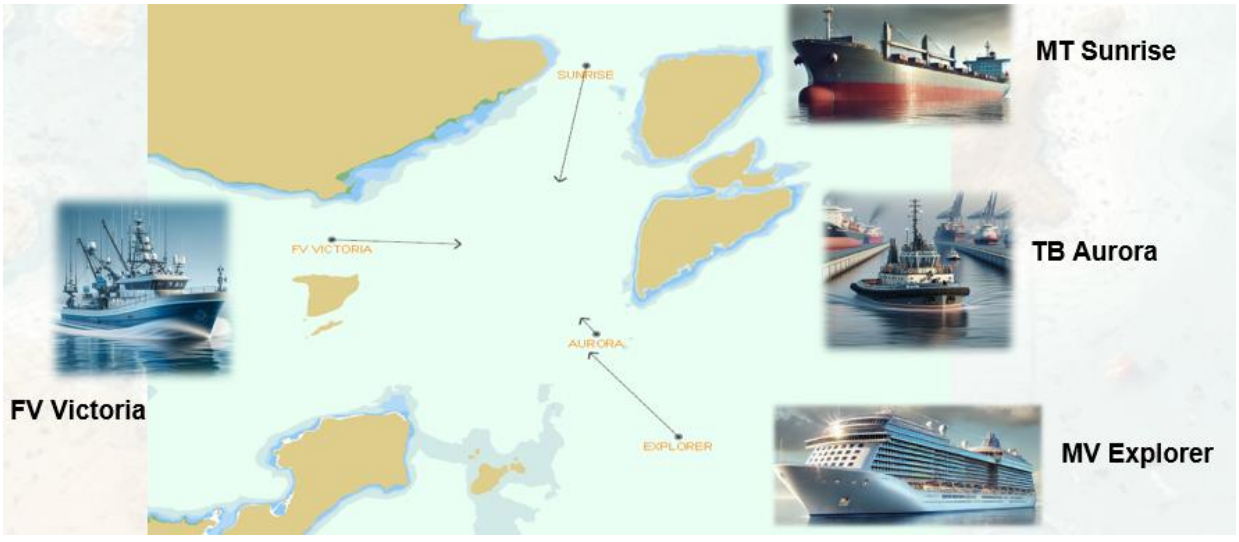
The case studies in these videos are based on real-world events with authentic VTS-vessel communication, including mistakes or deviations, to support learning. However, for instructional purposes content has been modified, adjusted, and simulated. The names of ships and ports are anonymized. You will find suggestions for improving communication at the end of each video.

In this case study, four vessels are about to meet and pass each other in a narrow fairway. Here are some important points to reflect upon before watching this video:

- How is the VTS operator addressing the vessels in the fairway to avoid ambiguity?
- What communication tools are used to comply with routine communication regulations to avoid a collision?
- How is the VTS operator ensuring that all the vessels have understood the advice and will act in a synchronized way to avoid collisions?

Four vessels will meet in a narrow fairway. Fishing Vessel Victoria is coming home, on her way into the VTS area. Motor Tanker Sunrise is on her way out of the VTS area. Tugboat Aurora is almost at a standstill, waiting to escort Motor Vessel Explorer. Motor Vessel Explorer is on her way into the VTS area.

Digimar VTS will call each vessel to give traffic information and coordinate safe navigation.



Digimar VTS calls Motor Tanker Sunrise to ask them about their intentions.

Digimar VTS: Sunrise, Digimar VTS, over.

Motor Tanker Sunrise: Digimar VTS, this is Motor Tanker Sunrise.

Digimar VTS: Motor Tanker Sunrise, Digimar VTS. Information: you have a short CPA with the Fishing Vessel Victoria on your starboard side. Question: What is your intention?

Motor Tanker Sunrise: I will pass on her astern.

Digimar VTS: Sunrise, Digimar VTS. Victoria will pass first. You will pass astern of Victoria.

Motor Tanker Sunrise: Digimar VTS, this is Sunrise, yes, that is correct.

It is important to notice that here, the VTS officer uses necessary elements of routine communication, to complete missing information and to clarify the traffic situation.

First, he uses message markers like Information and Question, to make Motor Tanker Sunrise alert. Second, as Motor Tanker Sunrise does not clarify how she will pass, the VTS officer describes her course himself, so that Motor Tanker Sunrise can easily confirm, which she also does. It is always important to repeat important information and to make sure it is confirmed.

Following the discussion with Motor Tanker Sunrise, Digimar VTS calls Fishing Vessel Victoria.

Digimar VTS: Victoria, Digimar VTS.

Fishing Vessel Victoria: Digimar VTS, Victoria.

Digimar VTS: Victoria, Digimar VTS, did you copy? You will pass first and Sunrise will pass astern of you.

Fishing Vessel Victoria: Digimar VTS, Victoria. I copy, Sunrise will pass astern of me.

Digimar VTS: Victoria, Digimar VTS. Question: Can you keep your course and speed until Sunrise has passed you?

Fishing Vessel Victoria: Digimar VTS, Victoria. I will keep my course and speed until Sunrise has passed me.

Digimar VTS: Victoria, Digimar VTS. Yes, you will keep course and speed.

Again, it is important to notice some necessary elements of routine communication.

Here, the VTS operator asks Fishing Vessel Victoria to confirm that they have received the previous radio exchange, with Motor Vessel Explorer. Second, as he knows the fairway best, the VTS operator advises Fishing Vessel Victoria on necessary course and speed to avoid collision.

Now, Digimar VTS must call Tugboat Aurora who is almost at a standstill in the fairway.

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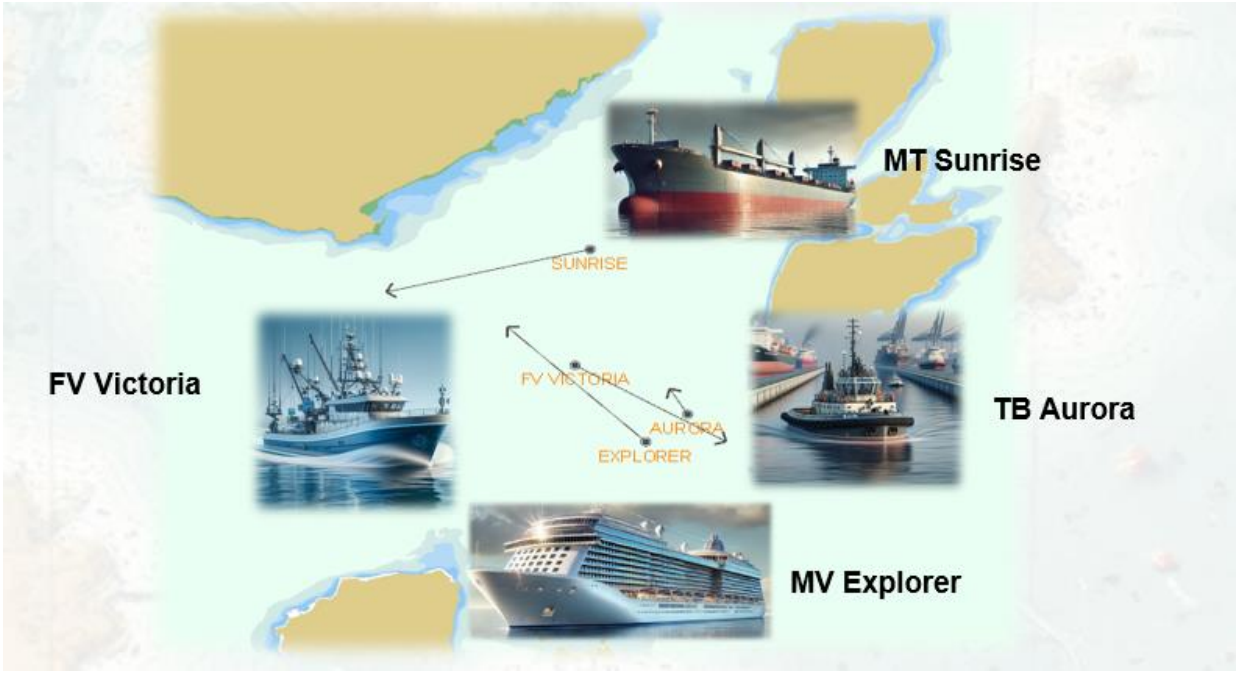
Digimar VTS: Aurora, Digimar VTS, please come in.
Tugboat Aurora: Digimar VTS, Aurora.
Digimar VTS: Aurora, Digimar VTS It looks like you are at a standstill. What is your intention?
Tugboat Aurora: Digimar VTS, Aurora. I am standing in position, awaiting Explorer to escort her to berth.
Digimar VTS: TB Aurora, Digimar VTS. Correct, you are awaiting escort.

The vessels are now quite close and the risk of collision is high. Sunrise and Victoria have passed ahead of Explorer, and Aurora is waiting. In the last exchange, Digimar VTS will help Motor Vessel Explorer to understand the situation and meet up with Tugboat Aurora safely.



Digimar VTS: Explorer, Digimar VTS, please come in.

Motor Vessel Explorer: Digimar VTS, this is Explorer.

Digimar VTS: Explorer, Digimar VTS. Traffic information: Sunrise and Victoria will pass ahead of you. Aurora is at a standstill. Please confirm.

Motor Vessel Explorer: Digimar VTS, Explorer. Well received.

Digimar VTS: Explorer, Digimar VTS, Traffic information: Sunrise and Victoria will pass ahead of you. Aurora is at a standstill. Read back.

Motor Vessel Explorer: Digimar VTS, Explorer. Sunrise and Victoria will pass ahead of me. Aurora is at a standstill.

Digimar VTS: Explorer, Digimar VTS. That is correct. Keep your course and speed until Motor Vessel Sunrise has passed Victoria. Tugboat Aurora will escort you to your berth.

Motor Vessel Explorer: Digimar VTS, Explorer. Thank you, Sir. I will keep my course and speed until Motor Vessel Sunrise has passed Victoria. Tugboat Aurora will escort me to my berth.

Motor Vessel VTS: ssel Explorer, Digimar VTS. That is correct. Talk directly to Aurora to arrange meeting.

MV Explorer: Digimar VTS, Explorer, Yes Sir, I will talk to Aurora.

Again, it is important to notice some necessary elements of routine communication.

Here, The VTS officer asks Motor Vessel Explorer to confirm received information by reading back. Motor Vessel Explorer does not confirm information. VTS must ensure information has been received and asks Motor Vessel Explorer to read back. This time, the VTS operator uses the prowords ”read back”. After being asked to read back, Motor Vessel Explorer is reminded that important information must always be confirmed.

The vessels meet safely in the fairway and continue to their further destinations. We must acknowledge that the VTS has the unique possibility to overview the traffic situation in a way that may never be possible for one single vessel. It is therefore important that the VTS operator will act accordingly, and coordinate traffic, for safe navigation. Communication must be clear and instructions must be consistent, for all vessels involved.

We may reflect upon the following key takeaways. The role of the VTS operator is indeed decisive for safe navigation. Therefore:

- The VTS operator must be capable to ensure information is received and understood by asking for confirmation.
- The VTS operator must understand the elements of routine communication and will use them to make exchanges clear and efficient.
- The VTS operator is trained on the important routine communication strategies necessary in each situation.

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