





Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat

Developments CCNR and NL

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Rhine Commissioner

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2017

- First exhibition automated navigation in Rotterdam
- Industry claimed that within 1 year the first autonomous vessel would sail from Rotterdam to Duisburg!

Today 2026:

- Since 2024: testing remote control on the Rhine on specific stretches
- In the Netherlands testing remote control on the national waterways and derogations for small (length < 20m) unmanned vessels

CCNR initiative

- 2022: Activating RN Committee to develop CCNR programme for testing and introducing automated and/or remote controlled navigation

- 2023: 3 recommendations issued to allow deviations of the Rhine Police regulation and the Rhine Vessel Inspection Regulation in order to start testing of remote controlled navigation. Effective at the beginning of 2024

- First tests started in 2024, limited duration of actual remote controlled navigation

- Today for 12 vessels the CCNR has issued a recommendation

Tests to be executed in different phases

- Today testing with full crew on board and always a skipper in the wheelhouse to monitor the remote control and take over control whenever deemed necessary

- Next phase will be testing with reduced crew: not 24/7 a skipper in the wheelhouse

- To go to this next phase the first phase needs to be evaluated along criteria which will be scored at a treshold value for all key performance indicatore (KPI)

- Next further conditions need te be agreed on the required minimum crew on board and in the wheelhouse. Purpose is to have a reduces crew, less than now required by the RSP (Ship Personnel Regulation)

Experience gained by the CCNR RN committee

- Objective is to develop adapted regulations to enable automated and remote controlled navigation
- The first requests for recommendations raised many questions by the delegations at the CCNR
- Many answered were given by firms requesting the recommendations but quite a number required additional information
- Risk Analysis were required, but not easily developped

Remarks

- Automated and Remote Control should be as safe as the normal present safety of manned vessels

- A general opinion is voiced often that the major obstacle of automated and/or remote control is that the existing legislation and regulations do not allow these new technologies. It is quite the opposite: first and foremost the safety of automated or remote controlled navigation should be proven and then legislation will follow.

National Waterways in the Netherlands

- 30 vessels have a derogation to test remote control
- 86 small vessels (drones with a length < 20m) have a derogation to be operated remote controlled without any personnel on board
- The derogations are issued for 1 year only and need to be renewed every year

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