Aware Mate for Inland Navigation

Active Watchkeeping Support Pilot for river, canal and trackpilot-equipped operations

Instrument the watch, not the officer.

Support the watch. Do not surveil the crew.

Executive view

Inland automation changes the job before it removes the human. Trackpilot and route-assist can reduce manual steering load, but they shift the skipper/OOW toward monitoring automation, traffic, bridges, locks and route context. Aware Mate adds a privacy-bounded advisory layer that helps operators preserve active watchkeeping without turning the wheelhouse into surveillance.

Human-factor layer

Local graded prompts plus watchkeeping-state signals. Advisory only; no navigation control.

Inland pilot

1 vessel / 1 wheelhouse. Defined route profile, calibration, active run and close-out.

Trust boundary

Edge-first by default. No identity. No emotion. No ship-to-shore raw video by default.

WHY THIS MATTERS INLAND

The risk is present-but-drifting attention

Routine legs can create low-stimulus monitoring. The critical moment often comes next: a bridge, lock, bend, traffic interaction or wheelhouse-lowering procedure with little recovery margin.

Trackpilot changes the role

Less continuous steering; more monitoring of automation, traffic and environment.

Work-as-done is multi-zone

Outside view, radar/ECDIS, VHF, side consoles and desk/PC can all be legitimate watchkeeping context.

Acknowledgement is not vigilance

A reset proves interaction, not sustained lookout, traffic assessment or readiness to respond.

Device and admin load

Low-stimulus stretches can quietly dilute the navigation watch and delay recovery.

PUBLIC TRACKPILOT REFERENCE

RWS/MARIN study

Track Pilot-Automation: Determining Best Practices for implementation on board inland vessels. Report no. 35007-1-MO-rev.1, 20 Dec 2023.

Study link: RWS publication page

Why it matters: the RWS note says trackpilot use in inland navigation has increased, and that the skipper's role shifts toward monitoring rather than continuously steering.

RWS/MARIN trackpilot study

Active Watchkeeping Support Pilot

A controlled inland pilot to validate operational fit, crew trust and privacy-bounded usefulness.

CURRENT SCOPE

What Aware Mate does

Earlier local support

Local graded prompts when sustained patterns suggest reduced alertness, attention drift, abnormal inactivity or weak engagement.

Privacy-bounded review

Aggregate signals on coverage, exposure, recovery, nuisance burden, occupancy / long-absence context where enabled, and route or time trends.

Humans stay in control

Bridge team and operator procedures interpret signals; the system does not automate navigation, make HR decisions or assess medical fitness.

Complements the inland stack

Route planning + trackpilot / wheelhouse warnings + Aware Mate vigilance support + operational review and learning.

Boundary Aware Mate is not a trackpilot, autopilot, air-draft sensor, bridge-clearance calculator or navigation-control system.

PILOT

Controlled inland pilot path

1	**Scope**	Route profile, wheelhouse survey, privacy boundaries and pilot objectives.
2	**Install**	Camera, edge unit and local alerting; optional dry-contact / BNWAS-adjacent only if agreed.
3	**Brief & calibrate**	Crew-facing trust note, mute / override procedure and short silent calibration.
4	**Operate**	Active local prompts plus minimal anonymised / aggregate reporting.
5	**Close out**	Installation fit, day/night performance, nuisance rate, response behaviour, crew acceptance and usefulness.

Pilot decision: proceed, adapt, expand or stop.

Pilot-readiness evidence (not inland outcome proof)

Prior 72h live bridge run. Read as pilot-readiness evidence, not casualty-reduction proof or inland validation.

98.7%	2.4 s	0.08/h	93%	4.6/5
uptime	P95 latency	false critical	coverage	crew acceptance

Discuss an inland pilot

Candidate vessel | wheelhouse layout | route profile | privacy boundaries | pilot KPIs

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