FSM Maritime Atlas

Scientific and functional dossier | Stand-alone reference version v40.53 | English editorial v2.0

Document status: Built tactical-operational research simulator; public functionality reviewed, without a complete end-to-end interactive test in this review.

1. Research purpose and distinct function

FSM Maritime Atlas is the tactical-operational experimentation environment in the FSM architecture. It allows researchers to formulate synthetic maritime incidents, observe action sequences, reallocate resources and interpret results under explicitly declared scenario assumptions. It is not a navigation service, authorised command system or source of certified predictions.

2. Intended users and benefits

Suitable for researchers, analysts, maritime educators and exercise facilitators studying the relationship between detection, verification, decision timing, force allocation, coordination and restoration. Users primarily seeking factual inventories should start with MN; users seeking ecosystem-level interpretation and teamwork should use SMEA.

3. Scenario and geographic functions

- Black Sea and Baltic operating areas; selectable cartographic presentations, including nautical-chart-oriented modes subject to the configured environment.
- Scenario creation, starting parameters and simulation speed/time controls.
- Incident sequences covering alert, verification, assignment, movement, contact, response, neutralisation or SAR and restoration.
- Hypothetical ship, EOD, helicopter, aviation, civil SAR and maritime traffic representations, with mission reassessment.
- Mid-scenario developments, priority changes, navigation constraints and rerouting.
- Exercise timelines, decision records, reports and analytical result views.

4. The research workflow

The researcher specifies the scenario, conditions and initial evidence, then steps through new information, decision alternatives, available means, movement and simulated consequences. The resulting chronology and report should retain starting assumptions, parameter changes, timings and model limits.

Illustrative scenarios may involve a drifting uncrewed surface vessel, several detected targets, a shipping corridor disruption, a collision risk or a SAR operation. Scenarios must be marked as synthetic unless genuinely documented evidence is incorporated separately.

5. Analytical methodology and outputs

The Atlas provides opportunities to explore MSE, MSCoG, MSC, MSR, MSEL, MCS, MSCF and IMSA through the practical consequences of an exercise. The relevant output is a reasoned comparison of simulated actions, not the display of methodological acronyms alone.

Research outputs include scenario definitions, timelines, decisions, resource allocations, simulated outcomes, documentation of assumptions and exported reports when available in the installation.

6. Stand-alone Atlas versus embedded Atlas Workbench

The independent Maritime Atlas does not have its own multiuser mechanism. FSM-SMEA includes an Atlas Workbench tactical module accessible within a strategic research file. SMEA can support individual or team-based examination of the tactical task and its results. This does not mean that several people have been shown to control a single Atlas simulation concurrently.

The public stand-alone description reviewed relates to v40.53; the Atlas Workbench identified in the SMEA package carries the internal reference v40.30. They should not be presented as identical builds without verification.

7. Limits, testing and responsible interpretation

Maps, time scales, force availability, target behaviour, uncertainty and response outcomes reflect model assumptions. Synthetic tracks and causal narratives are not observations or evidence of institutional decision authority.

A deployment acceptance test should verify the whole sequence, scenario restart, map and language switches, timing, validation locks, exports and contextual invocation from SMEA. The present dossier is a documentary description, not an external performance certificate.

8. Relations with MN, SMEA and MEDT

MN provides documented context for assumptions; Atlas provides tactical experimentation; SMEA applies strategic synthesis and can organise joint interpretation; MEDT models longer-term propagation through ecosystem functions in an experimental, currently separate environment.

Sources: FSM Maritime Atlas public v40.53 documentation; FSM research vision; SMEA v10.72 and cross-reviewed dossiers.