



Safety and efficiency in the Maritime Industry

Best Practice & Learning from Aviation

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Research Focus & Goals

APRG



The **human** and **organisational** factors which underlie safety, efficiency, reliability, and change in complex safety/quality/efficiency-critical industries

- aviation, surface transport, healthcare, manufacturing, process, emergency services, security

Improve safety and efficiency by developing tools and methodologies to:

- Understand dynamics of human performance & organisational systems
- Promote better practice in managing safety & reliability
- Bridge the gap between operations and design
- Evaluate the impact of human, technological and organisational interventions upon operational performance
- Ensure competence for operational reality

Recent Projects

APRG



ALICIA (All Conditions Operation and Innovative Cockpit Infrastructure)



ManuVAR (Manual Work Support Throughout System Lifecycle by Exploiting Virtual and Augmented Reality)



COPE (Common Operational Picture Exploitation)



HILAS (Human Integration into the Lifecycle of Aviation Systems)



VIRTHUALIS (Virtual Reality and Human Factors Applications for Improving Safety)



TATEM (Technologies And Techniques for nEw Maintenance concepts)



MASCA
(Managing System Change in Aviation)

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TASS
(Total Airport Security System)



- Transferring innovation and expertise from aviation human factors and safety (incl. training)

Bottom-up proposals, in areas such as “human factors...safety...etc” with “special attention to technology transfer from aeronautics”

Technology transfer in the area of Transport TPT.2013-1

Competence and skills identification and development for efficient and safe operations considering “processes” and “knowledge building”

Towards a efficient port transport system SST.2013.6-2.

- Producing operationally-valid analyses and solutions

Focus on “methods, tools & procedures to facilitate the safe design & operation of ships” and “enhance safety”

Ships in operation SST.2013.4-1

How to “involve key stakeholders” and develop “methodologies to identify vulnerabilities and risks for safety” and “corrective actions”

Inspection capabilities for enhanced ship safety SST.2013.4-2