

## SMS Best Practice Submission

ANSP	NAV Portugal	Date of submission	2023-09-18
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SoE Study Area	4 - SMS Documentation, 6 – Safety Risk Management, 11 – Management of Change		
Best Practice Title	MARIA – Model of ATM Reality In Action		
In use since	2018		
ANSPs using this practice	NAV Portugal Limited use in BULATSA and HUNGAROCNTRONL		
<p>NAV Portugal developed the Model of ATM Reality In Action (MARIA) to enable compliance with the European regulation in what concerns the safety assessment of changes to the functional system.</p> <p>It is a knowledge database and a framework providing a sound base for safety analysis by describing the whole ATM system and the interdependencies between its functions. NAV Portugal systematically uses the model to support several processes, namely: change management, safety assessments, interoperability compliance and documentation.</p> <p>MARIA was captured via interviews and observations and describes: the day to day operations, what is needed by each function (inputs), who/what can perform it (responsibilities), applicable regulatory requirements (ICAO, EC, ...) and what outputs are produced. It clearly shows the interfaces and interactions between functions.</p> <p>MARIA covers the interaction between different domains and brings a clearer picture of the ATM system as a whole. This significantly reduces the risk associated with change implementation.</p> <p>When analysing a change, the usage of an explicit model has several advantages including:</p> <ul style="list-style-type: none"> <li>• It avoids using implicit models by the participants, which results frequently in misunderstandings and gaps in the analysis of interdependencies,</li> <li>• Supports early analysis of the impact and identification of the change stakeholders, both internal and external.</li> <li>• Makes the assessments systematic as it provides clear guidance on what should be analysed. Ensures completeness and reproducibility of results.</li> <li>• The effort required for the assessment of changes is less and the documentation is clear, with graphical that support which improved communication with the NSA.</li> </ul> <p>MARIA is a starting point and is complemented / improved by identifying or clarifying the already existing data.</p> <p>The definition of safety requirements can be systematic and checklists may be used. For example, any change affecting human resources will require training; any change to a technical function will require correct requirements, verification and validation. In complex projects, these high-level safety requirements were sufficient to trigger thoughts and identify underlying safety issues.</p> <p>Training for the usage of the model has already involved internal operational and technical staff, the NSA and participants from other ANSPs and Eurocontrol. For the next training session for NAV Portugal 30 people comprising line management, ATCO and Technicians, are registered.</p> <p>Latest developments:</p> <p>For the assessment of the implementation of UTM services and extension of the MARIA model was developed. This extension supports the identification of the regulatory and interface requirements each service provider / stakeholder has to address.</p> <p>A MARIA workshop is taking place on the 28<sup>th</sup> and 29<sup>th</sup> September in Brussels. There is a significant number of newcomers registered. Interest about has not decreased MARIA.</p>			

Are you willing for the proposed Best Practice to be shared with other ANSPs?

Y

This document should be sent together with the SoE in SMS questionnaire,  
to: [soe\\_2018@eurocontrol.int](mailto:soe_2018@eurocontrol.int)