

**MA-TAWS-100**

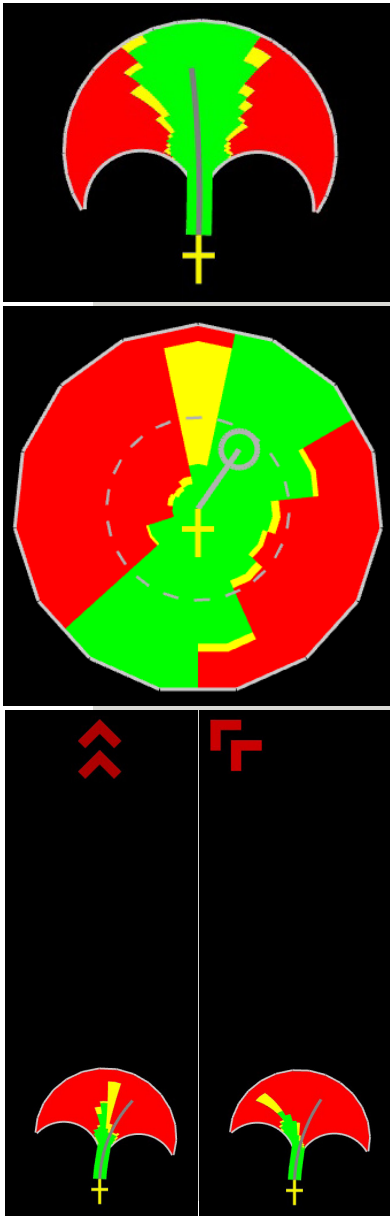
## Mission Adaptive - TAWS

MA-TAWS-100 is one of Saab's next generation products providing airborne platforms with a performance based Terrain Awareness and Warning System (TAWS). MA-TAWS is designed to provide nuisance free Controlled Flight Into Terrain (CFIT) protection for missions in challenging terrain when mission requirements call for low-level altitude flights.



**SAAB**

## This is MA-TAWS-100



The MA-TAWS provides functionality aimed at reducing the risk for CFIT accidents. The core function is to alert the flight crew of potential collision threats and provide information that advises on how to avoid hazardous situations. It provides alerts when an active action is required by the pilot to avoid collision using the maximum climb performance available.

High pilot workload, e.g. redundant nuisance alerts or unclear information and advisory, is one of the primary causes for CFIT accidents. Hence, the scope is to significantly reduce the nuisance alerts whilst assuring that ground or obstacle alerts are still issued to the pilot or crew when relevant.

The system has an adaptable system design enabling effortless integration in multiple platform environments. It allows high resolution terrain- and obstacle elevation data to be sourced from numerous different databases. The performance model is easily adapted to different helicopter and aircraft types, enabling swift integration. The software is fully portable which makes it possible to use it in both simulators and in the target platform. The system design is Future Airborne Capability Environment (FACE) compliant and deployable on ARINC 653 RTOS.

MA-TAWS's performance (level of nuisance warnings and quality of visual information presentation) is significantly influenced by the integrity and resolution of terrain data. For optimum performance, a data source providing high-resolution, high-integrity terrain data should be used. A minimum of 3 arcsec resolution is recommended for the onshore and offshore capabilities. A minimum of 1 arcsec resolution is recommended for the low-level flight in mountainous areas.

Saab can provide a terrain elevation database with less than 1 arcsec resolution for best performance.

## Key Features

- Increase the probability of effective mission completion
- Advanced alert logic providing a high-level of CFIT protection while minimizing nuisance warning
- Terrain warning system based on actual aircraft performance, mission type and pilot performance
- Escape paths advisory based on possible 3D maneuvers
- Developed for both Fixed wing- and rotary wing aircrafts
- State-of-the-art algorithm design minimizing computer resource requirements
- Patent-protected