Product brief: PRISMA-SNET
Safety nets for air traffic controllers

PRISMA-SNET is an essential module of the PRISMA ATM automation suite. As a prewarning and alerting tool it helps air traffic controllers to identify potentially dangerous situations in time to take preventive action. Using flight plan data from the flight data processing system (FDPS) and current position data from the surveillance data processing system (SDPS), PRISMA-SNET gives air traffic controllers timely forewarnings and alerts them to potential safety issues.

PRISMA-SNET provides a common framework that supports functions such as short-term conflict alerting (STCA), minimum safe altitude warning (MSAW), area proximity warning (APW), cleared level adherence monitoring (CLAM) and route adherence monitor (RAM), depending on FDPS input.

Key features

Trajectory prediction

forecasts future position of aircraft based on current position and performance indicators.

Multiple models for conflict probing

increasing the forecast time interval automatically raises the required safety margins.

Conflict detection

short-term detection of potential conflicts based on thresholds and alert triggers defined by the customer, including estimates of conflict probability and time-to-conflict.

Confirmation of potential conflicts

helps the controller in the case of uncertainty around a potential critical situation, providing the option to reduce the number of alert notifications per incident to a minimum of one.

External alert triggering

enables the HMI to notify the user via audio and/or visual alerts.

Route and cleared level adherence

highlights deviations between planned and actual course and altitude.

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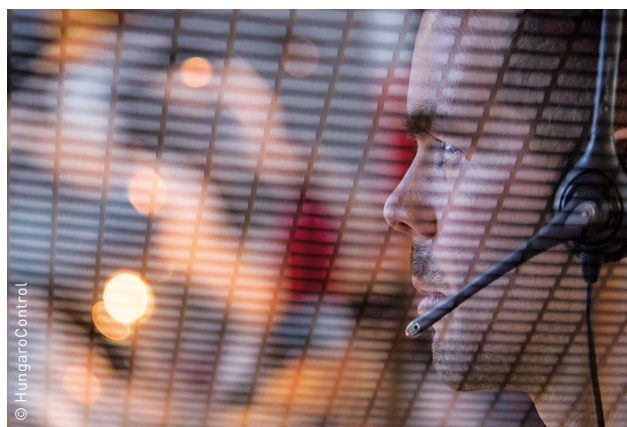
PRISMA-SNET at a glance

- Delivers timely forewarning of potential risks to aircraft

- Helps ensure safe take-offs, transit and landings

- Detects deviations from planned course and altitude, depending on flight data processing system

- Provides clear alerts in the event of imminent safety issues

- UTM field-proven in several projects

Air Traffic Management

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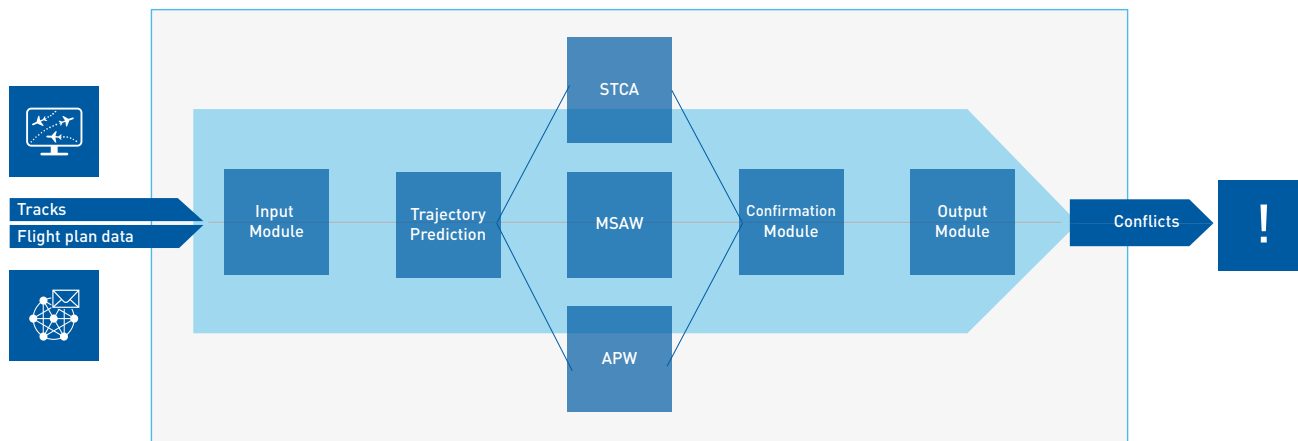
PRISMA-SNET architecture

Benefits

As a modular component of the full surveillance chain, PRISMA-SNET also integrates easily with existing and future third-party solutions. The tool provides an additional layer of safety by highlighting both deviations from plans as well as potential short- and medium-term conflicts between aircraft.

With the ability to handle standard ASTERIX Cat004 output, PRISMA-SNET offers plug-and-play compatibility with other technologies. Immediate alerts to safety-critical events help ensure that air traffic controllers can take preventive measures in a timely fashion.

PRISMA-SNET can consume and pass-through ASTERIX Cat004 data received from other alerting tools (e.g. A-SMGCS systems), allowing ATC organisations to have a centralised data-feed towards their front-end applications.

Facts and figures

Selected references	AirNav (Indonesia), GCAA (Abu Dhabi), Slovenia Control (Slovenia)
Use cases	Increased situational awareness, enhanced safety
Scalability	Start with e.g. STCA and MSAW, add APW or CLAM when needed
Connectivity	Consumes and forwards Cat004 alarms generated by other alerting tools
Related products	PRISMA-ASD, PRISMA-CWP, PRISMA-FDPS