Safe Cooperating Cyber-Physical Systems using Wireless Communication | SafeCOP

OBJECTIVE AND TARGET

SafeCOP project addresses safety-related issues in cooperating cyber-physical systems, characterised by wireless communications, multiple stakeholders, and variable operating environments. These are called CO-CPSs.

MARITIME APPLICATION – COOPERATIVE BATHYMETRY

SafeCOP project demonstrated that **Unmanned Surface Vehicles (USV)** – a type of CO-CPS – **can acquire bathymetry data more efficiently than today's operations relying on manned vessels only**, because they reduce the staff needed and increase the coverage of a single maritime survey vessel, as well as reduce the risk of mapping in unknown and shallow water.

Within the project:
Control algorithms have been used to make a slave USV follow the coverage of a master vessel without pior knowledge of the depth of the area

SafeCOP project demonstrates how situational awareness is key for safe navigation in dynamic maritime environments.
Situational awareness includes:

- Interfaces to share potential obstacles spotted by Unmanned Aerial Vehicles on air-
- Strategies employed to avoid collisions in the sea while maximising uptime of the survey.

http://www.safecop.eu/

ECSEL Joint Undertaking