TALOS Project
Transportable Autonomous patrol for Land border
Surveillance system

The main objective of the TALOS project is to develop and field test the innovative concept of a mobile, modular, scalable, autonomous and adaptive system for protecting European borders. The conventional border protection systems are based mainly on expensive ground facilities installed along the entire length of the border used only to observe, detect and warn. This infrastructure is complemented by human patrols, where there is an access to the border line. The system developed within the TALOS project will be more versatile, efficient, flexible and cost effective. The complete system applies both aerial and ground unmanned vehicles, supervised by command and control centre, but in the TALOS project the emphasis will be put on application of UGV, communication and ability to command and control.

The main research subjects will be the system architecture, scenarios of operation (including cooperation with UAVs), UGV control and navigation, Command and Control Centre and the communication networks. The TALOS system will be mobile and transportable, deployed quickly in locations, where the illegal intrusion takes place. It marks a “soft border line” on the ground, although the concept and elements of the system may be implemented to the air, river and sea borders or at any other areas where fast surveillance is needed.

TTI’s ROLE

TTI will contribute in the system communication tasks of the project and applying its large experience in design and development using different technologies and for different applications. Research and demonstrate a highly modular approach to antenna design which provides either omni-directional or steerable high gain beams across either 90° sectors or around a full 360° in order to connect to the TalosNet. TTI will specify the control processing that is required in WiMAX to control the antennas, enabling very fast reconfiguration of the antenna direction.

DURATION

48 months
Date of Start: July 2008

PARTNERS

PIAP (Poland, Leader), Aselsan (Turkey), Hellenic Aerospace Industry S.A. (Greece), STM (Turkey), European Business Innovation & Research Center S.A (Romania), Smartdust Solutions (Estonia), TTI, TP (Poland), VTT (Finland), IAI (Israel), ITTI (Poland), Onera (France), Universidad de Warsaw (Poland)

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