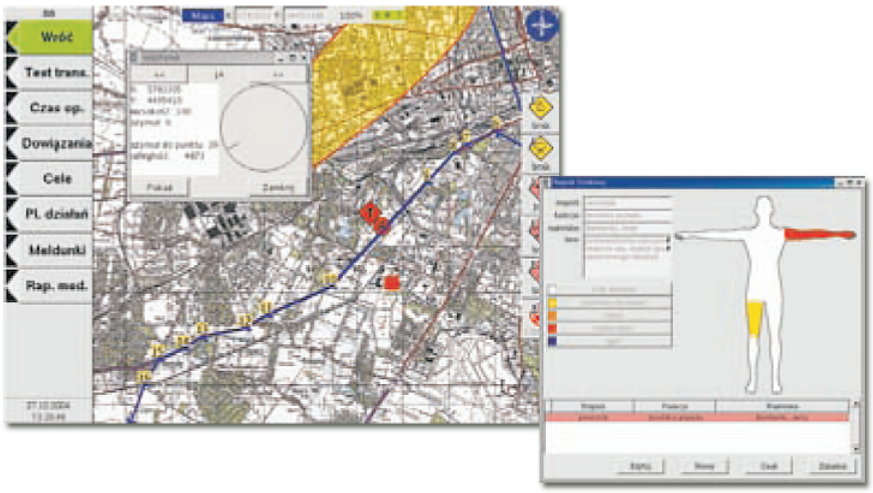
TROP - The Battlefield Management System



BMS **TROP** was developed to assist and support tactical unit leader in command task planning and execution. BMS **TROP** integrates elements of communication system for exchange of orders and messages among command structures and subordinate vehicle commanders and their crews.

BMS **TROP** facilitates updating of constant, clear picture of tactical situation including an understanding of relevant terrain and of the relationship between friendly and enemy forces in time and space, giving ability to correlate battlefield events as they develop.

BMS **TROP** includes algorithms designated for automation and faster execution of tasks at respective levels of command. Availability of suitably selected and complete information allows commander and subordinate teams to maintain situational awareness and ability to take proper operational decisions.

System should be used in mechanized infantry and tank formations on all levels of command from individual vehicle, convoy, patrol, group, platoon up to the company team commander level.

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TROP functionality

- **Mission preparation with the use of the on-board battlefield computer** for example Mission Statement, Warning Order, Operation Order and Fragmentary Orders issuing, Manoeuvre Plans, Itinerary and Positions. Colour, high-brightness display with tactical situation displayed over the map layer representing position and bearing of own vehicle, friend and foe locations, directions of expected threats.
- **Command** directing to selected vehicle of individual voice and automated digital orders (FRAGO) from command post specifying targets, hazards, speed, bear and distance.
- **Control -** surveillance of current vehicle's position and telemetry of its technical parameters and environmental hazard sensors.
- **Alerting -** one button operated manual or by straightforward software menus, and automatically released on preprogrammed triggers like improper position report from navigation system, lack of reply on request and alike.
- **Communication -** exchange of voice and data information between vehicles and command post with the use of on-board communication equipment with automatic selection of most suitable, available communication path.
- **Vehicle's navigation on the move -** support of vehicle commander and driver decision taking.
- **Automatic exchange of data -** vehicle position (last confirmed position with time), Medevac reports, alerts.

System components software and communication equipment

vehicle commander post - computer display of tactical situation integrated with **FONET** intercom unit (vehicle commander station) with channel selector

vehicle driver - FONET intercom unit with basic command and messages display

company team command - post computer display of tactical situation integrated with **FONET** intercom unit (vehicle commander station) with channel selector

crewmember post - FONET vehicle intercom unit

System architecture software

TROP software has modular structure composed by number of tactical overlays, logically grouped, displayed independently atop of digital map

Due to system flexibility the following essential information are available

- positions and moves of vehicles on platoon level
- friends and foe vehicles positions
- surveillance tasks on platoon level
- available support from artillery and logistic
- received and issued operation commands
- plans of manoeuvres and way points
- own vehicle geographic coordinates
- position of own platoons and squadrons automatic position updating in given time intervals or on approaching certain way points
- detected enemy positions
- terrain obstacles information
- detected contaminated or hazardous areas