



Key Features...

- High mobility, rapid deployment and redeployment time
- Plot/track data receipt from PSR / SSR
- Plot/track data receipt from Air Defense multi-radar network
- Display of weapon locations positioned by GPS
- Fire units tasking
- Round-the-clock air situation evaluation
- Missions co-ordination with the Air Force
- Combat simulation and operator training



Product Overview

System configuration

TATRAPAN AD is a mobile AD system designed for command and control of SAM units in real time. It consists of a hardware set mounted into armored container located on a chassis of TATRA 815 6x6 vehicle and equipped with:

- Communication equipment for
 - Data/Voice communication with higher command level
 - Data/Voice communication with subordinated firing units
 - Data/Voice communication with local radar network
 - Air/Ground voice communication
- Air conditioning
- NBC protection
- Power generator
- Shelter resistant to antipersonnel gun penetration

TATRAPAN AD was designed as a joint project of several companies. The following description refers to TATRAPAN AD capabilities provided by ALES.

Workplaces and Modules

TATRAPAN AD is fitted with:

- Commander workstation
- Chief of Staff workstation (commander back-up workstation)
- Air Force liaison officer workstation
- Multiradar data processing equipment
- Supervisor workplace with communication and other equipment
- Data/voice recording device.



Product Overview

System capabilities

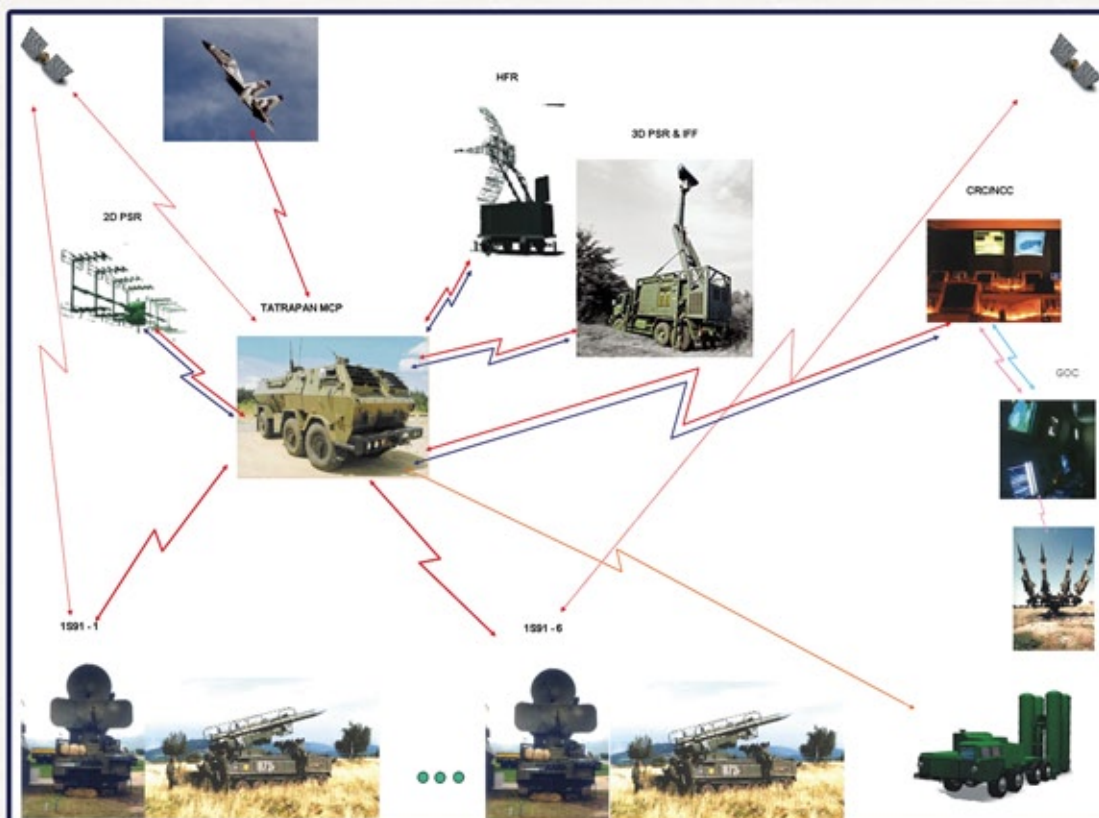
- Plot/track data receipt from PSR / SSR and Air Defense multi-radar network
- Secondary and tertiary (multiradar) processing of radar data
- Recognized air picture display at commander/chief of staff workstations
- Display of weapon locations positioned by GPS
- Weapon status data processing - system database reconfiguration
- Round-the-clock air situation evaluation - for timely employment of most suited weapon system support to commander decision-making process
- Fire units tasking
- Mission co-ordination with the Air Force
- Mission planning support
- Monitoring/archiving of equipment operational status, weapon systems, and data communication
- Monitoring and record/archiving of operator activities
- Combat simulation and operator training

Input information processing

- Radar data received from local radars equipped with data extractors
- Data of AD multiradar network
- Orders from higher command level
- Weapon status/location messages
- Reports coming from coordinated centers

Basic tactical parameters

- Weapon systems controlled in real time up to 6
- Reaction time within 2 sec
- Local radars up to 8
- Radio data communication coverage up to 20 km, line-of-sight
- Weapons database user defined





Product Overview

Operation modes

- Real combat activities
- Combat simulation
- Combat analysis / replay

Innovation purpose

TATRAPAN AD was designed to replace the original K1 system for SAM control of SA-6 series. K1 system was fitted with a large set of equipment located on several vehicles. Commander decisions and/or orders (of his responsibility) issued were based on analogue radar data display. The system failed to provide options for threat countering, other equipment (KPC) provided partial calculations for correct target assignment and information transfer to SA-6 missiles. Both K1 and KPC systems capabilities (complemented by decision-making process capability and others) were provided entirely by TATRAPAN AD. Radars netted to K1 system were equipped with data extractors, and wire/wireless communication equipment for radar data exchange or voice communication. All information on targets (after multiradar processing) is distributed to workstations for decision-making process.

Along with the replacement of K1 system, a control and communication subsystem upgrade of 1S91 missile guidance system was required.

The upgraded 1S91 equipment consists of:

- Radio modem
- Control computer
- Electronic selsyns
- Control panel interface module (CPIM)
- Target display module
- Radar signals emulator (optional)

1S91 upgrade allows for:

- Information receipt on assigned targets
- Homing guidance mode - without PSR radiation
- Graphical data display on 9" plasma panel
- Status messages transfer using CPIM into TATRAPAN AD
- GPS data processing and distribution to TATRAPAN AD



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