MOBILE OBJECT MONITORING SYSTEM «CUPOL»

Mobile object monitoring system (MOMS) «Cupol» allows to observe the mobile object movement in real-time mode.

Assignment of MOMS «Cupol» is the ensuring of efficient operative control of quick reaction groups (QRG), technological transports. MOMS «Cupol» performs a coordinate definition and movement parameters of observed objects with help of GPS satellite system, transmits data to centralized supervision console (CSC) and representing in graphical form on CSC controller monitor. While guarding, location representing and QRG movement parameters on the country map allows to ensure the correct controller decision to minimize the time of QRG arrival to guarded objects.

The system is operated in composition of WDTS «Cupol» and utilizes the software, reception and transmission equipment of the given WDTS and/or separately with using GSM channel (GPRS) for transmitting to CSC. The effective operating radius of the mobile object monitoring system over the radio channel is specified by WDTS «Cupol» installation territory, and while using GSM (GPRS) channel – by mobile operator covering zone. While using GSM (GPRS) channel, it is necessary the internet access to CSC with a static IP address based on ADSL, ISDN, Ethernet technologies etc.

MOMS «Cupol» is a hardware-software complex containing:

- equipment mounted on mobile objects;
- CSC equipment;
- software «Cupol-16SW»;
- retranslating equipment («Cupol-4MP»).

Centralized supervision console equipment (CSC):

- digital receiver «Cupol-DR»;
- back-up power supply «Cupol-BPS»;
- antenna-feeder equipment;
- IBM compatible computer with the internet access (while using modems «Cupol-GSM»);
- computer back-up power supply equipment;
- software «Cupol-16SW».

The equipment mounted on mobile objects with coordinate transmitting over the radio channel:

- GPS module («Cupol-GPS»);
- radio transmitting module («Cupol-16»).

The equipment mounted on mobile objects with coordinate transmitting over GSM (GPRS) channel:

- GPS module («Cupol GPS»);
- transmitting module («Cupol GSM»).

GPS and GSM modules are designed in a compact plastic case, contain internal antennas and mounted on a automobile rear glass shelf. The radio transmitting module can be mounted in any convenience place of an automobile. The control panel «Cupol-16» can be used as a radio transmitting module.
The coordinate definition accuracy depends mainly on a signal reception conditions from GPS satellites, surrounding buildings density and height and usually equal to 100 meters and better.
MOMS «Cupol» operating is flexible set depending on a character of customer tasks and demands.

The system software allows:

- observing the mobile object movement on the country map in real-time mode,
- checking the mobile object route,
- recording and playing routes and object movement parameters,
- forming different report documents.

«CUPOL GPS» TECHNICAL SPECIFICATION

Communication interface	RS-485
Interface connector type	TP6P4C (RJ12)
Compatibility with control panels	«Cupol-GSM», «Cupol-16»
Coordinate definition accuracy, m, or better	100
Operation time start (transmitting coordinates to CSC) after power-on state, s, or less	20
Programmed period of coordinate transmitting to CSC: - over the time, min - over the distance, m	 1…255 50…255
Feeding from RS-485 interface, V	5…15
Current consumption, mA, or less	80
Control panel dimension, mm, or less	90x50x24
Weight, kg, or less	0,15