

SUPERCAM



UNMANNED
SYSTEMS GROUP

INTRODUCTION

The logo for UNMANNED SYSTEMS GROUP features a stylized 'U' composed of several overlapping squares in shades of gray and brown on the left. To the right, the word 'UNMANNED' is written in a large, bold, orange sans-serif font, and 'SYSTEMS GROUP' is written below it in a smaller, bold, dark gray sans-serif font.

UNMANNED SYSTEMS GROUP

ENGINEERING



Design of
unmanned aerial
vehicles (UAVs)
of various
types and
categories

PRODUCTION



Production of
UAVs, ISR
systems,
autopilots and
software

SALES



Worldwide sales
for both civil
and military
purposes

SERVICES



Unmanned
surveillance
services for
leading
companies in
different
fields



Company's headquarters
are located in Izhevsk
- the heart of Russian
UAV technologies



253 employees; 40
engineers



2017 - 560 000+ km
2018 - 700 000+ km



2018 - 376 UAVs
produced



2017 - 95 government
contracts
2018 - 121 government
contracts

Est. 2010

SUPERCAM

Is the biggest
private group of
companies dealing
with design,
development and
research of UAVs
in Russia

OUR LARGEST CLIENTS



Russian Railways



ROSATOM



Rosneft



FEDERAL SECURITY
GUARD SERVICE



MINISTRY OF
INTERNAL
AFFAIRS

EQUIPMENT DESCRIPTION

UNMANNED AERIAL VEHICLES



Flight time up to 110 min
UAV wingspan 3,2 m
Flight distance Not less than 140 km
Radiolink up to 40 km
Videolink up to 25 km
VTOL

SUPERCAM SX350



Flight time up to 3 h
UAV wingspan 2.5 m
Flight distance Not less than 180 km
Radiolink Up to 50-70 km
Videolink Up to 50 km

SUPERCAM S250

Flight time up to 4,5 h
Flight speed up to 120 km/h
UAV wingspan 3,2 m
Flight distance Not less than 240 km
Radiolink Up to 90 km
Videolink Up to 50 km

SUPERCAM S350



Flight time up to 5 h
UAV wingspan 4,5 m
Flight distance Not less than 300 km
Radiolink 110 km
Videolink 80 km
Deployment time 15 min

SUPERCAM S450



Power electricity



Detouchable Parachute



Recovery Parachute



Composite structure



Man portable

STANDART COMPLEX INCLUDES:

- Supercam UAV in a transportation case
- Ground control station in a shockproof, dustproof and waterproof case
- Elastic/pneumatic catapult
- Charger and 2 sets of batteries
- Payload (HD, PAL, IR camera,Foto camera, Gaz-Analyzer)
- Ground antenna on a tripod



GROUND CONTROL STATION AND UAV OPERATION

The ground control station (GCS) with present software is used for UAV operation.

The complex may include any number of compact GCSs.

The compact GCS might be used as:

- a main CGS to control all the systems
- A receiver for video and telemetry



GYRO-STABILIZED PAYLOAD



HD video camera 10x
optical zoom



PAL video camera
10x/28x optical zoom



Thermal imaging
camera 640 x 480



Combination in a
single payload block



Gas-analyzer



Look-up angle: Pitch $+30^{\circ}$... -90° ,
Roll -60° .. $+60^{\circ}$,
Yaw 360°

Drive type: Direct drive, brushless motors
Payload orientation: View of entire lower
semi-sphere

SPECIAL FEATURES

- Automatic wings unhitching system (in case of hard landing the wings are automatically detached from the center in order to mitigate the risk of damage of the UAV elements)
- Parachute landing with automatic cords unhitching system
- ADS-B Transponder
- 64 bit encrypted radio channel (optionally, the UAV might be equipped by FHSS (frequency-hopping spread spectrum) radio link)
- Video is encrypted and can be decoded only with special software
- The UAV returns automatically in case of loss of communication with GCS
- Payloads are interchangeable between different models of UAVs
- Vertical take-off and landing (VTOL)



NETWORK STRUCTURE



Moving ground control station



Ground control station



EO/IR Camera with
360° pan and 90 tilt
control

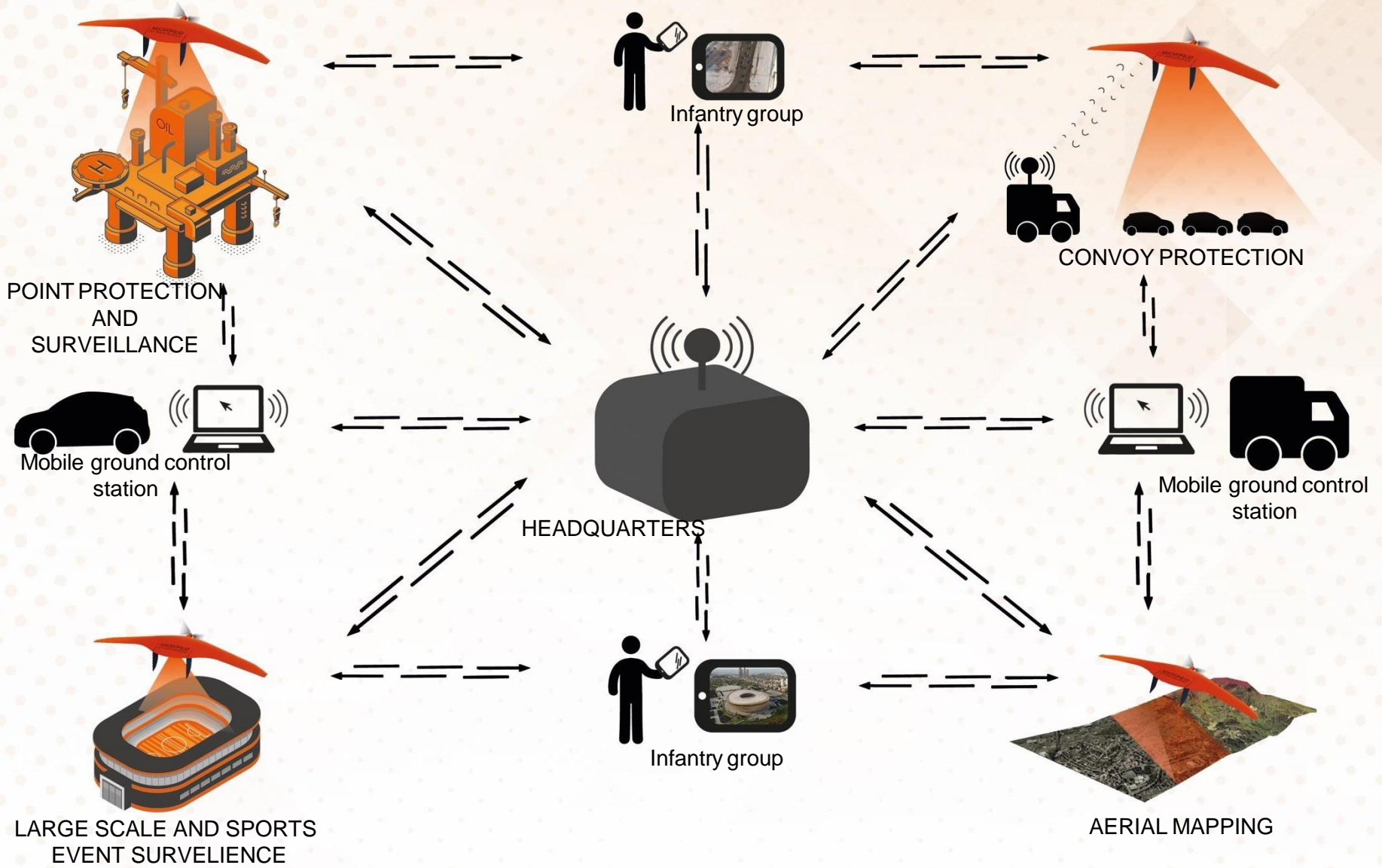


Target tracking
system



Online video
Onboard recording

SITUATION CENTRE



FINKO LLC

 **UNMANNED**
SYSTEMS GROUP