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USG-211

camera system

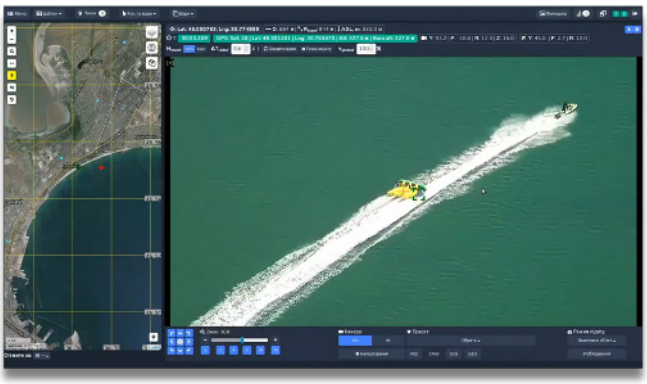
ISTAR USG-series payloads were designed by our company for UAVs, small manned aircraft, helicopters, autogyros, and aerostats. It's a perfect for long-range surveillance, search and rescue, and security applications.

- Full HD EO with 30x optical zoom
- Scene lock
- Target tracking
- Digital video stabilization
- Anti-fog feature
- On-board recording and storage

UAS COMPONENTS

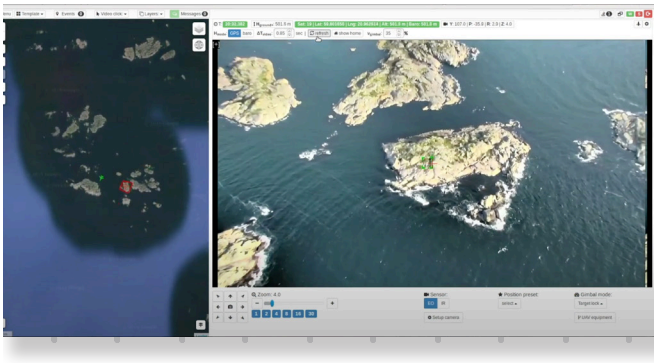
Application
cases

The synergy between the hardware and the software allows to execute various tasks depending upon mission.



Search and rescue

Our equipment is able to make search and analysis in hard-to-reach areas of the Earth, to create reports while searching, and to operate in accordance with included protocols.

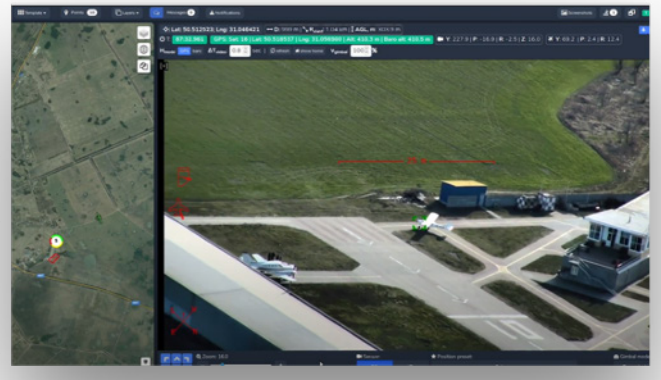


Anti-poaching

The flexibility of our technical solution gives us an opportunity to adapt the functionality of our software to collect information in different fields. Whether it's counting polar bears in the Arctic or locating ivory poachers.

Wildfire prevention

Monitor open space areas and measure the temperature changes in the selected preset area in automatic mode, locate the fire, determine the scale, position, and transmit all information to the Response Service.



Surveillance and observation

The flexibility of our technical solution gives us an opportunity to adapt the functionality of our software to collect information in different fields. Whether it's counting polar bears in the Arctic or locating ivory poachers.

Application

cases

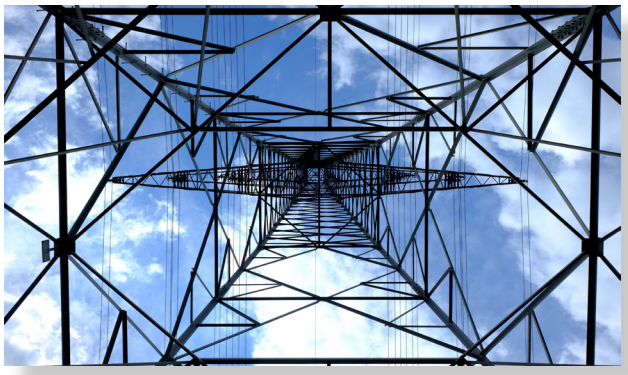
We offer a wide range of EO/IR gyro-stabilized gimbals for fixed-wing and multi-rotor platforms. Possible application cases are innumerable and can be limited only with the platform restrictions our solution will be installed on. However, our camera systems comply with the highest quality standards and our team has huge expertise with camera systems integration on the various platforms.

Military

Wildlife monitoring

Border control

Pipeline inspection



Powerlines inspection

Police assistance

UAS COMPONENTS

System

features and technologies

During the years of constant improvement our team received comprehensive feedback from the end-users. Based on our experience and expertise we've made a conclusion that first and foremost human factor should be eliminated to decrease critical issues and failures. We want you to have one of the most reliable drones on the market.

Objects on the map
Capture points of interest with just one click on the video. Click and the system saves the object and immediately add it on the map, with a photo attached.

Live map
Observe the current location of the drone and the area where your gimbal is pointed. Moving map helps a lot to know the current mission information and plan the next steps.

Augmented reality
See names of the streets, objects, and other useful information right above the video in real-time, so you won't miss anything.

Reporting tools
Quickly generate standard PDF reports, save all objects on the live map, include general information of the flight.

Digital video stabilization
Stabilizes the image for clear and smooth video both online and raw onboard recordings.

Target tracking
Simply click on the object and the camera system will immediately start tracking it: whether it's a human, vehicle, or any other object. Nothing can escape your eye.

30x optical and 4x digital zoom
Observe your point of interest in the smallest details no matter what the distance is.

Capable of operating in harsh weather conditions
From -10C to +40C, despite the rain, fog, wind, or mist.

Picture-in-picture
Check video streams simultaneously.

Onboard video recording
The whole mission may be recorded from both sensors for better analytics or post-mission check.

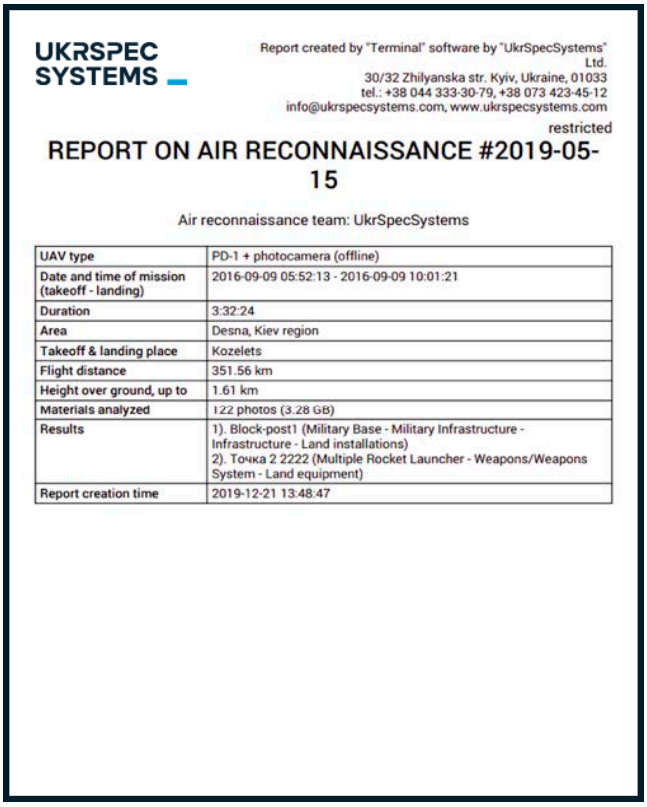
UAS COMPONENTS

Aerowatcher

software

Reporting module allows you to quickly generate a standardized report of your aerial surveillance. It will contain general information about your flights, such as time and date, duration, total distance traveled, number of detected objects, and flight route.

Right after that, you will find every object that was detected during the current session. Object description includes general information, coordinates, photo, and location on the map. The report can be exported as a PDF file and can be easily forwarded to a client and passed by to a decision-maker.



UKRSPEC SYSTEMS

Report created by "Terminal" software by "UkrSpecSystems" Ltd.
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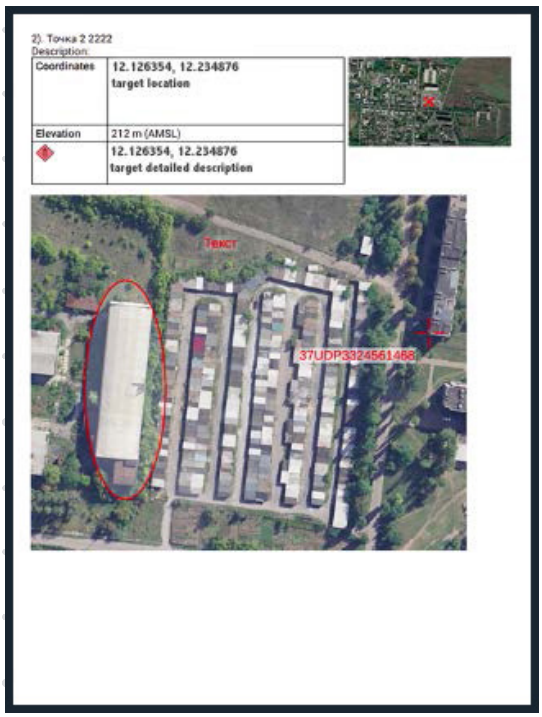
restricted

REPORT ON AIR RECONNAISSANCE #2019-05-15

Air reconnaissance team: UkrSpecSystems

UAV type	PD-1 + photocamera (offline)
Date and time of mission (takeoff - landing)	2016-09-09 05:52:13 - 2016-09-09 10:01:21
Duration	3:32:24
Area	Desna, Kiev region
Takeoff & landing place	Kozelets
Flight distance	351.56 km
Height over ground, up to	1.61 km
Materials analyzed	122 photos (3.28 GB)
Results	1). Block-post1 (Military Base - Military Infrastructure - Infrastructure - Land installations) 2). Точка 2 2222 (Multiple Rocket Launcher - Weapons/Weapons System - Land equipment)
Report creation time	2019-12-21 13:48:47



2). Точка 2 2222
Description:

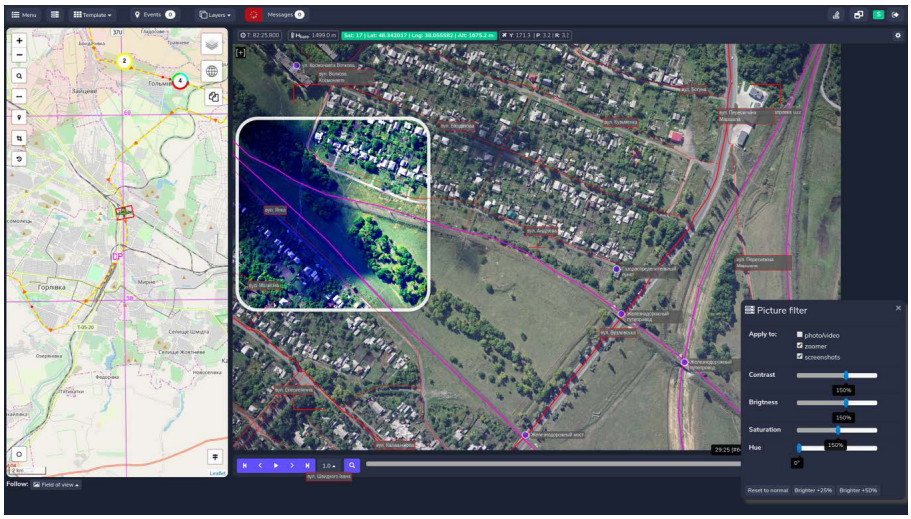
Coordinates	12.126354, 12.234876 target location
Elevation	212 m (AMSL)
	12.126354, 12.234876 target detailed description

Mission replay mode

Sometimes you miss important things when you are in a rush or there is simply not enough time to carefully study the video during the flight. This is why we introduce the post-processing mode.

Upload video or photos from the drone, together with the log file to the software and you will enter replay mode that will simulate the flight.

You can see the same video already synchronized with the flight route, and know exactly where it was recorded. Use a set of tools, like video enhancement, zoom, annotations to take a maximum of your visual materials and collect as much information as possible.



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Technical
details

Gimbal specs:

Width	115 mm
Height	164 mm
Weight	1.4 kg
Optical zoom	30x
Digital zoom	4x
Yaw	360°
Pitch	-30-110°
EO resolution	1920 x 1080
EO framerate	60 fps
Electric consumption	10...36V, 2.5 A
EO FOV	63.7° (wide) to 2.3° (tele)
Working temperature	-10°C to +40°C
EO video out	HD-SDI (BNC 75 Ohm)
Commands	Pelco-D, MAVLink

DRI. Vehicle

Detection	9000 m
Recognition	2200 m
Identification	1100 m

DRI. Human

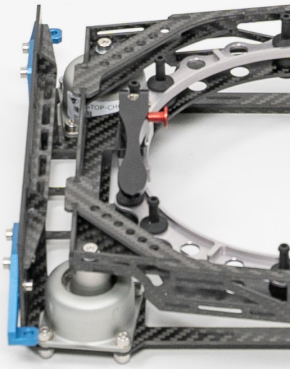
Detection	3500 m
Recognition	1700 m
Identification	900 m

VPB specs:

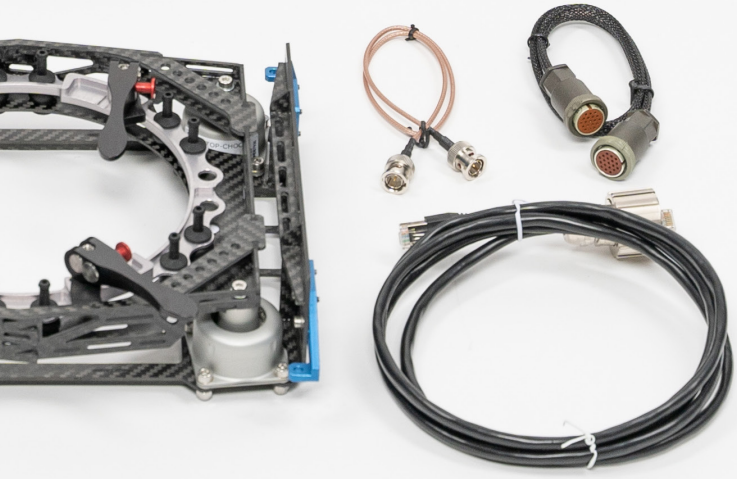
Width	120 mm
Height	82 mm
Length	149 mm
Weight	0.75 kg

Anti-vibration mount specs:

Width	270 mm
Height	70 mm
Length	249 mm
Weight	0.65 kg



System
includes



The USG camera systems come as plug-and-play turnkey solution. To begin with cablework and to end with controllers - simply connect it with your aircraft and execute the mission.

What you get :

- USG-211 gimbal
- Video processing block
- Anti-vibration mount
- Rugged laptop/tablet pc with preinstalled software
- Controllers
- Connection kit
- Rugged transportation kit

Want to know more?