STRIKE DRONE

INTERNATIONAL ARMOUR™

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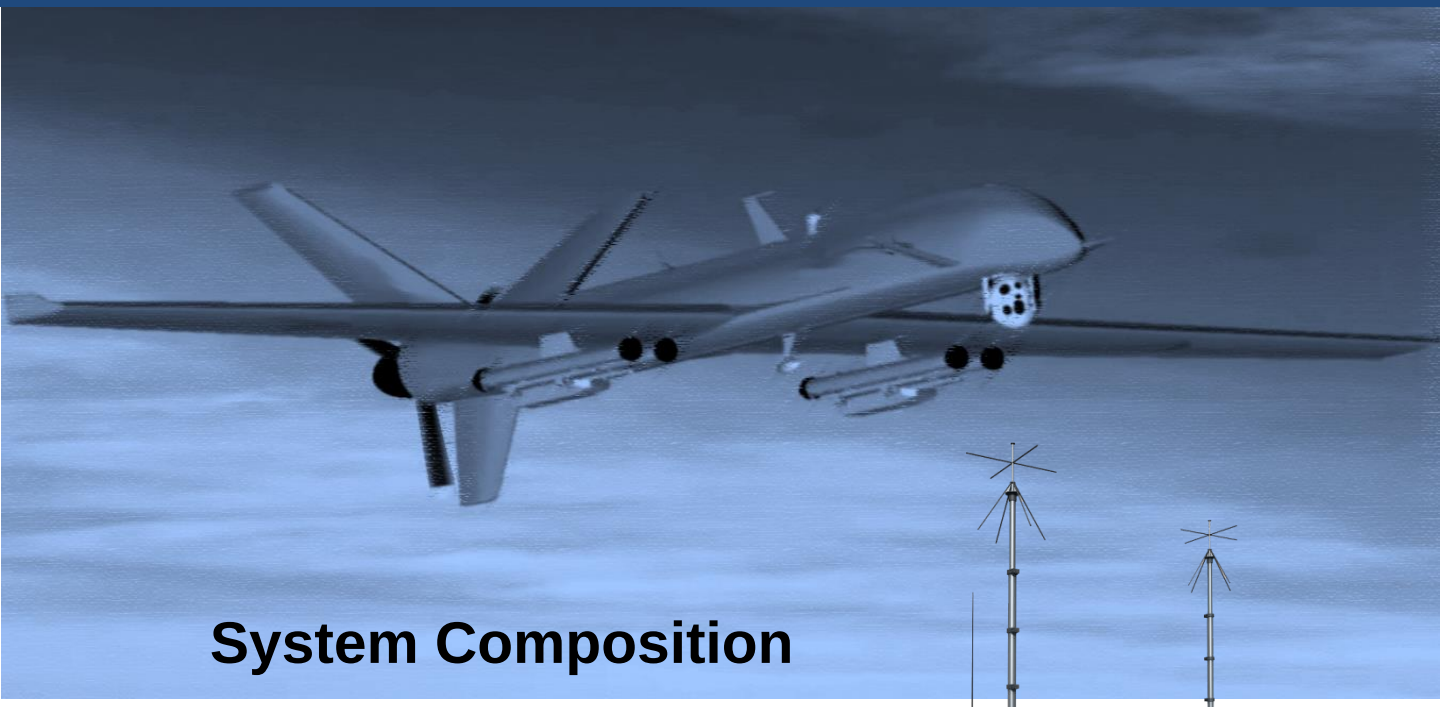
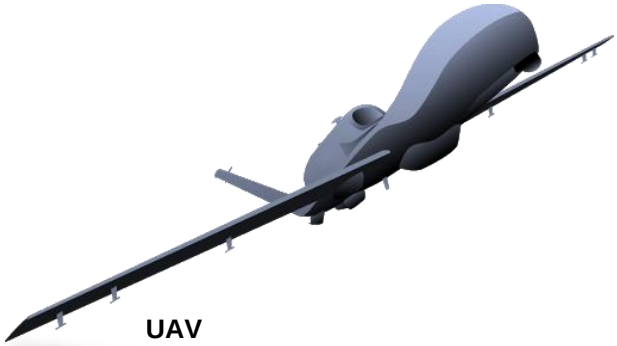


System Composition



UAV

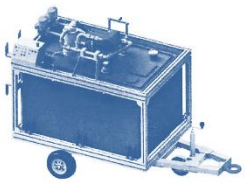
- Airframe;
- Engine;
- Controlling elements;
- Optical and aiming station;
- Fuel equipment;
- Radar station with aperture synthesis;
- On-board radar station (radar);
- Satellite navigation system;
- Navigation equipment;
- Communication antennas;
- High-precision inertial control system operated by laser gyroscopes;
- Communication equipment;
- Power supply system;
- Missile preparation and launch equipment;
- Missile suspension units;
- Navigation lights;
- Self-check equipment

MOBILE COMMAND POST

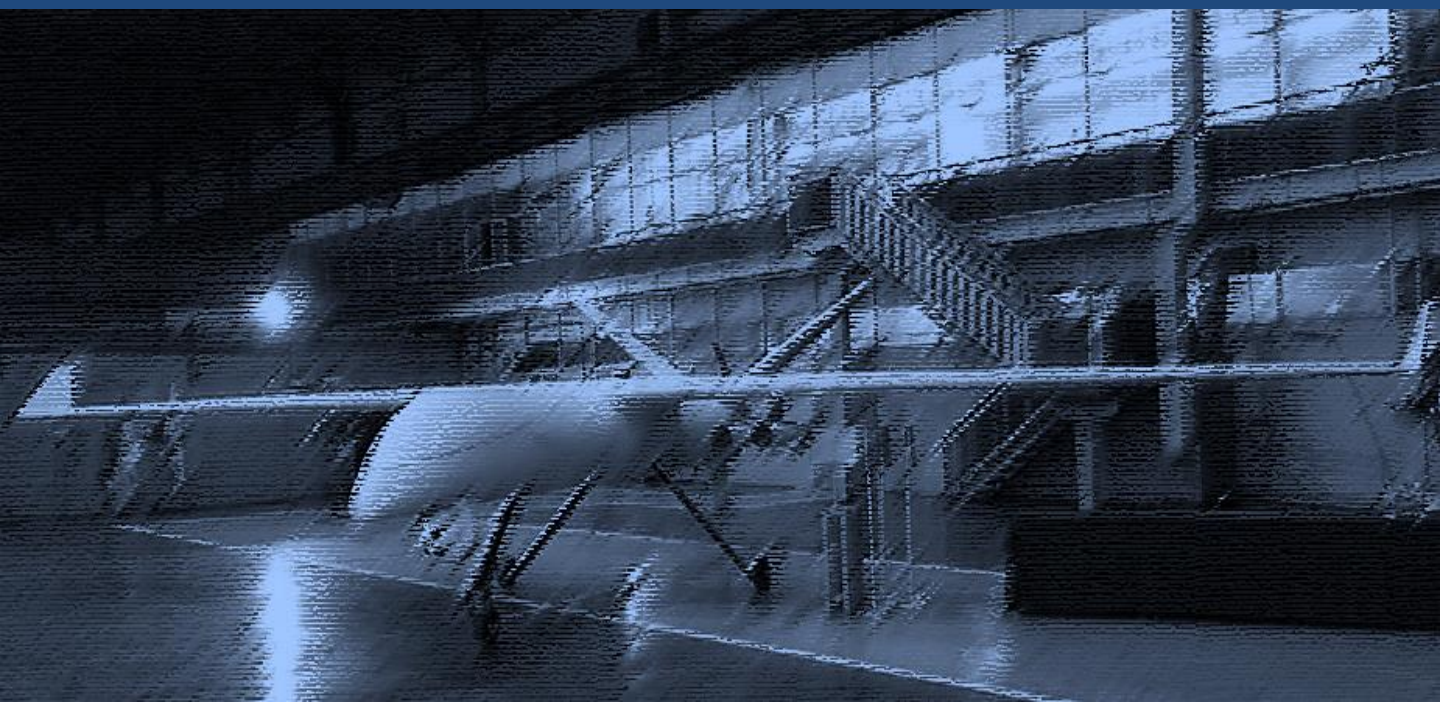
- Chassis on the basis specified by the Customer;
- Truck body;
- Communication antennas;
- Operators workplaces;
- Communication equipment
- Power supplier;

GUIDED MISSILES IN TRANSPORT AND LAUNCHING CONTAINER (RK-2P, R2-M, RK-10)

- Warhead;
- Booster and sustainer;
- Hardware compartment with electric steering drive unit;
- Transport and launching container



Also is included a set of spare parts and special equipment for the system preparation and maintenance



UAV COMBAT SPECIFICATIONS

UAV MAIN SPECIFICATIONS	
Takeoff weight, Kg	1130
Payload weight, Kg	300
Maximum speed, Km/h	210
Cruising speed, Km/h	150
Flight time, Hours	26
Maximum flight range, Km	3300
Maximum range / with retransmission station, Km	150/300
Maximum altitude, Km	9.1
UAV Length, m	8.57
UAV wing span, m	14
Engine type	ROTAX 914 UL
Navigation system	INS + GPS
Takeoff system	Automatic
Landing system	Laser Automatic

The unmanned aerial vehicle is designed for surveillance, air patrolling, reconnaissance and attack at operational and tactical depths, specifically at sea.

UAV CHARACTERISTICS

- High-precision inertial control system on laser gyroscopes
- Satellite navigation system
- On-board radar station
- Radar station with aperture synthesis
- Optical and aiming station
- Communication equipment
- 4 guided missiles RK-2P in transport and launching containers
- Engines; MS 500V 05C/CE, AI-450T2, Rotax 914
- Controlling elements

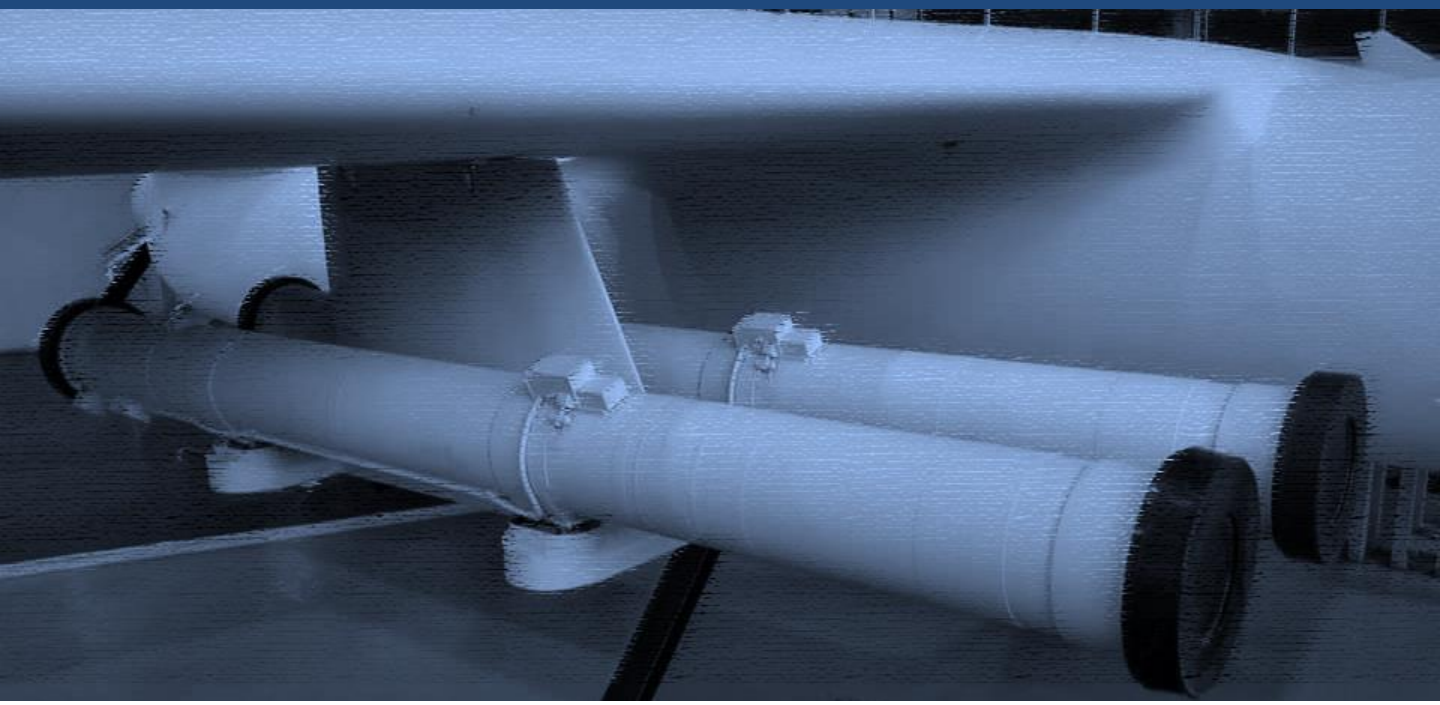
OPTICAL & AIMING STATION

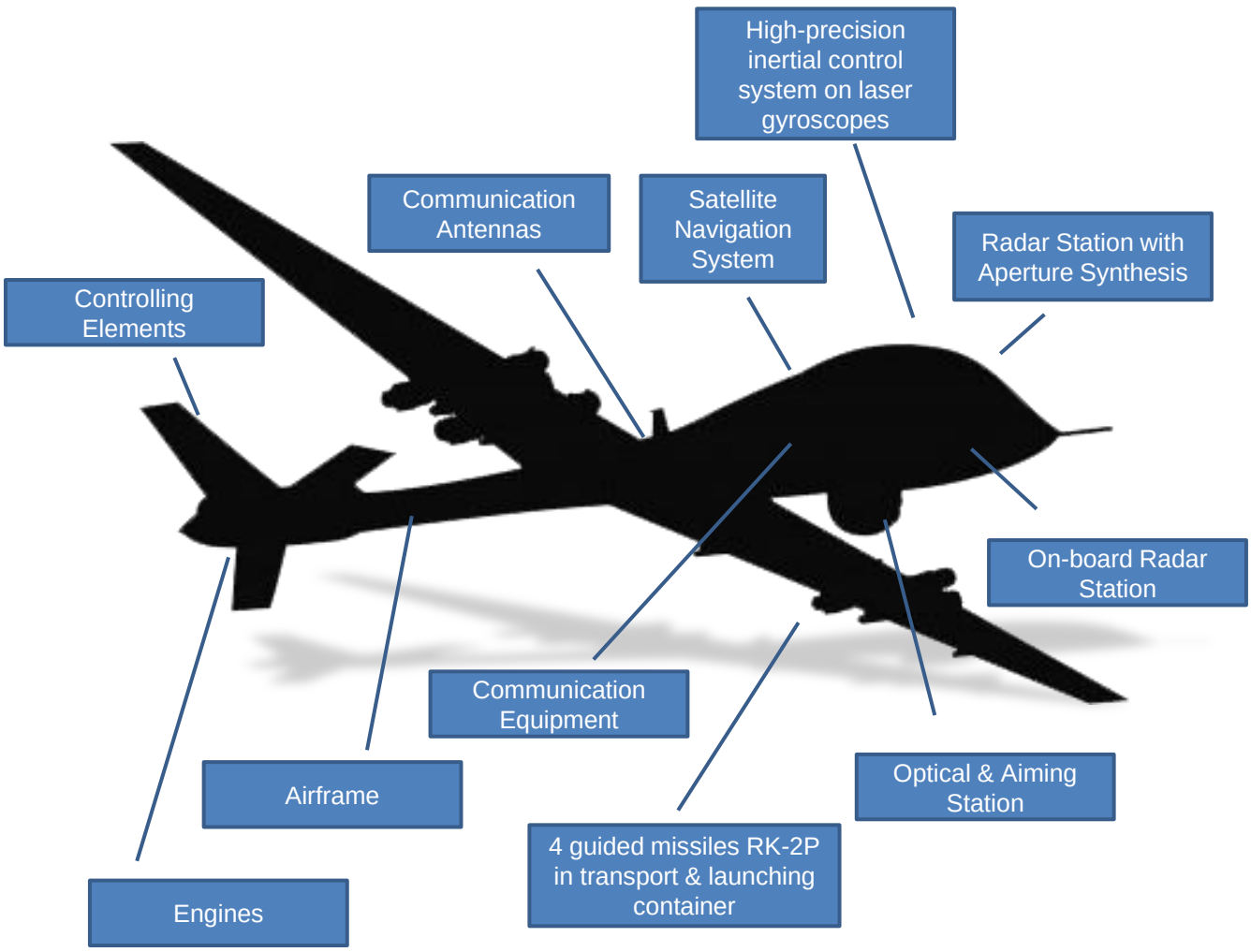
Optical and aiming station stabilization system: **4-axis gyro-stabilized platform**

TV channel:
- narrow field of view: **1° x 45’ x 1°**
- medium field of view: **6° x 3°20'**
- wide field of view: **23° x 13°30'**

Thermal imaging channel:
- narrow field of view: (**1,8 x 1,44)°**
- middle field of view: **(6 x 4,8)°**
- wide field of view: **(12,5 x 10)°**

Power supply voltage, V: **27 ± 2,7**
Average current consumption for the starting cycle, not more than, A: **20**
Operating temperature range, °C: **From -40 to +60**





MS-500V-05C/CE
AI-450-T2
ROTAX 914

ONBOARD RADAR STATION (RADAR)

Destination:

- Radar survey of the land or sea surface in the anterior-lateral sector of the angles relative to UAV axis;
- Detection of radiocontrast objects on the surface;
- Measurement of object coordinates with high accuracy;
- Measurement of radial extension of objects with high accuracy;
- Classification of objects by extension and radar cross section (RCS) level;
- Issue of target indications for identified objects.

Description	Value
Bandwidth	X
Probe Signal Power, W	Up to 100
Probe Signal	Phase-Modulated
Modulation	Pseudorandom Sequence 2047, or 1023, or 511 Symbols
Signal Processing	Coherent
Boundaries of the azimuth survey sector	From -90° to +90°
Boundaries of the survey sector at the angle of the site	From -15° to +15°
LOW RESOLUTION MODE	
Range resolution, m	22
Detection range of the sea target cruise type with RCS 10000…. 15000m2, Km	Up to 140
HIGH RESOLUTION MODE	
Range resolution, m	2.8
Detection range of the sea target cruise type with RCS 5…. 15m2, In the open ground Km	Up to 140
ULTRA HIGH RESOLUTION MODE	
Range resolution, m	0.3
Detection range of the sea target cruise type with RCS 5…. 15m2, In the open ground Km	Up to 5
Weight	Up to 40
Power Consumption, W	Up to 500

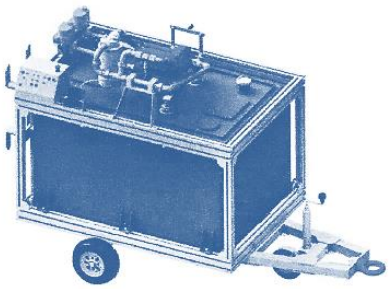
RADAR STATION WITH THE ANTENNA APERTURE SYNTHESIS

PURPOSE: to obtain the radar image of the earth's surface from the aircraft board.

ADVANTAGES: obtaining information regardless of difficult meteorological conditions and the area natural illumination level (clouds, smoke, etc.) with the detailing and definition of aerial photographs.

Specifications	Value	Note
Operating frequency, MHz	9300	range X
Stability of the carrier frequency, not more than	10^{-6}	in the operating temperature range
Type of modulation		linear frequency modulation
Receive channel bandwidth, MHz	600	at the level of -3 dB
Receive channel bandwidth, MHz	3	
Time range of automatic gain control, dB	31	periodic automatic gain control
Range of time automatic adjustment of noise gain, dB	15	automatic noise gain control based
Step gain control digital adjustments, dB	1	
Switching time of digital attenuators, ns, not more than	180	
Transmitter power, W, not less	20	Initial
Antenna aperture angle in azimuth, deg	5.7	transmitting-receiving antenna (aperture 22 cm)
Azimuth resolution, m	0.3	
Distance resolution, m	0.3	
Weight, Kg	To 3	

KIT OF SPARE PARTS AND SPECIAL EQUIPMENT FOR THE SYSTEM PREPARATION AND MAINTENANCE



The ground equipment system is intended for operation of the system in storage places and provides:

- Monitoring the technical condition of UAV;
- Refueling and checking for hermetically sealed storage tank;
- Battery charging;
- Suspension of armament;
- Monitoring the technical condition of the radar station;
- Monitoring the technical condition of the radar station;
- Check of hydraulic and electric power supply systems;

MOBILE COMMAND POST

Purpose

- Control of UAV flight modes;
- Control of the ammunition use from UAVs
- Visual control of ammunition;
- Definition and change of UAV mission (reconnaissance, impact action, correction of artillery fire..);
- Selection of targets for defeat and their distribution with the target indication;
- Ensuring the interaction of systems in the countermeasures environment;
- Coordination of systems autonomous combat;
- Control of the technical condition of UAV over the ground and in flight;
- Control of several UAVs

Carrier Vehicle

Overall dimensions
- length: 9m
- width: 2.8m
- height: 3.3m

Total weight, t: 25
Maximum power consumption, kW: 30
Supply voltage: 3N - 50 Hz, 220/380 V
Maximum length of connection cable, m: 250

SPECIFICATIONS OF UAV WITH DIFFERENT OPTIONS OF ENGINES

Specifications	MS-500V-05C/CE	AI-450-T2	ROTAX 914
UAV WEIGHT, Kg - Empty - Maximum Takeoff	 535 1225	 530 1220	 420 1130
Payload weight, Kg		300	
Maximum speed, Km/h	580	466	210
Cruising Speed, Km/h	335	275	150
Flight duration, h	3	5	26
Range with radio communication (with retransmission station), Km	150 (300)		
Maximum flight range, Km	1000	1300	3300
Control system	INS + GPS + Terrain map		
Communication system	Noise – protected radio communication		
UAV Length, m	8.57	8.57	8.57
UAV Wing span, m	14	14	14
Maximum Flight Height, Km	9.1	9.1	9.1
Takeoff System	Automatic		
Landing System	Automatic Laser		