



SPETS
TECHNO
EXPORT

SOKIL-300

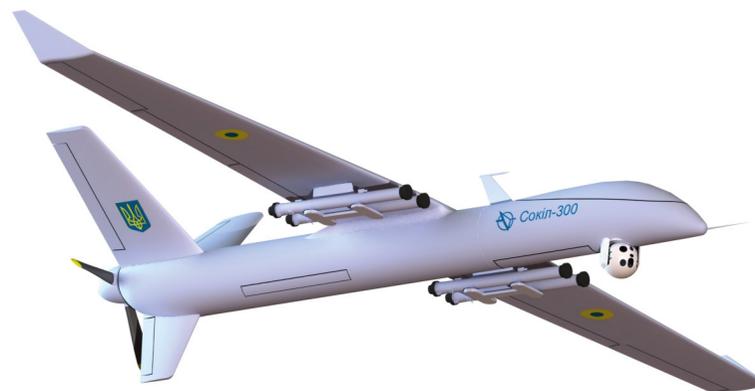
RECONNAISSANCE AND COMBAT UAV SYSTEM



SOKIL-300 is designed for reconnaissance, target identification issuing and striking at operational and tactical depth. It can also be used for sea patrol

SYSTEM COMPOSITION

- Airframe
- Engine
- Controlling elements
- Optical and aiming guidance station
- Fuel injection equipment
- Synthetic Aperture Radar station
- On-board radar station
- Satellite navigation system (GNSS)
- Navigation equipment
- Communication antennas



UAV

- The high-precision inertial control system based on laser gyroscopes
- Communication equipment
- Power supply system
- Equipment for missiles preparation and launch
- Missile hardpoints
- Navigation lights
- Self-control equipment



MOBILE COMMAND POST

- Wheel-base is determined by the customer
- Box van
- Communication antennas
- Workplaces of operators
- Communication equipment
- Power station
- Climate control equipment

GUIDED MISSILES IN TLC (RK-2P, RK-2M, RK-10)



- Warhead
- Booster and sustainer engines
- Hardware compartment with electric steering drive unit
- Transport and launching container (TLC)



Kit of spare parts and special equipment for the system preparation and maintenance

UAV SPECIFICATIONS



AI-450T2



ROTAX 914



MW FLY B25R



UL POWER 520IS

	AI-450T2	ROTAX 914	MW FLY B25R	UL POWER 520IS
Maximum takeoff weight of UAV	1220 kg	1130 kg	1150 kg	1190 kg
Maximum speed	450 km/h	230 km/h	220 km/h	240 km/h
Cruising speed	270 km/h	150 km/h	155 km/h	160 km/h
Flight duration	5 h	26 h	26 h	30 h
Maximum flight range	1300 km	3300 km	3300 km	3400 km
Maximum flight altitude	9100 m	9100 m	6100 m	6100 m
Payload weight	300 kg			
Maximum range/with retransmitter	150/300 km			
UAV length	8600 mm			
UAV wingspan	14000 mm			
Navigation system	INS+GPS			
Takeoff system	automatic			
Landing system	automatic by laser			

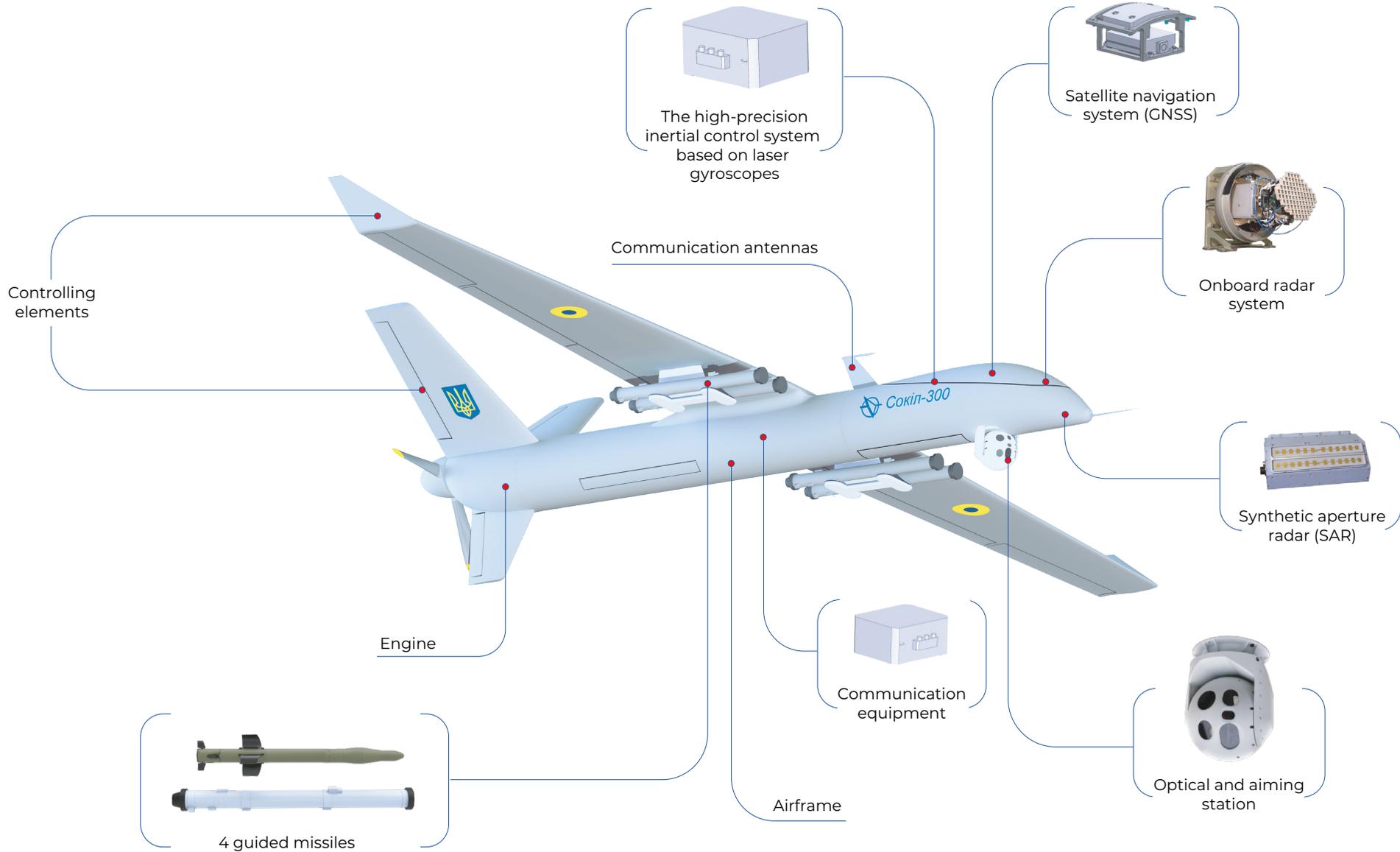


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UAV COMPOSITION

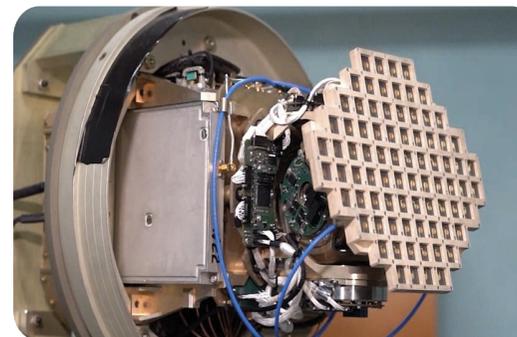




ON-BOARD RADAR STATION

PURPOSE:

- Radar survey of the land or sea surface in the area of the anterior-lateral angle relative to UAV axis
- Detection of radiocontrast objects on the surface of land and sea
- Measurement of object coordinates with high accuracy
- Measurement of radial extension of objects with high accuracy (ship type)
- Classification of objects by extension and radar cross-section (RCS) level
- Target indication issuing for identified objects
- Providing passive mode when detecting radio-emitting objects



Bandwidth	range X
Weight	up to 40 kg
Power consumption	up to 500 W
Probing signal power	up to 100 W
Probing signal	phase-code-modulated
Modulation	Pseudorandom sequence 2047 or 1023, or 511 symbols
Signal processing	coherent
Azimuth resolution	X-ray spectral analysis method
View angles in azimuth	from -90° to +90°
View angles in elevation	from -15° to +15°
LOW RESOLUTION MODE	
Range resolution	22 m
Detection range of cruiser-type sea targets	up to 140 km
HIGH-RESOLUTION MODE	
Range resolution	2.8 m
Detection range of the sea target tank type with RCS 5 – 15 m ² in the open ground	up to 14 km
ULTRAHIGH RESOLUTION MODE	
Range resolution	0,3

OPTICAL AND AIMING GUIDANCE STATION

The optical and aiming guidance station is designed for detection, target recognition, aiming, measuring range on target and to form laser control field for guided missile control at a target

Stabilization system

4-axis gyro-stabilized platform

TV channel:

- narrow field of view
- medium field of view
- wide field of view

1°45' x 1°
6° x 3°20'
23° x 13°30'

Thermal imaging channel:

- narrow field of view
- medium field of view
- wide field of view

1,8° x 1,44°
6° x 4,8°
12,5° x 10°

Distance measurement (rangefinder)

150 - 15000 m

Laser missile guidance channel

provided

Target illumination

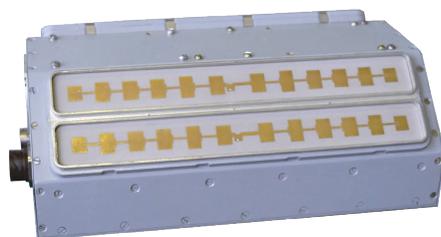
on the Customer's
request

Operating temperature range

from -40 to +60°C



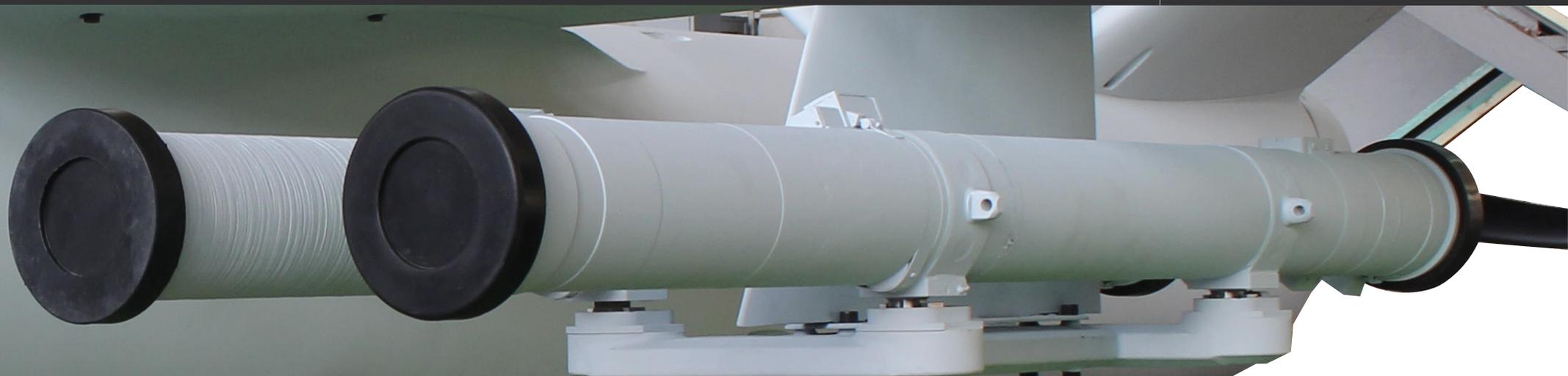
SYNTHETIC APERTURE RADAR STATION



The all-weather radar station with synthetic antenna aperture (SAR) is designed to obtain a radar image of the land and sea surface from an aircraft at any time of the day and in all weather conditions.

Operating frequency	9300 MHz (range X)
Center frequency stability, not more	10^{-6} (in the operating temperature range)
Modulation type	linear frequency modulation
Receive channel bandwidth	600 MHz (at the level of -3 dB)
Receiving channel noise figure, not more	3 dB
Range of temporary automatic gain control	31 dB (periodic automatic gain control)
Range of temporary automatic noise gain control	15 dB (temporary automatic gain control)
Step of digital gain adjustment	1 dB
Switching time of digital attenuators, ns, not more	180 ns
Transmitter power not less	20 W (outgoing)
Directional pattern width in azimuth, degrees	5,7°(transmit/receive antenna 22 cm aperture)
Azimuth resolution	0,3 m
Range resolution	0,3 m
Weight	up to 3 kg

GUIDED MISSILES



	RK-2P	RK-2M	RK-10
Launch altitude	from 15 up to 5000 m	from 15 up to 5000 m	from 15 up to 5000 m
Maximum launch range at altitudes from 15 to 5000 m	7 km	5 km	10 km
Missile weight	29 kg	21,2 kg	44 kg
Warhead weight	9,8 kg	9,2 kg	7,5 kg
Weight of TLC with a missile, not more	47 kg	40 kg	59 kg
TLC length	1920 mm	1440 mm	2200 mm
Missile overall diameter	130 mm	152 mm	152 mm
Number of missiles	4 pcs	4 pcs	4 pcs
Warhead	high-explosive fragmentation, hollow-charge, thermobaric		

MOBILE CONTROL POST

PURPOSE:

- Control of UAV flight modes
- Control of UAV ammunition use
- Visual verification of shell hit
- Definition and change of UAV functions (reconnaissance, combat action, adjustment of artillery fire ...)
- Selection of targets for destruction and allocation of targets with the issuance of target identification
- Ensuring the interaction of systems in the jamming environment
- Control of UAV technical condition on the ground and in-flight
- Control of several UAVs

Base chassis	as agreed with the Customer
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Overall dimensions:

- | | |
|----------|--------|
| • length | 9000 m |
| • width | 2800 m |
| • height | 3300 m |

Total weight	25 t
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Maximum power consumption	30 kW
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Supply voltage	3N ~ 50 Hz, 220/380 V
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THE KIT OF SPARE PARTS AND SPECIAL EQUIPMENT FOR THE SYSTEM PREPARATION AND MAINTENANCE



**THE SYSTEM OF GROUND EQUIPMENT IS DESIGNED TO SERVICE
THE SYSTEM IN STORAGE AREAS AND PROVIDES**

- Check of UAV technical condition
- Refueling and checking for tanks hermiticity
- Battery charging
- Weapon carriage
- Check of the radar technical condition
- Check of the optoelectronic guidance station technical condition
- Check of hydraulic and electrical power systems

COMPARATIVE SPECIFICATIONS WITH OTHER ANALOGUES



**SOKIL - 300
(UKRAINE)**



**BAYRAKTAR TB2
(TURKEY)**



**HERMES 900
(ISRAEL)**



**ORION
(RUSSIA)**

	SOKIL - 300 (UKRAINE)	BAYRAKTAR TB2 (TURKEY)	HERMES 900 (ISRAEL)	ORION (RUSSIA)
Maximum flight range	3300 km	3100 km	4000 km	3100 km
Maximum range/with repeater	150/130 km	150 km	4000 km (satellite)	250 km
Maximum flight altitude	9100 m	8200 m	9000 m	7500 m
Length	8,6 m	6,5 m	9,1 m	8 m
Wingspan	14 000 mm	12 000 mm	15 300 mm	16 000 mm
Payload weight	300 kg	55 kg	300 kg	200 kg
Takeoff weight	1130 kg	650 kg	1150 kg	1200 kg
Cruising speed/maximum	150/230 km/h	130/220 km/h	112/220 km/h	130/20 km/h
Flight duration	26 h	24 h	36 h	24 h
Engine	Rotax 914UL (MW FLY B25R)	Rotax 912	Rotax 914	Rotax 914
Weapon type	guided missiles	guided missiles	guided missiles	guided missiles
Obtaining a radar image of the earth's surface	provided	not provided	provided	not provided
Availability of on-board radar station for target detection and target designation	provided	not provided	provided	not provided
Can be used from behind clouds and in a fog	provided	not provided	provided	not provided
Ability to use weapon at low altitude	provided	not provided	not provided	not provided



EST. 1998

SPETSTECHNOEXPORT

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22

years of
experience

30

partner
countries

170

state and private
producers

30

research centers
and design bureaus



OUR EXPERTISE

Aircraft engineering and maintenance

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Military and special purpose armored vehicles

Small arms and light weapons

Precision-guided weapons

Radars and air defense

Maritime systems

R&D services





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