



ORION-E

MEDIUM-ALTITUDE
LONG-ENDURANCE
INTELLIGENCE,
SURVEILLANCE AND
RECONNAISSANCE
UNMANNED AIRCRAFT
SYSTEM

KRONSTADT



UNMANNED AERIAL VEHICLE

Orion-E is a long-endurance unmanned aerial vehicle intended for day-and-night aerial ISR missions in a wide range of climate zones.

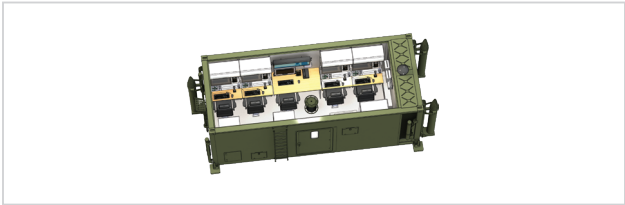


UAV PERFORMANCE

Wingspan, <i>m</i>	16
Height, <i>m</i>	3
Length, <i>m</i>	8
MTOW, <i>kg</i>	1000
Max. payload, <i>kg</i>	200

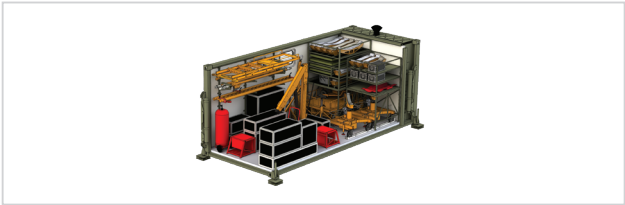
Cruise speed, <i>km/h</i>	120
Endurance (with payload of 60 kg), <i>h</i>	24
Flight ceiling, <i>m</i>	7500
Mission range, <i>km</i> with UAV-based radio relay, <i>km</i>	250 300

GROUND SEGMENT



Mission control and data processing station

- Mission planning,
- UAV and payload control,
- Data processing and reporting,
- Crew training.



Maintenance and support station

- UAV ground handling,
- UAV systems diagnostics,
- Maintenance and repair.



Launch and recovery station

- UAV automatic take-off and landing,
- UAV control in aerodrome zone.

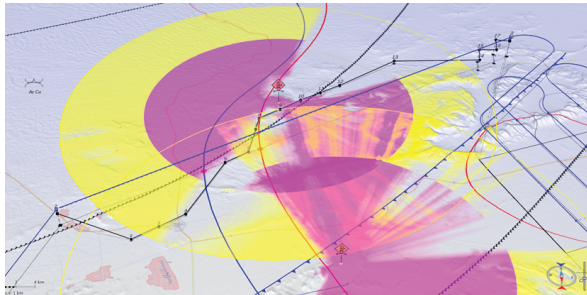


Data Terminal

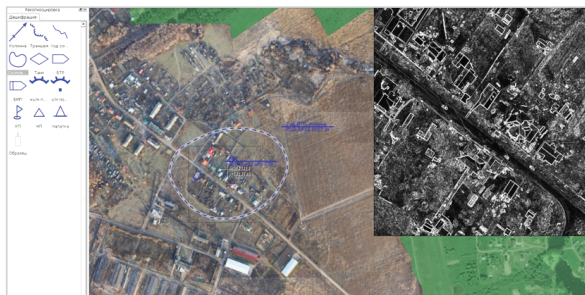
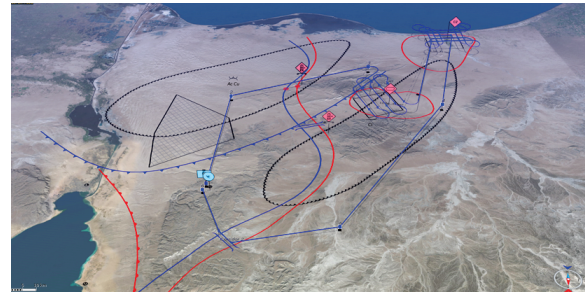
- Ground-to-UAV flight control communication,
- Telemetry information and payload data transmission.

MISSIONS

- Aerial intelligence, reconnaissance and surveillance,
- Target detection and tracking,
- Aerial mapping,
- Strike damage assessment,
- Radar survey,
- SIGINT/COMINT.



Intelligent mission planning based on operational, weather, terrain data and other information



Nearly-real time automatic photo mapping, 3D modelling

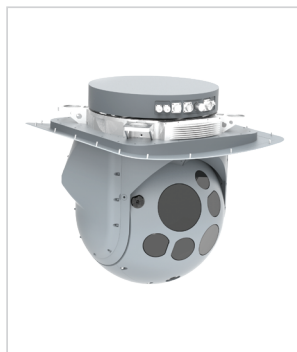


Payload control through Augmented Reality

PAYLOAD

EO/IR System

- Ground targets search and detection in visible and infrared spectrum,
- Measuring distance to target,
- Laser target designation.



Digital aerial camera

- High resolution aerial photography,
- Pictures storage.



Multi-mode radar

- SAR mode: terrain mapping,
- GMTI-mode: detection of fixed facilities and moving objects.

SIGINT/COMINT

- Communication signals interception,
- Ground radars detection and positioning.

Upon the request the system can be upgraded with customer-specified payloads.



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