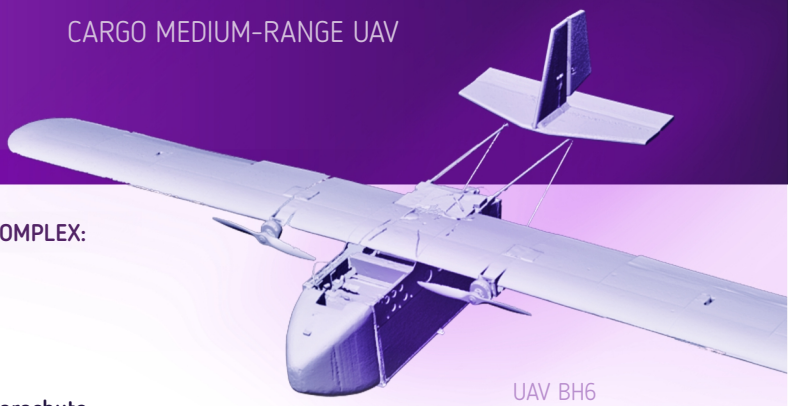
VACA
UAV DELIVERY

CARGO MEDIUM-RANGE UAV



UAV BH6
UAV BH20
UAV BH25

TECHNICAL CHARACTERISTICS OF THE "VACA" UAV COMPLEX:

Service ceiling:	up to **2200 m**
Operational range:	up to **125 km**
Payload options:	from **6** to **25 kg**
Launch method:	pneumatic **catapult**
Landing:	automatic/semi-automatic, **parachute**
The crew:	**4 persons** (**2 pilots**, **2 technicians**)
Setup time:	**25 min**
Folding time:	**7 min**

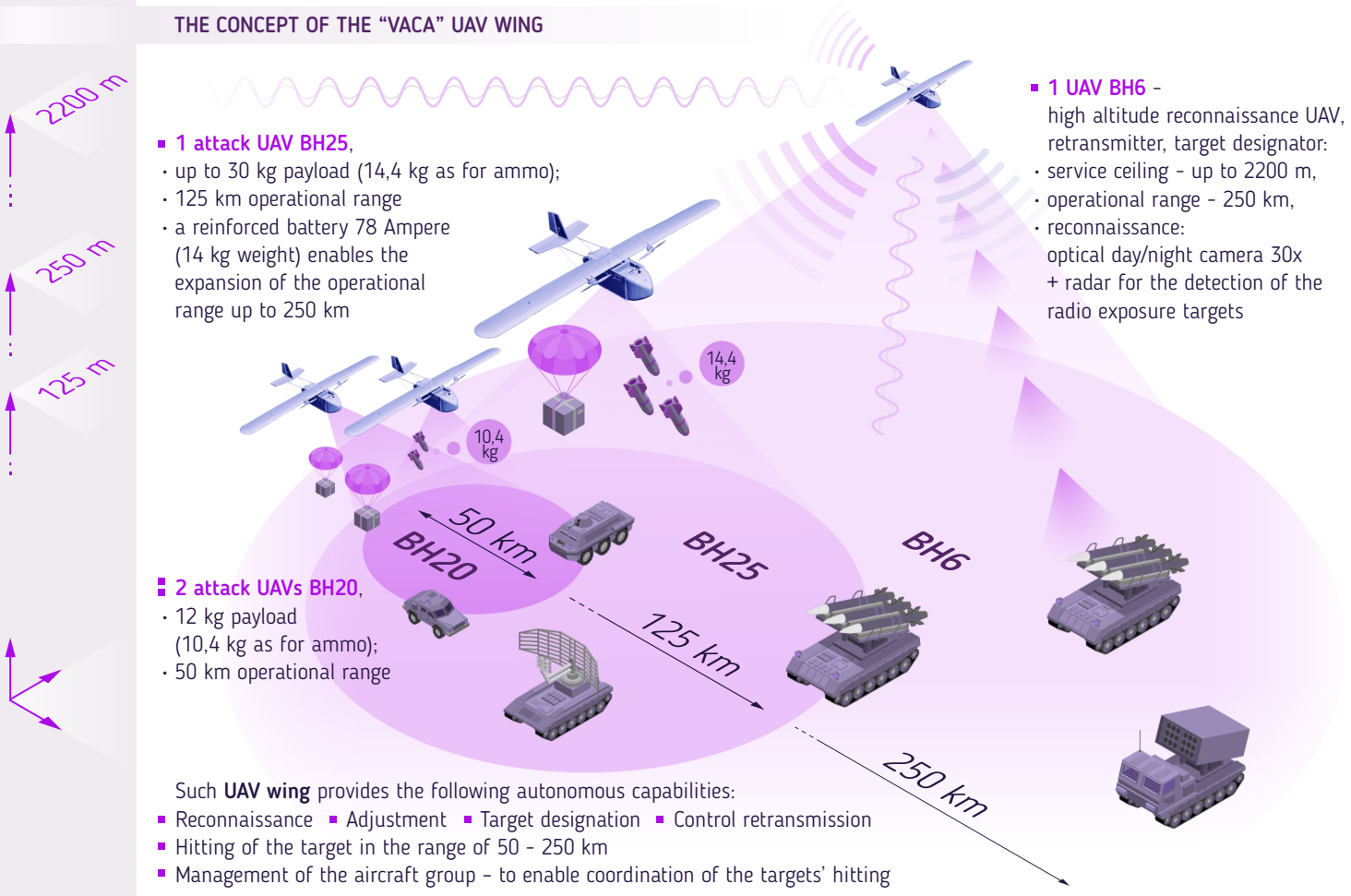
VACA is a company, tactical, automated, cargo UAV complex, used for delivering cargo and/or conducting attack operations in the area of responsibility of a company or battalion. It is used for:

- delivering cargo to the friendly units;
- delivering cargo to the Resistance forces on the occupied territories;
- delivering and spreading PSYOPS materials (leaflets);
- inflicting fire damage against personnel, AFV, or fortifications.

Cargos from **5** to **25 kg** per flight

- standard ammunition
  - PTAB 2.5 M - cumulative bomb - 2,2 kg
  - F-1 grenade
  - 60 mm mine
  - 82 mm mine
  - 120 mm mine
- self-made explosive materials
  - fragmentation - 0,8 kg,
  - high-explosive fragmentation - 2,2 kg,
  - FMR - 5,5 kg thermobaric,
  - FMRB - 10,4 kg thermobaric,
  - FMRBA - 10,4 kg high-explosive fragmentation,
  - FMRB - 14,5 kg thermobaric

THE CONCEPT OF THE "VACA" UAV WING



- **1 attack UAV BH25**,
  - up to 30 kg payload (14,4 kg as for ammo);
  - 125 km operational range
  - a reinforced battery 78 Ampere (14 kg weight) enables the expansion of the operational range up to 250 km

- **1 UAV BH6** - high altitude reconnaissance UAV, retransmitter, target designator:
  - service ceiling - up to 2200 m,
  - operational range - 250 km,
  - reconnaissance: optical day/night camera 30x + radar for the detection of the radio exposure targets

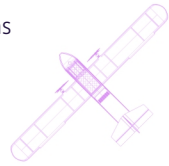
- **2 attack UAVs BH20**,
  - 12 kg payload (10,4 kg as for ammo);
  - 50 km operational range

Such **UAV wing** provides the following autonomous capabilities:

- Reconnaissance ▪ Adjustment ▪ Target designation ▪ Control retransmission
- Hitting of the target in the range of 50 - 250 km
- Management of the aircraft group - to enable coordination of the targets' hitting

ADDITIONAL EQUIPMENT:

- The surveillance equipment - **thermal camera**
- **Radar-detector** for the automatic guidance of the UAV "VACA" on the EW and SAM exposure (currently under development)
- **Lidar/Sonar**
- **Airspeed sensor (Pito)** with heating - for conduction of the flights at sub-zero temperatures, in icing conditions
- **Ballistic calculator**
- **Barometer**
- **Magnetometer**
- **2 GPS modules** - Drotek, Septentrio
- All models are prepared for launch using **jet starter** (developed and launched in a series)



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