

„IKA-BOMBER-120“

Rotary wing drone armed with one aerial bombs with a diameter of 120mm

PURPOSE :

IKA-BOMBER-120 is a certified military-grade, rotary-wing hexacopter designed and built. Its airframe is constructed from carbon-fiber-reinforced epoxy, enabling flights over 30 minutes with up to 25 kg of payload - an unrivaled capability on the market. The drone can operate fully autonomously, day and night, and can carry up to two 120 mm aerial bombs, deploying them one by one with pinpoint accuracy to neutralize targets.

MAIN CHARACTERISTICS :

- Powertrain and power source: BLDC electric motors and 4.5 kWh replaceable lithium-based battery
- Propeller diameter/pitch: 812.8 mm / 279.4 mm (32” / 11”)
- Max power of each motor: 5.7 kW (for 24 kgf at 4600 rpm)
- Dimensions: 2490 mm x 2400 mm x 670 mm (8.2 ft x 7.9 ft x 2.2 ft)
- Transport package dimensions: 1200 mm x 1100 mm x 850 mm (3.9 ft x 3.6 ft x 2.8 ft)
- Structure material: Carbon fiber reinforced polymer
- Maximum takeoff weight: 70 kg (154 lb)
- Optimal payload mass: 25 kg (44 lb)
- Remote controller: IKA-CTRL with custom FlightControl Application, simultaneous use of multiple controllers (control and monitor modes, separate armament control)
- Equipment: 3-axis EO/IR gimbal camera with 10x optical zoom.

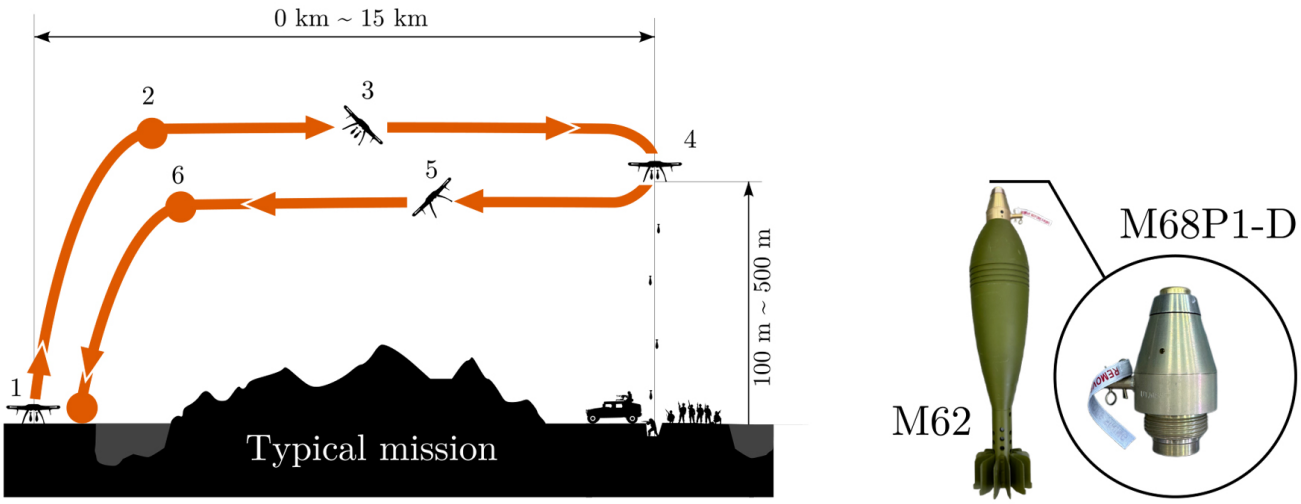


Figure 1 - Typical mission (left) and armament (right)

FLIGHT PERFORMANCE :

- Max flight distance: up to 30 km (19 miles)
- Mission radius: from 5 km to 15 km (from 3 miles to 9 miles)
- Operating altitude: from 150 m to 500 m (from 500 ft to 1600 ft)
- Flight time: between 20 min and 40 min
- Top speed: 90 km/h (56 mph)
- Cruise speed: 60 km/h (37 mph)
- Climb rate: 10 m/s (22 mph)
- Wind resistance: 8 m/s (18 mph)

ARMAMENT CHARACTERISTICS:

- Type and quantity: up to 2 aerial bombs with a diameter of 120 mm
- Bomb length with fuze: 593 mm (23.3")
- Fuze type: impact, superquick action, specially designed for drone use
- Fuze safety: two safety pins (transport and release)
- Mass of a single bomb with fuze: 11300 g (24.9 lb)
- Explosive charge: trotyl (TNT)
- Mass of explosive charge: 2400 g (5.3 lb)
- Blast radius (1 penetration / m^2): 18 m (59)
- Safe operation temperature range: -30°C to +50°C (-22°F to 122°F)
- Release altitude above ground: >150 m (> 500 ft)