

ROTARY WING DRONE „MANTIS“

Loitering munition armed with a 120 mm bomb



PURPOSE:

The **MANTIS** (codename KAM-120) drone is a rotary-wing kamikaze drone with a range of up to 15 km, designed and manufactured by the **PR-DC** company in a quadcopter configuration. It is armed with a 120 mm diameter aerial bomb (like Krušik M62), which is quickly and easily attached to the aircraft's structure before launch. The flight can be fully autonomous according to a predetermined path and target coordinates, or manually guided using a camera.

MAIN CHARACTERISTICS:

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|-----------------------------------------------------|----------------------------------------------------------|
| Powertrain: | 4 BLDC electric motors |
| Optimal payload mass: | 12.6 kg (27.8 lb) |
| Range: | up to 15 km (up to 9 miles) |
| Dimensions: | 2050 mm x 1750 mm x 530 mm (6.72 ft x 5.74 ft x 1.74 ft) |
| Transport package dimensions (set of three): | 1500 mm x 800 mm x 400 mm (4.92 ft x 2.62 ft x 1.31 ft) |
| Maximum take-off mass: | 34 kg (75 lb) |
| Guidance: | based on GNSS and camera |
| Source of energy: | Lithium battery |
| Remote controller: | IKA-CTRL with custom FlightControl App |

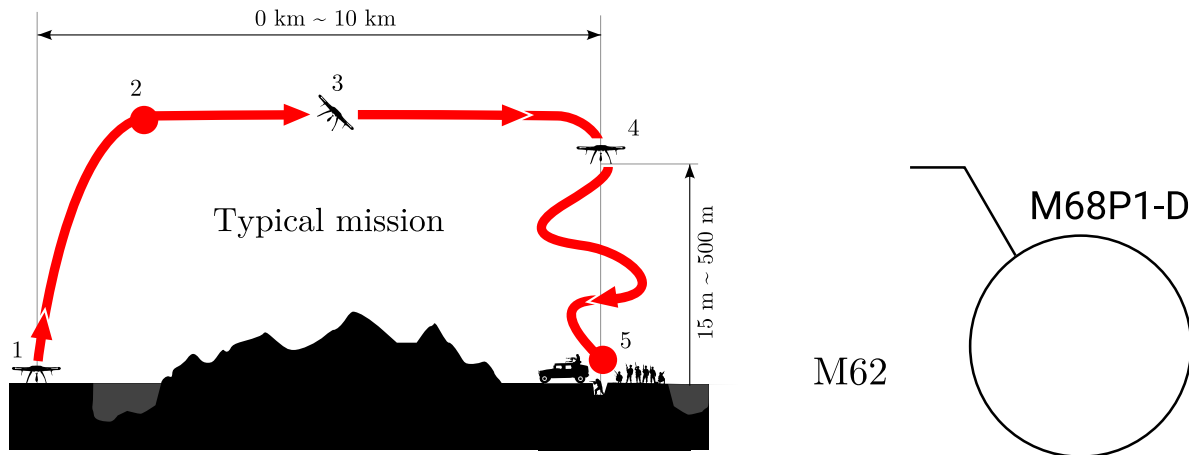


Figure 1 - Typical mission (left) and armament (right)

ARMAMENT CHARACTERISTICS:

| | |
|-------------------------------------------------|-------------------------------------------------------------|
| Type: | aerial bomb with a diameter of 120 mm |
| Bomb length with fuze: | 606 mm (23.8") |
| Fuze type: | impact, superquick action, specially designed for drone use |
| Fuze safety: | two safety pins |
| Mass of a single bomb with fuze: | 12600 g (27.8 lb) |
| Explosive charge: | trotyl (TNT) |
| Mass of explosive charge: | 2400 g (5.3 lb) |
| Blast radius (1 penetration / m ²): | 18 m (59 ft) |
| Safe operation temperature range: | -30°C to +50°C (-22°F to 122°F) |