

Airborne long-range NLW dispenser

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ABSTRACT

An airborne system is described to accurately transport and dispense non-lethal agents to distant targets in an environment sensitive to collateral damage, i.e. for pin-point deactivation of violent subjects.

Most non-lethal ammunition feature an effective range of max. 80 m, beyond which degraded ballistic accuracy does not allow for precise delivery to a single subject.

For distances above that and up to 1000 m suitable concepts and practical non-lethal devices are missing.

To close this gap, a concept based on a lightweight, optically guided plane was developed, capable of accurately delivering 1 kg of payload even to moving targets.

The conceptual design with its aerodynamical highlights is discussed, as well as the semi-autonomous guidance system consisting of a GPS-based flight computer and an optical homing system.

Results of test flights and the optical tracker are presented.