

# EASTSIDE AERIALS

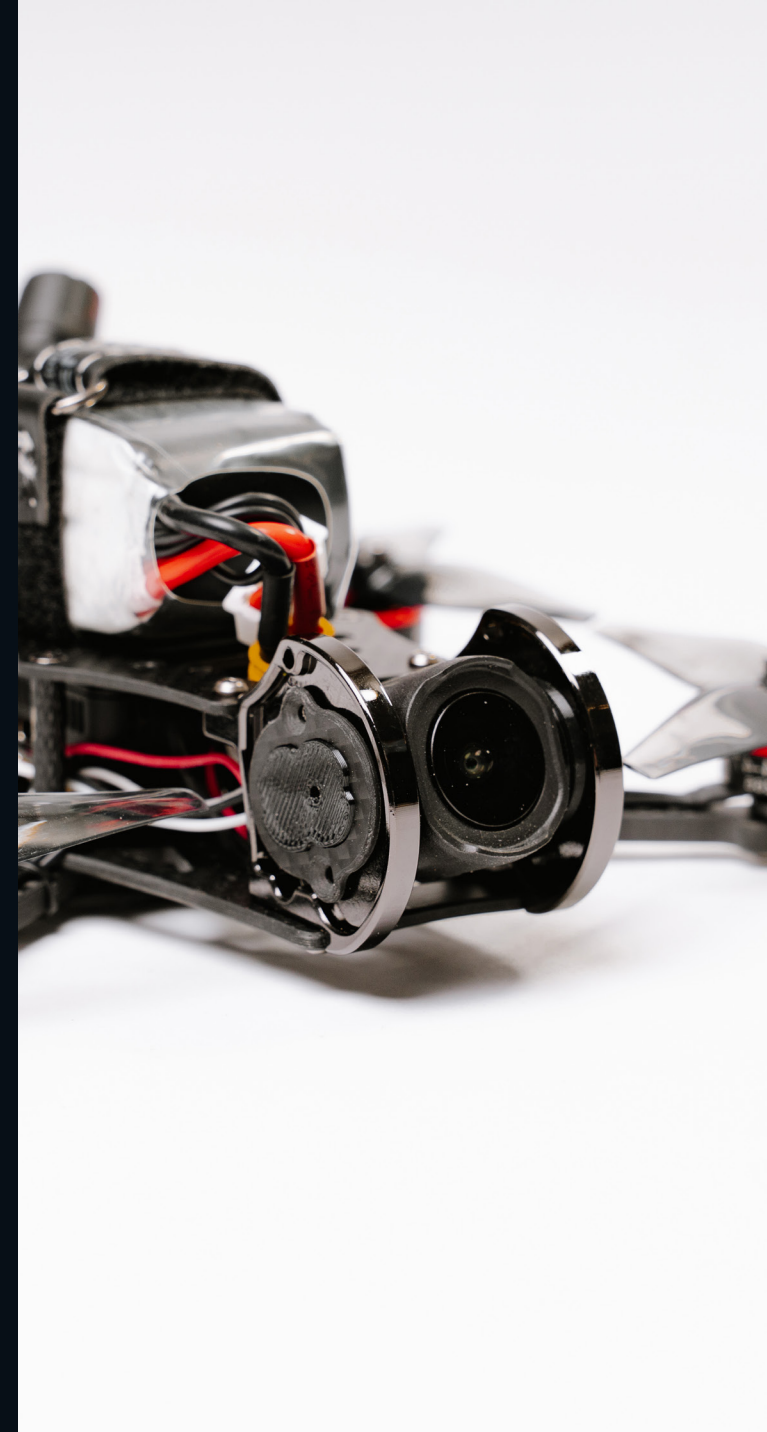
SUB 250 | FPV-DRONE FOR BROADCASTING

## **SUB 250**

Our FPV-Lite drone enables dynamic camera movements and precise live footage in HD or 4K, even in tight spaces and during rapid maneuvers.

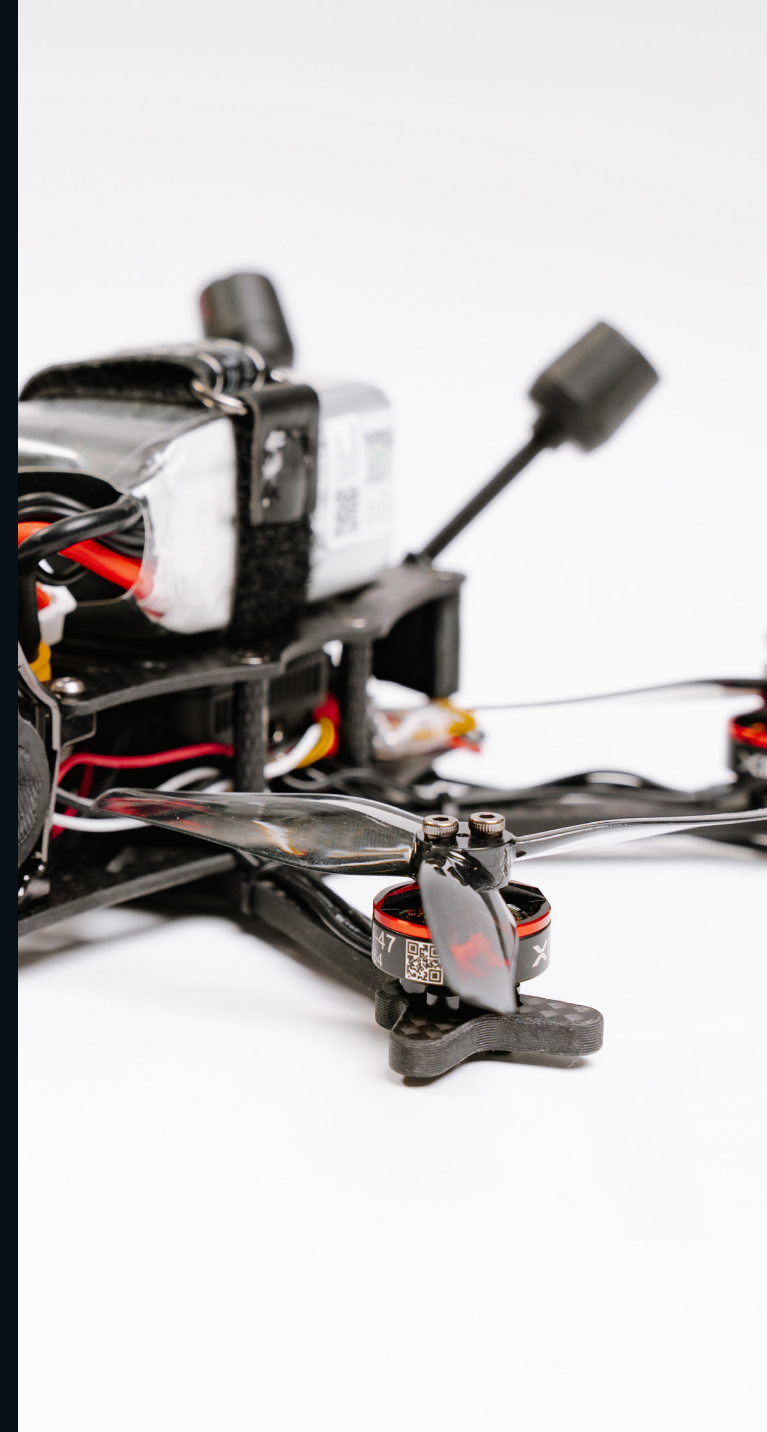
# HARDFACTS

<b>type</b>	multicopter (FPV quadcopter)
<b>type of propulsion system</b>	4 brushless DC motors
<b>maximum take-off mass (MTOM)</b>	< 0,250 kg
<b>characteristic dimensions</b>	13 cm
<b>flight time</b>	3 minutes and 40 seconds
<b>maximum speed</b>	96 km/h
<b>maximum altitude</b>	500 m technically 120 m above ground legally
<b>maximum range</b>	1 km
<b>frequency of telemetry</b>	915 MHz



## CAMERA & TRANSMISSION

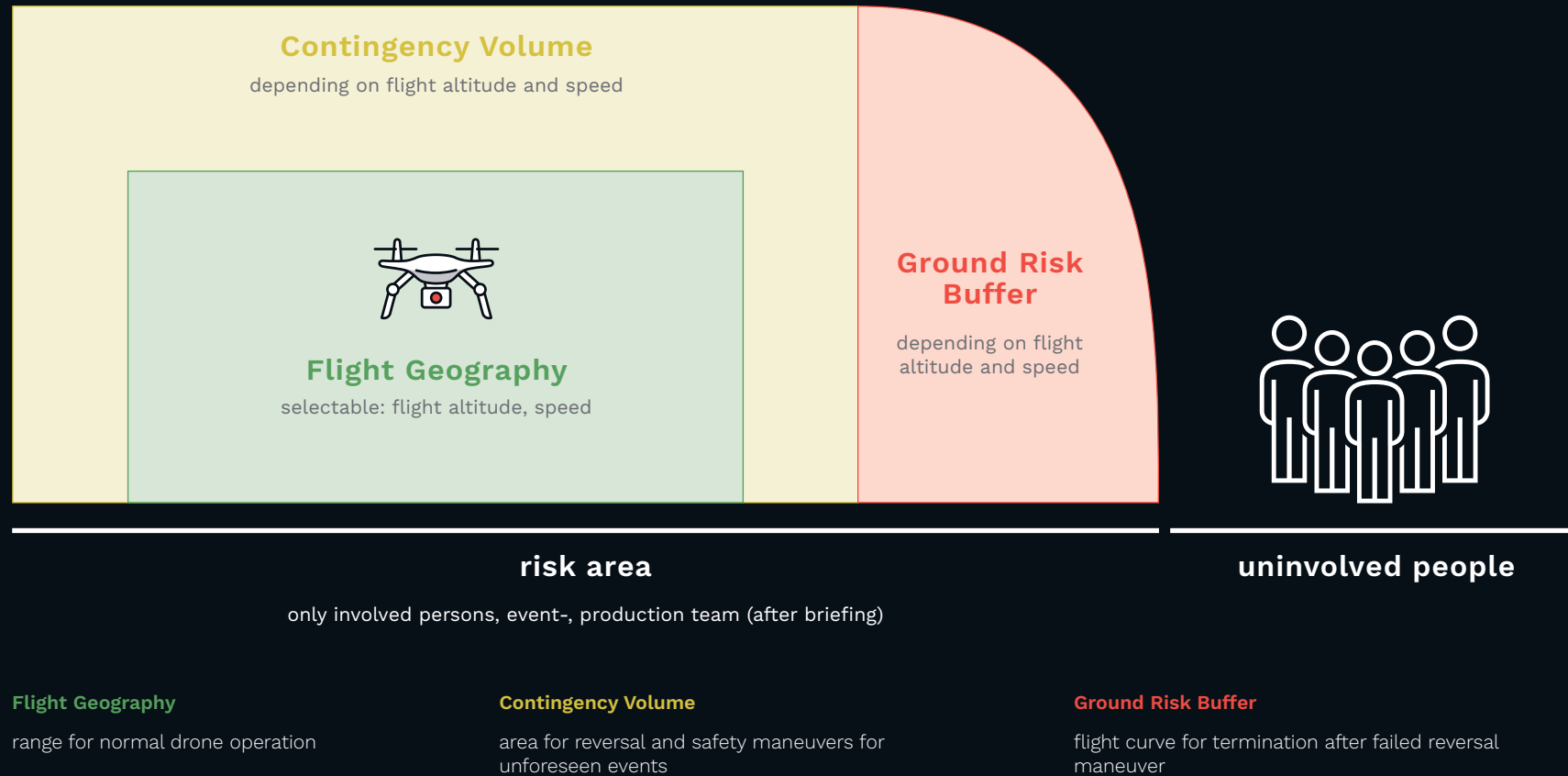
<b>camera</b>	GoPro, modified “Naked” version
<b>lens</b>	fixed focal length ultra-wide angle ( $\approx 14\text{mm}$ )
<b>native formats</b>	MP4 (H.264 / H.265); maximum resolution: $5599 \times 4927$ frame rates: 24 to 240 fps
<b>controllable parameters (DOP)</b>	resolution/frame rate, field of view, ISO, shutter, white balance, color profile (log)
<b>frequency video</b>	5.8 GHz ISM Band
<b>communication</b>	2.4 GHz RC with telemetry





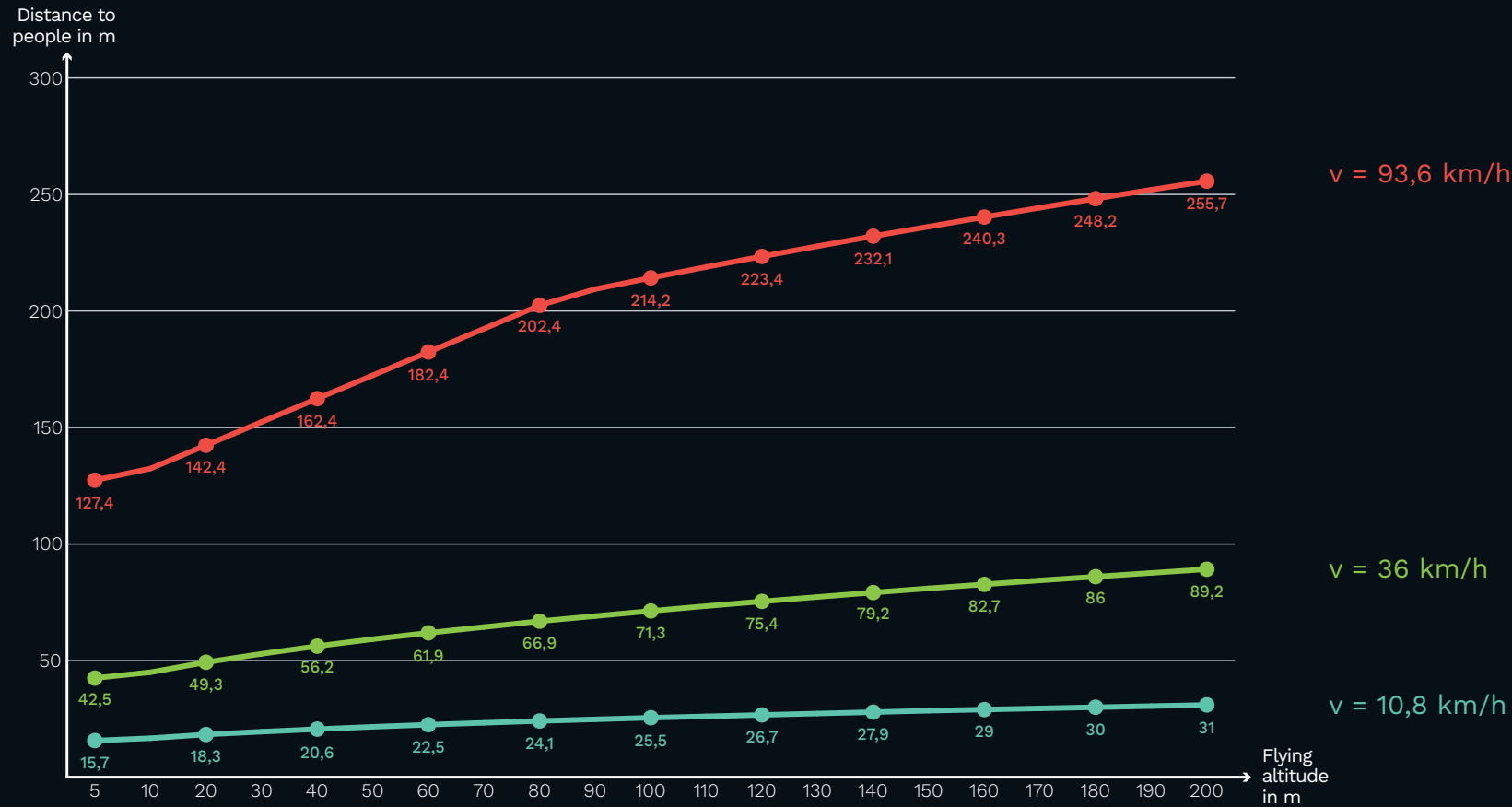
# SAFETY

Operational authorisation in the specific category (SORA) in the European standard forms the legal base for operations at large events with assemblies of people and in city centers.



# SAFETY

Instead of blanket prohibitions (city centers, airports, assemblies of people) projects in challenging environments can be realized by individual solutions (adjusting altitude and speed of UAV) (see diagram).



## SAFETY

- individual risk analyses, safety briefings as well as action and reporting chains for each production
- regular audits by independent authorities of the Luftfahrt Bundesamt
- all pilots with competence certificate A1/A3 and remote pilot certificate A2
- experience with international LIVE productions in wintersports, motorsports, major events
- experience in preparation of complex productions with several stakeholders (organizer, int. production, LBA, event security, police)



# CASE-STUDY „NEUJAHRSSPRINGEN 2023“

As part of our operational authorisation in the „specific category“ (SORA), an individual operating concept for following athletes (FPV) in competition was created, considering assemblies of people at a major event.



— **follow-zone**  
for following the athlete from start-gate (1) to outrun (2) high-speed + low altitude = large buffer-zone to grandstands

- - **recovery-zone**  
in critical area (2) and for return flight to start-gate (1) low-speed + higher altitude = low buffer-zone to grandstands

■ Ground Risk Buffer

## REQUIREMENTS

- desired flight geography needs to be communicated at least 2 weeks before production starts (at least 4 weeks when operation is abroad (EU))
- take-off and landing place within desired flight geography with uninterrupted visual line of sight to the UAV (increasments in terrain, rooftops, etc.)
- permanent parking for van near the stand (max. 50m) alternatively: space for base tent, 3x3m, level ground
- launch platform for UAV, 1x1m, flat surface (platform floor or similar without railings)
- 16A power supply at the stand
- signal-pickup, supply of a programm-feed and 4-wire for com-  
munication
- permission of property owner for take-off and landing
- fixed contact for security-related matters



# SPEED DRONE DEMO



# EASTSIDE AERIALS

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