

Multi-Domain AI + Computer Vision



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Enhancing military systems through AI

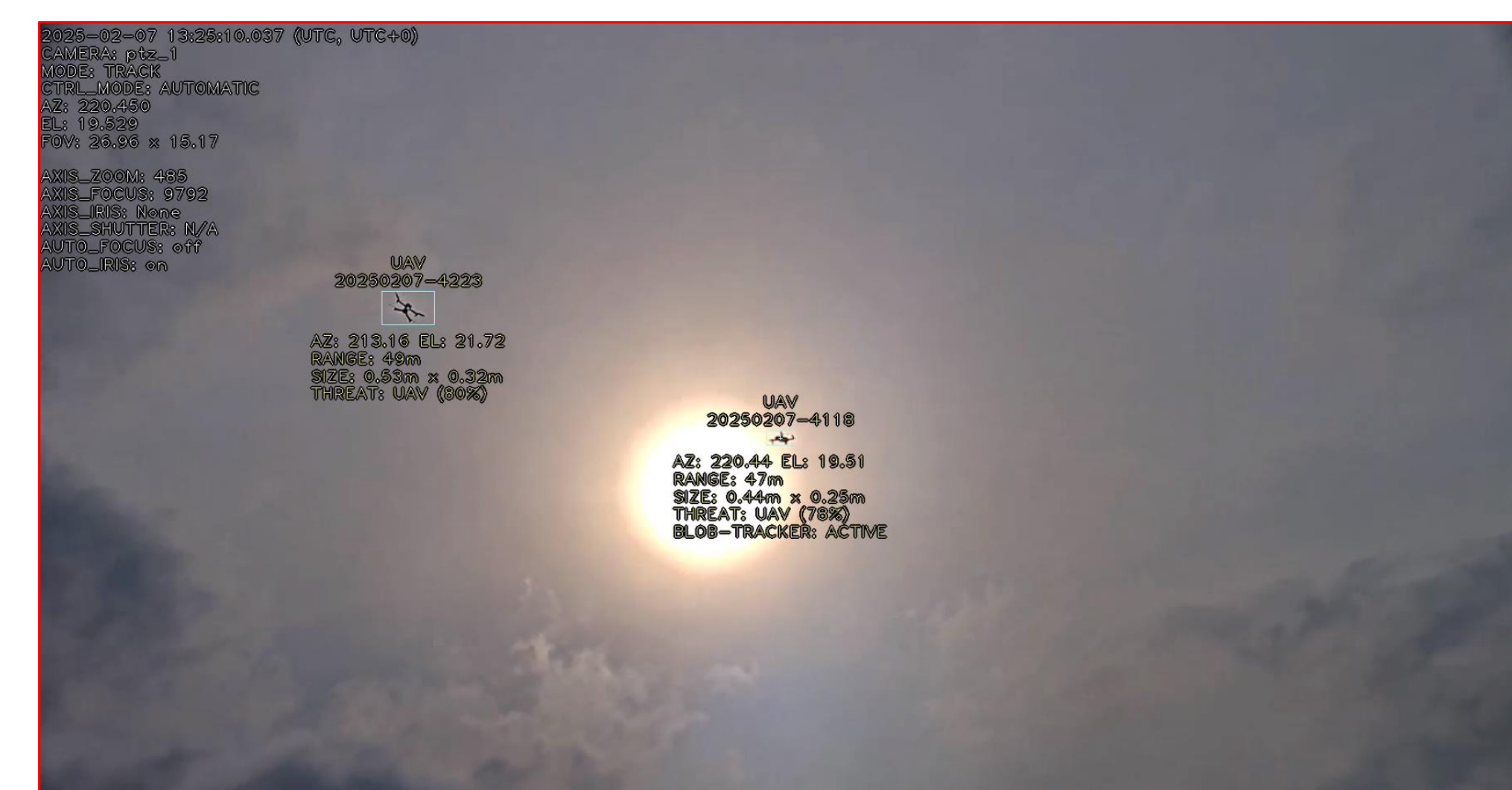
Current C-UAS challenges

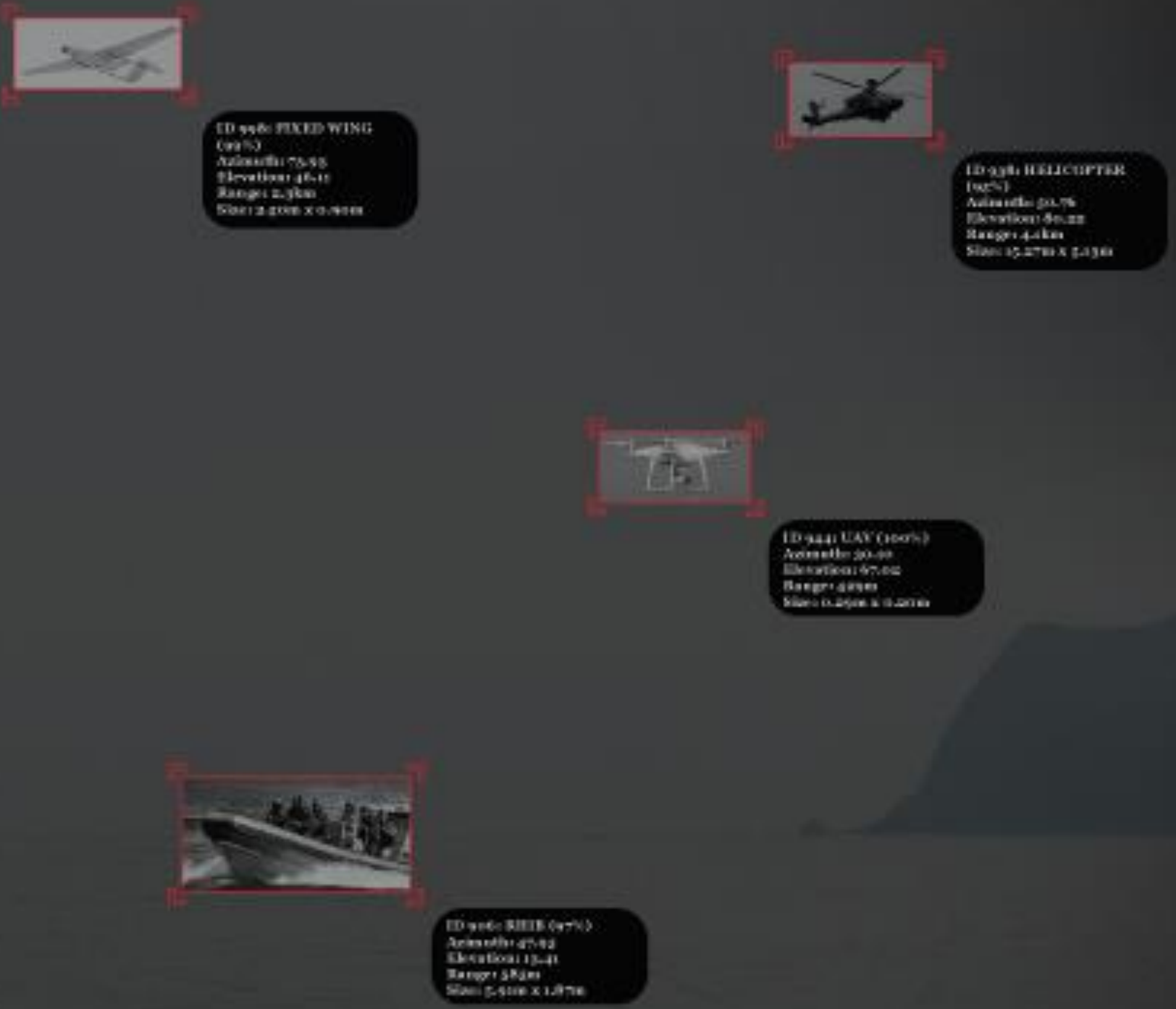
- Large number of objects from different directions must be recognized, classified & tracked
- Defence systems are oversaturated by the number of threats, threats must be prioritized and selectively combated
- Diverse sensors are in the field with different strengths/weaknesses
- Human in/on the loop: Complex situation hardly controllable for humans as decision-makers



Software defined defence solution

- Fusion of various existing sensors to achieve the best result depending on the situation
- Optical identification of new threats with EO/IR is independent of databases & enables humans to make qualified decisions
- Hardware independence for fast integration into existing sensor & C2 systems
- Edge solution is resilient to interference and works at low bandwidth





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Counter-UAS with AirScout

- AI-based processing of the EO/IR sensors (neural networks / machine learning)
- Fast automated response to detections by the primary sensor (radar)



→ Shorter reaction time, less work for the operator

- Automatic classification, visual verification by “human in/on the loop” still possible
- Precise position data with high update rate for effectors
- Sensor-agnostic solution (only integration of camera interface required)



Example: Maritime reconnaissance (coastal-based system)

- Surveillance of a coastal area (surface / low airspace) using a scanning camera (thermal)
- Automatic tracking and classification using a verification camera (EO/IR)

