Bart Ramaekers
Carma Police
February 7-8, 2024
Gaithersburg, MD, USA

Peter Monnens, Inspector
Bart Ramaekers, Superintendent
BART RAMAEKERS

SUPERINTENDENT

28 YEARS OF SERVICE

10 YEARS OF UAS PILOT

7 YEARS TRAINING EXPERIENCE

SENIOR LECTOR PLOT LIMBURG
Positioning of Belgium in Europe
Positioning of Province Limburg in Belgium
Positioning of Police Carma in Limburg
Live feed: CP-Ops + civil teams

BVLOS: 5 km (3,1 mi)

2 devices (DJI M30T – DJI M3T)

Mobile pilot
Deployment within 15 min.

100% attendance

Low cost
- € 25,000/year CFR. Helicopter
- 120 events/year
- More than 1200 since 2011

2024: Expecting +300 deployments

Less damages and injuries

Quick intervention according to standards
UAS in Europa

- 01/01/2021: Introduction of European drone legislation

- Geozones: Specific rules for certain zones in each Member State
UAS use in Belgium – UAS State Operator

Ministerial circular from the Minister of the internal affaires

Police departments, fire brigades and civil protection
UAS use in policezone Carma

General
- GDPR (General Data Protection Regulation)
- DPIA (Data Protection Impact Assessment – Data Protection Officer)
  - Processing of the images
  - Purposes
  - Legal basis
  - Proportionality
  - Guarantees to avoid violations of fundamental rights
  - Remedial measures
UAS use in policezone Carma

**Constitution**

art. 15 Immunity of the property

-> Recording of the images
-> Making pictures
-> No in-flight recording

-> Unless necessary for the assignment!
   Cfr. tracking of person/vehicle
UAS use in police zone Carma

**Police Act**

Visible use of a camera (CCTV, Drone, Picto)

Non-visible use of a camera

Processing of data
UAS use in Policezone Carma

**Camera Act**

- Only filming of the intervention (cfr streaming/recording)
- Inform staff in advance (briefing)
- No police staff:
  - Only real-time images under supervision (events, joint dispatch)
- Only aimed at gathering information
- **No**: racial or ethnic origin, religious or political background, trade union membership, sexual orientation, health status
UAS use in police zone Carma - risk mitigation

Before each flight
- Flight plan
- Risk analysis of the flight
- Permission (gouvernement/prosectors office)

During the flight
- Only UAS State Operator pilots
- Education and training
- Observing the sky
- Using the camera correctly/recording
- Live feed at CP-Ops/smartphone

After the flight
- Removing Micro-SD from the drone
- Saving images on a separate server
- Formatting Micro-SD
- Completing registers and flight logbooks
UAS use in police zone Carma - risk mitigation

Fleet

- DJI Mini 3 pro
- DJI Mavic 2 Enterprise (2)
- DJI M210
- DJI Mavic 3T
- DJI M30T

Geopolitical sensitivities

! Updates!

- delete data from device
- return to factory settings
- perform update
AI ACT Regulation
EU Artificial Intelligence Act: Risk levels

- Unacceptable risk
- High risk
- Limited risk
- Minimal risk
EU AI ACT Cheat Sheet

Understand the world’s first comprehensive AI law

THE BASICS

- Definition of AI: aligned to the recently updated OECD definition
- Extraterritorial: applies to organisations outside the EU
- Exemptions: national security, military and defence; R&D; open source (partial)
- Compliance grace periods of between 6-24 months
- Risk-based: Prohibited AI >> High-Risk AI >> Limited Risk AI >> Minimal Risk AI
- Extensive requirements for ‘Providers’ and ‘Users’ of High-Risk AI
- Generative AI: Specific transparency and disclosure requirements
PROHIBITED AI

- Social credit scoring systems
- Emotion recognition systems at work and in education
- AI used to exploit people’s vulnerabilities (e.g., age, disability)
- Behavioural manipulation and circumvention of free will
- Untargeted scraping of facial images for facial recognition
- Biometric categorisation systems using sensitive characteristics
- Specific predictive policing applications
- Law enforcement use of real-time biometric identification in public (apart from in limited, pre-authorised situations)

HIGH-RISK AI

- Medical devices
- Vehicles
- Recruitment, HR and worker management
- Education and vocational training
- Influencing elections and voters
- Access to services (e.g., insurance, banking, credit, benefits etc.)
- Critical infrastructure management (e.g., water, gas, electricity etc.)
- Emotion recognition systems
- Biometric identification
- Law enforcement, border control, migration and asylum
- Administration of justice
- Specific products and/or safety components of specific products
**KEY REQUIREMENTS: HIGH-RISK AI**

- Fundamental rights impact assessment and conformity assessment
- Registration in public EU database for high-risk AI systems
- Implement risk management and quality management system
- Data governance (e.g., bias mitigation, representative training data etc.)
- Transparency (e.g., Instructions for Use, technical documentation etc.)
- Human oversight (e.g., explainability, auditable logs, human-in-the-loop etc.)
- Accuracy, robustness and cyber security (e.g., testing and monitoring)

**GENERAL PURPOSE AI**

- Distinct requirements for General Purpose AI (GPAI) and Foundation Models
- Transparency for all GPAI (e.g., technical documentation, training data summaries, copyright and IP safeguards etc.)
- Additional requirements for high-impact models with systemic risk: model evaluations, risk assessments, adversarial testing, incident reporting etc.
- Generative AI: individuals must be informed when interacting with AI (e.g., chatbots); AI content must be labelled and detectable (e.g., deepfakes)
PENALTIES & ENFORCEMENT

- Up to 7% of global annual turnover or €35m for prohibited AI violations
- Up to 3% of global annual turnover or €15m for most other violations
- Up to 1.5% of global annual turnover or €7.5m for supplying incorrect info
- Caps on fines for SMEs and startups
- European ‘AI Office’ and ‘AI Board’ established centrally at the EU level
- Market surveillance authorities in EU countries to enforce the AI Act
- Any individual can make complaints about non-compliance

Based on publicly-available information following the political agreement reached by the EU institutions on 8 December 2023
Implementing AI
Police Carma

- Counting participants
- Recognizing patterns in the crowd
- Recognizing suspicious circumstances
- Recognizing criminal acts
‘The scary thing about the future...
there will be tiny cameras everywhere, and they'll be flying around like mosquitoes and drones.
That will be bad.
Drones are scary.
You can't reason with a drone.’

Matt Groening
PETER MONNENS

INSPECTOR OF POLICE

36 YEARS OF SERVICE

12 YEARS OF UAS PILOT

7 YEARS TRAINING EXPERIENCE

SENIOR LECTOR PLOT LIMBURG
The Future is ours

‘CARMA strives to maintain and strengthen its leading position in the dynamic (police) landscape by continuing to take on the role of innovator in a search for the use of new technologies and tactics in our police environment.’
Legal obligations

- Formatting DPIA and SORA cfr. European laws
- Cooperation DGLV (Belgian FAA)
- Corps directives
- Contracts with suppliers
POC policezone
Carma – Genk
2024

2 test setups
2 DJI Drone in a box, type M30T
Control from 1 central point
AI input
Evaluation August ‘24
POC policezone
Carma – Genk
2024 - ...

8 setups

2 DJI Drone in a box, type M3T

Control from 1 central point

AI input

Our entire Province?