Process of recording violations and installation of stationary recording devices
A bit of history (2023 - the 13th year of system operation)

- 2010 - Road Transport Inspection obtains authority to disclose using Stationary Recording Devices (SUR):
  - exceeding the speed limit
  - disobeying traffic signals

  enabled the construction of the Centre for Automatic Traffic Enforcement (CANARD)

- The first stage of the CANARD system was based on SLR equipment taken over from the:
  - National road managers (445 enclosures and 4 recording devices from the General Directorate for National Roads and Motorways)
  - Police (100 recording devices)

  (they allowed manual ripping of recorded violation data on violations was similarly (manually) entered into the CANARD computer system)

- The next steps in the expansion of CANARD's 'de facto automatic' system include the installation of new SUR devices with connectivity (GSM) to the CANARD information system. The connectivity allows real-time supervision of vehicle traffic at locations of the SUR and remote configuration of devices.
Structure of the Centre for Automatic Traffic Enforcement (CANARD)

- Installation and Equipment Maintenance Department
- Proceedings Department I, Proceedings Department II
- Department of Analysis and System Development
- Supervision and Organization Department
- General Department
Implemented tasks:

✓ Related to the operation of the automatic traffic surveillance system:
  • ongoing remote supervision of the correct functioning of equipment in the system (Poland) and direct control of SUR in the field (in the area of CANARD operations)
  • preparation and implementation of contracts for repair and legalization of stationary recording devices
  • preparation and implementation of agreements with local governments on installation, transfer of devices
  • participation in tender committees and implementation of contracts related to system expansion
  • coordination of installation of new and relocated recording devices, their technical acceptance

✓ Site typing for newly purchased equipment / relocated equipment conducted based on in-house resources gathered in connection with the implementation of SUR installation requests and on the basis of road safety analyses prepared by external parties
Recording devices

We operate on 523 stationary devices

- 22 recorders of passing red lights at intersections (sets)
- 462 speed cameras
- 37 sectional measuring devices average speed
- 2 recorder of passing red lights at railroad crossing
- 30 recorders of passing red lights at intersections
- 26 speed cameras (already installed)
- 39 sectional measuring devices average speed
- 5 red light passing recorders red lights at railroad crossings

We are in the process of extending the system by 100 new fixed equipment locations.
Stationary Recording Devices - type of measurement:

1) spot speed measurement

2) sectional measuring devices average speed

3) Registration of crossing at red lights (including at railroad crossings)
Stationary Recording Devices - device models:

Spot speed measurement - speed camera - operation of the device based on the use of the Doppler effect, i.e. the magnitude of the difference in the frequency of the microwave sent from the device and reflected by the moving vehicle is proportional to the speed of the vehicle.

Speed cameras used in the system:

Fotorapid CM, Fotorapid CF - producer: Zurad Sp. z o.o.

Multaradar CD - producer: Jenoptik Robot GmbH

Mesta Fusion RN - producer: IDEMIA IDENTITY & SECURITY FRANCE
Stationary Recording Devices - recording violations:

- Flashlight
- Lens cover for the recording device
- Housing bracket
- Integration device sending data to the center
- Radar head cover
- Enclosure of the recording device
- Mast
- Foundation
Stationary Recording Devices - device models:

Sectional speedometer - records the average speed of vehicles that pass over a specified section of road. The basis of the measurement is the measurement of the vehicle's travel time along a road section of known length. The speed is calculated as the quotient of the length of the measuring section and the measured travel time.

Uhicam VELOCITY3 - producer CAMEA spol. s r.o.
Stationary Recording Devices - recording violations - sectional measurement:

1. The camera mounted at the beginning records the time the car enters the stretch and takes a picture of the vehicle.

2. The camera mounted at the end records the time the car leaves the section.

3. Before entering the monitored section a sign is set up, informing about sectional speed control.

4. The computer system, on the basis of the travel time, calculates the average speed at which the vehicle moved.
Stationary Recording Devices - device models:

registration of red light crossing
(including at railroad crossings)

NeuroCar RedLight – producer: CAMEA, spol. s r.o.

Red light monitoring is implemented from two cameras - a general camera, located in such a way as to record the state of the traffic light and the rear of the offending vehicle, and a detailed camera allowing registration of the front of the vehicle equipped with the ARTR (automatic license plate recognition) function.
Stationary Recording Devices - recording violations - red light:

1. The overview camera recognizes position of the traffic signal lights

2. The measurement camera performs detection of the vehicle on the stop line and its full identification (ANPR, MIR)

3. The overview camera captures the entire event by tracking the vehicle in the frame (car tracking)
Stationary Recording Devices - recording violations at rail-road crossings:

Devices recording offenses of disobeying traffic lights at a rail-road crossing consist of the following:

- Appropriately selected, according to the size of the rail-road crossing, the number of recording cameras and cameras of the ANPR system (license plate recognition).
- A computer controlling the recording device.
- A set of devices communicating with the central system.
Stationary Recording Devices - recording violations at rail-road crossings:

Most common causes:

- Ignoring a red light
- Failure to obey a STOP sign
- Bypassing closed semi-collars
- Entering the crossing when the barriers are lowered

Accidents and collisions that include vehicles and pedestrians on the railroad crossings/ passages cat. A-E since the beginning of 2023:

- Accidents and collisions: 123
- Seriously injured people: 19
- People killed: 31

*Situation as at: 06.09.2023 r. (source: bezpieczny-przejazd.pl)
Applications for installation of Stationary Recording Devices processed by GITD

- Between 2011 and 2022, employees of the General Inspectorate of Road Transport (field units - delegations and CANARD WU) processed 4289 applications for installation of stationary recording devices

- 2022 - 250 applications for installation of equipment were processed at CANARD, including:
  - local governments - 94 applications (37.6% processed)
  - individuals - 98 (39.2%)
  - road managers - 13 (5.2%)
  - Police - 16 (6.4%)
  - deputies, senators - 15 (6.0%)
  - public institutions, companies, etc. - 14 (5.6%)

At the same time, the territorial delegations processed 196 applications for the installation of stationary recording devices on roads of lower categories (other than national roads).
Mobile recording devices
Mobile recording devices complement the speed camera network. They are used throughout the country, primarily in places where it is not possible to install speed cameras.

The devices are installed in unmarked emergency vehicles used by traffic inspectors also when conducting roadside inspections and technical vehicles used to operate stationary recording equipment.

The GITD has 29 mobile recording devices (AD 9C) and 11 video recording devices (VideoRapid 2A).
Mobile recording devices

Unmarked emergency vehicles:
3 Volkswagen Passat vehicles
9 vehicles Ford Mondeo
10 vehicles Ford Focus
11 vehicles BMW 3

Marked technical vehicles:
7 vehicles Peugeot Partner
Mobile recording devices

As part of the ongoing project "Increasing the effectiveness and efficiency of the automatic traffic surveillance system", the purchase of 33 new vehicles equipped with various types of devices was planned, first 11 vehicles are already in use.
Mobile recording devices

Offenses recorded with mobile recording devices are processed in CANARD's CPD system, provided that inspectors did not punish the driver immediately after recording the offense.
During their daily work, inspectors use the Mobile Application to record inspection activities, a tool from the level of which they have access to external databases and cases handled in CANARD's CPD.
CANARD CPD system
CANARD CPD functional areas

- Control and preselection
- Handling of cases and proceedings
- Communication with the parties to the proceedings
- Payments and settlements
- Road infrastructure management
- Analysis and reports on CANARD activities
- Electronic customer service office (eBOK)
Electronic customer service office (eBOK)

Electronic customer service office (eBOK) is a tool available on the CANARD GTD website which allows registered users to access selected informations about cases and to conduct electronic correspondence in cases concerning registered road traffic violations.

265 249 – active number of users (status as of September 22, 2023)
% of automated case processes vs. manual activities

94.3%

5.7%
Integration with external databases

- Central Register of Vehicles and Drivers
- External Correspondence Operator
- Ministry of Justice
  - National Court Register (KRS)
- Narodowy Bank Polski
- National Bank of Poland
- Ministry of Digitization
  - National Contact Point (KPK)
  - Cross-border Information Exchange
- Ministerstwo Finansów
  - Ministry of Finance
    - Electronic enforcement title (eTW)
- Policja
  - National Police Information System (KSIP)
CANARD 2022 control activities

- Violations: 1,007,167
- Summonses: 927,835
- Fines: 497,521
Effectiveness of ongoing investigations from 2014 to 2022
Efficiency of the CANARD system

- ACCIDENTS: positive impact in 350 locations – 75.26%
- INJURED: positive impact in 296 locations – 63.66%
- KILLED: positive impact in 452 locations – 97.20%

The analysis shows that both the number of vehicles exceeding the speed limit and the number of traffic incidents have decreased in the vast majority of locations.
CANARD control activities - 11 years of efforts to improve road safety

- 13.5 mln registered violations
- 10 mln generated summonses to vehicle owners
- 5 mln fines imposed on offenders
- 907.6 mln zł amount of criminal fines imposed