

ATK Annual Report 2012

Road Safety Cameras



A collaboration between the Swedish Transport Administration and the National Police Board

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Automatic Traffic Control (Swedish: ATK) is a system for automatic speed monitoring using road safety cameras. The aim of road safety cameras is to reduce the average speed on our most hazardous roads and in this way decrease the number of fatalities and serious injuries. The ATK system is administered by the Swedish Transport Administration and the Swedish National Police Board.

The Swedish Transport Administration and the National Police Board have a joint coordinating body for the road safety camera system, called the ATK Council. The function of the Council is to administer the ATK system in the most efficient manner possible and to act in an advisory capacity for each respective authority.





Comments by the ATK Council Chairperson

Follow-up conducted by the Swedish Transport Administration shows that the effects of the road safety camera system remain good. The average speed at the cameras is the same as the posted speed, and the proportion of road users who drive too fast lies at the level set in the joint goal of the Swedish Transport Administration and the Swedish Police. The capacity we have planned for is 230,000 cases per year. A total of 231,900 cases were received by the National Police Board, and 70,000 of these have resulted in legal proceedings.

Road safety cameras have received a great deal of attention in the media as well as among road users. The Swedish Transport Administration's annual road safety questionnaire shows that road users have great confidence in the road safety cameras.

Special initiatives during 2012

Procurement ARGUS III

The Swedish Transport Administration's procurement of measuring stations and measuring systems continues. The aim is to ensure future opportunities for reinvestment and possible expansion of the ATK system with measuring stations, measuring systems and maintenance. The procurement was published on 26 September 2012.

Tracking Function

A new function in the handling of cases has been developed and implemented. This function makes it possible to identify, process and analyze information about vehicles that are frequently met with. The data can be sent to the police for further action.

Trials with activation models

Various models for activating measuring stations have been reviewed during the year. The chosen model frees up the resources of the Swedish Transport Administration and Swedish Police and may eventually increase the proportion of legal proceedings.

Björn Lidö

Chairperson of the ATK Council 2012



Introduction

Automatic Traffic Control (Swedish: ATK) is a system for automatic speed monitoring using road safety cameras. The cameras are placed on stretches of road and at locations where there is a substantial risk of accidents and where speeds were high prior to the installation of road safety cameras. The ATK system is administered by the Swedish Transport Administration and the National Police. The overall goal is to reduce the average speed on our most hazardous roads and in this way to decrease the number of fatalities and serious injuries.

The Swedish Transport Administration and the National Police Board share a joint coordinating body for the road safety camera system, called the ATK Council. The function of the Council is to administer the ATK system in the most efficient manner possible and to act in an advisory capacity for each respective authority. The ATK Council handles issues related to the ATK system in areas where it is desirable that state authorities act together. Some examples:

- long-term planning for the development and use of the ATK system
- the total size of the system, the number of stations and number of cases
- road safety impact and the community's acceptance of the system
- information.

Representatives on the ATK Council in 2012

Sven-Olov Hansson		National Police Board
Liselotte Jergard		National Police Board
Björn Lidö	Chair	National Police Board
Helena Eriksson		Swedish Transport Administration
Pär Gustafsson		Swedish Transport Administration
Claes Tingvall		Swedish Transport Administration
Anders Drugge	Co-opted	National Police Board
Eva Lundberg	Co-opted	Swedish Transport Administration
Bengt Svensson	Co-opted	National Police Board
Erik Stigsmark/Rune Hammarberg	Co-opted	Swedish Transport Administration
Ulf Carlsson	Co-opted	Consultant



ATK goals and effectiveness for 2012

The overall goal for the ATK system is to lower the average speed on our most accident-prone roads and in this way to reduce the number of fatalities and serious injuries. Here follows a report on the goals set up by the ATK Council for the ATK system in 2012 and the achievement of objectives with a comment for each goal.

> GOAL 1 – Reduction in average speed

The average speed on roads equipped with road safety cameras must be maintained or lowered compared to previous measurements.

Effectiveness

”Speeds are measured every three years at and between ATK stations. The latest measurement year was 2011 and the results were analyzed by Statisticon AB by order of the Swedish Transport Administration. Statisticon verified that ”speeds have dropped in connection with the establishment of road safety cameras and that they remained at the lower level thereafter.”.

The goal has been achieved.

Comments: We have verified that speeds have continued to fall on roads equipped with ATK after deployment in 2006, and that speeds on surrounding roads are also decreasing.

> GOAL 2A – The proportion of vehicles exceeding the reporting limit – national level

The proportion of vehicles at the national level exceeding the reporting limit for speeding at road safety cameras must not exceed the specified percentage levels at the following speed limits.

Effectiveness

The proportion of vehicles exceeding the reporting limit at different speed limits :

Speed limit	Goal (%)	Result (%)
Up to 50 km/h	2	1,9
60 km/h	2	1,6
70 km/h	2	2,8
80 km/h	1	0,9
90 km/h	1	0,6
100 km/h and above	1	0,1

The goal has not been achieved.

Comments: The goal has been made more stringent compared to previous years. A follow-up on observance of the 50, 70 and 90 km/h speed limits indicates that it has continuously increased since the system was installed in 2006. The high figure for the 70 km/h speed limit is due to low adherence at one site in Stockholm County (the Southern Link). The Swedish Transport Administration decided in 2012 to phase out that site.

> GOAL 2B – Proportion of vehicles exceeding the reporting limit – county level

The proportion of vehicles at the county level exceeding the reporting limit for speeding at road safety cameras shall not exceed the specified national level according to goal 2A by more than 50 per cent.

Effectiveness

The proportion of vehicles (per cent) that exceeded the reporting threshold for different speed limits:

Speed limit Goal	≤50 km/h 3%	60 km/h 3%	70 km/h 3%	80 km/h 1,5%	90 km/h 1,5%	≥100 km/h 1,5%
Dalarna		5,2		3,2		
Gävleborg		3,5				
Stockholm			6,9*			
Kronoberg				2,7		
Södermanland				4,8		

Only the counties that do not meet the goal are listed.

**See also Comments for Goal 2a*

The goal has been partially achieved.

Comments: The goal has not been met for the 60 km/h limit in the counties of Dalarna and Gävleborg or for the 70 km/h limit in Stockholm. In these counties there is one location or stretch where the speed is so high that the goal has not been achieved. Various measures have been taken along with the Swedish Transport Administration regions and the police authorities, such as manual police checks and the use of mobile ATK-units.

> GOAL 3 – Public confidence in the ATK system

To maintain public confidence in road safety cameras through information and reliable application of the system.

Effectiveness

The goal is measured through a question in the Swedish Transport Administration's annual road safety questionnaire, where the respondents take a position on the following statement: "Automatic speed surveillance (using road safety cameras) is a good way to monitor speeding violations."

72 percent of the respondents, more women than men, feel that automatic speed surveillance is a good way to monitor speeding violations. The strongest support occurs among 15 to 17 year olds and those aged 65 and above.

The goal has been achieved.

Comments: Acceptance of surveillance with road safety cameras since its introduction in 2006 has varied between just under 70 and just over 73 per cent. No tendency towards decreased acceptance in either men or women or any age group can be seen.

> Case 4B – Accessibility for activating road safety cameras

A minimum of 90 per cent of road safety cameras shall be available for activation.

Effectiveness

During 2012 the proportion of road safety cameras that were available for activation has averaged 80.3 per cent.

The goal has not been achieved.

Comments: Communication errors, administrative errors and road sign inspection equipment failure at the Swedish Transport Administration have had a negative impact on availability. During the year, the causes of errors in measurement stations have been analyzed; communication errors were the dominant cause of faults. During the year, fixed-line access was replaced by wireless transmission of cases which has dramatically reduced communication problems. Speed changes and road number changes have had a negative impact on availability.

> GOAL 4C – The use of mobile units

The mobile units shall be used on average for at least 100 measurements per unit and year.

Effectiveness

The mobile units have been used on a total of 1,304 occasions during the year. Each unit was used on average on 65 occasions per year (the busses were taken out of service mid-year).

The goal has not been achieved

Comments: The ten busses were taken out of service during the year. Of the fifteen trailers one (1) has largely been used for development of new software. It had therefore not been fully utilized in 2012. The use of trailers varies across the country.

> **GOAL 5 – Investigative capacity – incoming cases**

The capacity for the investigation of cases at the central investigation division of the National Police Board shall be at least 230,000 cases per year.

Effectiveness

During 2012, the ATK division reported 231,900 cases.

The goal has been achieved.

> **GOAL 7 – Proportion of investigable cases resulting in legal proceedings**

30 percent of all investigated cases shall lead to legal proceedings against the driver.

Effectiveness

During 2012, the National Police Board issued 70,000 fines and penalty orders for speeding violations registered in the ATK system. This corresponds to approximately 35 per cent of investigated cases.

The goal has been achieved.

> **GOAL 9 – Time until notification**

The time between the registration of a speeding violation and the issuance of the notification document shall not exceed 14 calendar days.

Effectiveness

During 2012, the time was on average 16 calendar days.

The goal has not been achieved.

Comments: The lead time was impacted by technical problems in the IT-based investigation system and to certain extent by the activation trials carried out in 2012.

(See also the section "Trial activation" below.)





Major events in 2012

Trial activation

In 2012, experiments with activating the monitoring stations were conducted to evaluate the effects of different types of activation models. The results have led to the streamlining of the administrative work common to both authorities related to the activation of monitoring stations. The results have also led to a new model that provides a more even inflow of cases to the Central Investigation Unit in Kiruna. The model was introduced in late 2012. This creates the conditions for reducing lead times and frees up time for investigation and research. The end result is that the proportion of prosecuted cases will eventually increase.

Vision 2020

"Road safety cameras are a national system that contributes to increased road safety. The system's high acceptance is maintained through good communication and continued legal security"

During 2012, the Swedish Transport Administration and the National Police Board produced a Vision 2020 plan for ATK. This was developed in consultation with road safety experts including the Swedish Transport Administration, the National Police Board, Umeå University, the Prosecutor's Development Centre and the Transport Agency. Vision 2020 was ratified by the ATK Council on 21 February 2013.

Procurement ARGUS III

The Swedish Transport Administration and the National Police Board run the ARGUS III project with a view to ensuring future opportunities for reinvestment and possible expansion. The project includes procurement of measuring stations, measuring systems and maintenance which are a part of the whole ATK system. In 2012 the project completed its work on expert feedback and international studies. ATK operations at the Swedish Transport Administration and the National Police Board have compiled working requirements for the ATK system.

The project has compiled requirements, and drawn up demand documents and tender proposal documents, in collaboration with the Swedish Transport Administration's procurement division. The procurement consists of three separate tenders for measuring equipment, measuring systems and maintenance.

Tender proposal documents for measuring equipment and measurement systems were completed in September 2012. On 26 September 2012 these two procurements were published. The period of tender expired on 6 March 2013. Procurement for maintenance is planned for 2013.

Tracking Function

One means of gaining acceptance of the ATK system is to ensure that a higher proportion of drivers who are guilty of speeding offenses are prosecuted. For this reason, a new function in the case management system has been developed and implemented. This means additional opportunities to identify, process and analyze information about vehicles that are frequently met with and for drivers who deliberately impede identification in order to evade prosecution and punishment.

Data from the ATK division with information about vehicles, vehicle owners, times and locations are sent to the police who are given the opportunity to operate with greater precision with regard to preventive road safety measures, such as speed measurement with laser instruments.

Mobile units

The ten mobile ATK buses were taken out of service during 2012, and the fifteen ATK trailers have been redistributed among the different police authorities based on how they are used. Technical upgrading of the trailers began during 2012 and will be conducted during 2013.

Goal assessment

The Swedish Transport Administration and the National Police Board have jointly reviewed the goals that are used to monitor ATK operations. The ATK Council has established the following goals for 2013:

Goal 1 – Average Speed

The average speed on roads equipped with road safety cameras shall be maintained or reduced compared with the preceding measurement.

Comments: The goal remains unchanged from last year.

Goal 2 – Observance of the speed limit

A: The proportion of vehicles at the national level that exceed the reporting limit for speeding violations road at safety cameras shall not exceed the specified percentage levels at the speed limits shown below.

B : The proportion of vehicles at the county level that exceed the reporting limit for speeding violations at road safety cameras shall not exceed the specified national percentage levels stated in Goal 2A by more than 50 percent.

• ≤ 50 km/h	2 %	• 80 km/h	1 %
• 60 km/h	2 %	• 90 km/h	1 %
• 70 km/h	2 %	• ≥ 100 km/h	1 %

Comments: The goal remains unchanged from last year.

Goal 3 – Acceptance

To maintain public confidence in road safety cameras through information and reliable application of the system.

Comments: The goal remains unchanged from last year.

Goal 4 B – Accessibility

Accessibility for activation of safety cameras should be 90 per cent or higher.

Comments: The goal remains unchanged from last year.

Goal 4 C – Mobile units

Each unit shall be placed by the road and activated for registering for at least 400 hours per year.

Comments : This is changed from the previous goal, which specified the number of occasions.

Goal 7 – Prosecution

35 percent of all investigable cases shall lead to the driver being prosecuted.

Comments: The goal proposes an increase from 30 to 35 per cent compared to the previous year.

Goal 9 – Investigation

For 90 percent of all cases, the time from when the speeding is recorded to when the notice is sent out shall not exceed 10 calendar days.

Comments: The goal has been changed from stating the time span until notification to specifying a percentage of those notified.

The following goals have been deleted:

Goal 5 – Capacity

The capacity for investigating cases at the National Police Board Central Investigation Division shall be at least 230,000 cases.

Organization

In 2012 Erik Stigsmark transferred to another position within the Swedish Transport Administration. Rune Hammarberg has replaced him as the technical manager for ATK at the Swedish Transport Administration.

Modernization of the IT system at the Swedish Transport Administration – ATK2

Achieved in 2012

The background to the current project, ATK2, is that the Swedish Transport Administration's part of the IT system for ATK is outdated and needs to be modernized with new technology and IT architecture. The aim is to achieve more efficient management by modernizing the IT architecture and minimizing the number of parts in the IT system. This will lead to easier management and reduced management costs. Modernization refers to both server (the core) and user (application). The experiences and requirements of ATK operations are being utilized in the overhaul of the IT system at the Swedish Transport Administration.

During 2012, the ATK2 project has

- developed and deployed Kalliope.
Kalliope is a web application, designed for e-readers used by the ATK project managers at the Swedish Traffic Administration, to survey and record the road signs along the roads. The inventory provides the basis for the periodic inspection of road signs at road safety cameras. The previous manual system has been completely replaced by this application. The risk of misregistration is substantially reduced.
- developed and deployed a new mobile phone text-messaging service for sending and receiving text messages in ATK
- replaced fixed-line telephone connections with wireless modems for the transfer of cases and traffic data on approximately 600 stations (this work is performed by an external supplier.)
- worked with requirements, usability, test cases and development.

For 2013

ATK2 will be in operation by November 2013. All measuring locations must be equipped with wireless modems by mid-2013.

Enhanced functionality in case management by the police

In 2012, development activities were carried out continuously in the systems support for ATK case management for the purpose of streamlining and simplifying the investigation process. Development and commissioning have included features such as tracking registers and development of overall functionality. The work has been carried out in close collaboration with user representatives of the ATK section, and it reflects the



experiences of the operations over time. These measures have produced improved system support, with regard to such things as:

- investigation status
- document review
- printing of protected identities
- scanning of RIOB documents
- alerts for errors in driver's license privileges
- simplified search features
- improvements in the "tree structure"
- improved assessment codes
- enhanced transfer options.

Review of the criteria for the establishment

ATK measuring stations have been established at locations that best meet the criteria developed by the Swedish Transport Administration and adopted after recommendations by the ATK Council. The present established criteria were produced between 2006 and 2007. A review was initiated in 2012 and was completed during 2013. The review was carried out nationally and regionally by a working group with representatives from the Swedish Transport Administration and two urban municipalities, and with expertise from road safety, environment and the relationship between cause and effect.

Agreements with other road managers

ATK measuring stations occur mainly on state roads. To provide municipalities with the option of establishing ATK, an agreement has been drawn up that regulates ownership between the municipalities and those of the Swedish Transport Administration. This agreement means that Swedish Transport Administration owns the measuring stations and is responsible for operation, maintenance and road sign controls. The municipalities are responsible for the sites and electricity and pay an annual fee to the Swedish Transport Administration for running costs. The agreement does not mean that a municipality is free to decide on the installation of ATK stations. The Swedish Transport Administration decides on installation from a national perspective, based on stipulated criteria (see above).

Expansion in 2012

In 2012, no new road safety cameras were installed. The ongoing installation from 2011, however, has been completed.

ATK in figures

		2012	
Roads with ATK, km		3000	
Measurement locations		1 107	
Mobile road safety cameras	Buses	0*	
	Trailers	15	

* Buses were phased out during 2012

A collaboration between:



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