



ADMINISTRATIVE-LEGAL CHARACTERISTICS OF THE AVERAGE SPEED CONTROL SYSTEM IN IMPROVING THE MECHANISM OF VEHICLE SPEED LIMITATION

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Abstract. This article highlights the administrative-legal characteristics of implementing automated average speed control systems in improving mechanisms for restricting vehicle speed. The study provides a comparative legal analysis of scientific and theoretical perspectives on ensuring road traffic safety, as well as the experiences of countries such as the Netherlands, Germany, Latvia, Belarus, and Russia. The article examines the fundamental challenges within the system—the legal status of the concept of "average speed," determining the time and place of the administrative offense (the issue of jurisdiction), the presumption of innocence, and personal data protection—through the lens of scholarly opinions and judicial precedents. In conclusion, systematic proposals for integrating average speed control into national legislation are put forward.

Keywords: average speed control, administrative liability, photo and video enforcement, presumption of innocence, jurisdiction, data protection, function creep, road traffic safety.

Аннотация. В данной статье освещается административно-правовая характеристика внедрения автоматизированных систем контроля средней скорости в контексте совершенствования механизмов ограничения скорости движения транспортных средств. В исследовании проведен сравнительно-правовой анализ научно-теоретических взглядов в сфере обеспечения безопасности дорожного движения, а также опыта таких государств, как Нидерланды, Германия, Латвия, Беларусь и Россия. На основе мнений ученых и судебных precedентов проанализированы фундаментальные проблемы функционирования системы: правовой статус понятия «средняя скорость», установление места и времени совершения правонарушения (проблема подсудности/подведомственности), презумпция невиновности и вопросы защиты персональных данных. В заключении исследования выдвинуты системные предложения по интеграции контроля средней скорости в национальное законодательство.

Ключевые слова: контроль средней скорости, административная ответственность, фотовидеофиксация, презумпция невиновности, подсудность, защита данных, функциональный сдвиг, безопасность дорожного движения.

Annotatsiya. Ushbu maqolada transport vositalarining harakat tezligini cheklash mexanizmlarini takomillashtirishda avtomatlashtirilgan o'rtacha tezlik nazorati tizimlarini joriy etishning ma'muriy-huquqiy tavsifi yoritilgan. Tadqiqotda yo'l harakati xavfsizligini ta'minlash borasidagi ilmiy-nazariy qarashlar hamda Niderlandiya, Germaniya, Latviya, Belarus, Rossiya kabi davlatlarning tajribasi qiyosiy-huquqiy tahlil qilingan. Maqolada tizimdagi fundamental muammolar — "o'rtacha tezlik" tushunchasining huquqiy maqomi,

huquqbuzarlik sodir etilgan joy va vaqtni aniqlash (sudlovga tegishlilik muammosi), aybsizlik prezumpsiyasi hamda shaxsiy ma'lumotlar muhofazasi masalalari olimlarning fikrlari va sud pretsedentlari misolida tahlil qilingan. Tadqiqot yakunida o'rtacha tezlik nazoratini milliy qonunchilikka integratsiya qilish bo'yicha tizimli takliflar ilgari surilgan.

Kalit so'zlar: o'rtacha tezlik nazorati, ma'muriy javobgarlik, foto-videofiksatsiya, aybsizlik prezumpsiyasi, sudlovga tegishlilik, ma'lumotlarni muhofaza qilish, funksional siljish, yo'l harakati xavfsizligi.

Effectively managing and restricting vehicle speed currently remains one of the most critical legal and technical challenges worldwide in ensuring road traffic safety and preventing road traffic accidents (RTAs). Exceeding the speed limit is among the greatest risk factors for all RTAs, accounting for nearly 30 percent of road fatalities and 20 percent of injuries.¹ For this reason, every state implements special administrative-legal and technical instruments to ensure that drivers comply with established speed limits.

In recent decades, the widespread implementation of automated photo and video enforcement (PVE) systems has led to a sharp increase in the detection of speeding violations. As noted by Russian researcher A.V. Litvinov, more than 82 percent of all traffic violations identified today are recorded using photo and video enforcement devices.² However, traditional "spot" (instantaneous) speed measurement cameras have a specific drawback. As Belarusian scholar D.V. Kapskiy points out, drivers tend to sharply decelerate when approaching a camera and accelerate again once they pass it, creating a "kangaroo effect" (or "kangaroo jump") that negatively impacts overall road safety.³

To address this issue and ensure that drivers adhere to the designated speed limit throughout the entire road section, an average speed control system is being implemented in international practice. As British expert A. Snow points out, although average speed enforcement demonstrates high efficiency in enhancing road traffic safety and coordinating traffic flow, its implementation and the application of administrative sanctions give rise to serious legal, procedural, and constitutional challenges.⁴

Various perspectives have been advanced by international and domestic scholars in the administrative-legal and technical research of average speed control systems. In particular, Belarusian scholar D.V. Kapskiy investigated the metrological reliability of average speed enforcement systems and proved that operational efficiency directly depends on the length of the control section and the accuracy of time synchronization.⁵ In his view, even an error of a fraction of a second on short road sections can render fine calculations unjustified; therefore, he recommends extending the control zone or establishing strict metrological control over time synchronization.

Examining the societal impact of digital surveillance tools, Latvian legal scholar I. Barkane emphasizes that expanding mass surveillance systems under the pretext of road safety

1 Mayorov V.I. Prevyshenie skorosti dvizheniya... // Modern Science. – 2024. – № 1. – B. 24–27.

2 Litvinov A.V. Administrativnaya otvetstvennost za prevyshenie... // Vestnik Belgorodskogo yuridicheskogo instituta MVD Rossii. – 2024. – № 3. – B. 43–48.

3 Kapskiy D.V. Obosnovanie vybora sredstv i protsessov kontrolya skorosti... // Vestnik Polotskogo gosudarstvennogo universiteta. – 2022. – № 3. – B. 1140–1178.

4 Snow A. Automated Road Traffic Enforcement... – 110 p.

5 Kapskiy D.V.. Ko'rsatilgan asar.

infringes upon citizens' right to privacy.⁶ Dutch scholar B. Custers approaches this issue from a philosophical and legal perspective, arguing that the absolute and overly rigid enforcement of legal norms through technology may cause the legal system to lose its flexibility and impede its development.⁷ Romanian scholar D.M. Preda emphasizes that the foundation of modern administrative liability lies not in harsh punishment, but in ensuring the certainty and inevitability of legal consequences for the act. Russian legal scholars A.V. Pereladov and A.V. Sarychev sharply criticize average speed enforcement from the perspective of the rule of law and procedural legislation. According to Pereladov, the absence of a statutory definition for the concept of average speed and the impossibility of determining the precise place and time of the violation give rise to the principle of strict/objective liability and infringe upon the presumption of innocence.⁸ Sarychev points out that the control section spanning across the jurisdictions of different courts creates procedural disorder and results in a violation of the right to proper judicial venue and jurisdiction.⁹

Alternatively, legal scholars such as O.V. Sobolev and N.V. Sukhareva propose establishing a legal framework for these systems to enhance road safety, emphasizing the need to preserve human involvement in the automated sanctions system and ensure procedural safeguards for citizens.¹⁰ In her works, Sukhareva emphasizes that automated data analysis should merely serve as a tool for detecting violations, whereas the final decision must be rendered following verification by an authorized human inspector, thereby guaranteeing fair administrative practice.¹¹

The average speed control system is based on measuring the time it takes for a vehicle to traverse a designated section of the road (ranging, for instance, from several hundred meters to several kilometers). Cameras installed at the entry and exit points of the segment record the vehicle's license plate via Automatic Number Plate Recognition (ANPR) along with the exact timestamp. Based on the distance traveled and the elapsed time, the average speed is calculated using a mathematical formula. In his scientific research, D.V. Kapskiy demonstrated that the reliability of this system lies in its minimal metrological margin of error.¹²

International experience demonstrates the exceptional effectiveness of average speed control systems. As noted by I. Barkane, the pioneering "traject-controle" system introduced in the Netherlands succeeded in reducing speeding violations in monitored sections to below 1

6 Barkane I. Creeping Road Traffic Surveillance in Latvia... // Surveillance & Society. – 2023. – № 21 (4). – B. 432–446.

7 Custers B. The Right to Break the Law?... // Computer Law & Security Review. – 2023. – № 50. – B. 105857.

8 Pereladov A.V. Otvetstvennost za prevyshenie sredney skorosti... // Vestnik Kemerovskogo gosudarstvennogo universiteta. – 2020. – № 4 (4). – B. 353–364.

9 Sarychev A.V. Problemnye voprosy naznacheniya nakazaniya... // Legal Concept. – 2020. – № 19 (3). – B. 67–72.

10 Sobolev O.V. Otvetstvennost za prevyshenie sredney skorosti... // Vestnik Uralskogo yuridicheskogo instituta MVD Rossii. – 2021. – № 2. – B. 53–59.

11 Sukhareva N.V. Voprosy pravoprimeritelnoy praktiki... // Zhurnal zarubezhnogo zakonodatelstva i sravnitel'nogo pravovedeniya. – 2015. – № 4. – B. 642–650.

12 Kapskiy D.V.. Ko'satilgan asar.



percent.¹³ The "Tutor" system, deployed across thousands of kilometers of highways in Italy, has likewise served to drastically reduce road accidents and fatality rates.¹⁴

In the United Kingdom, average speed cameras helped reduce the number of people killed and seriously injured in road traffic accidents by 36.4 percent. As A. Snow notes, 80 to 82 percent of British drivers perceive these cameras "not as a punitive tool, but as a safety-oriented instrument".¹⁵

In Germany, the first average speed enforcement system was installed in 2014 on the B6 federal highway near Hanover. However, due to a lawsuit brought before German courts grounded in the driver's right to privacy, the system was temporarily deactivated because there was no initial evidence of an offense having been committed at the entry portal.¹⁶ The German experience demonstrates that the average speed system gained legal legitimacy and was relaunched only after an explicit statutory provision permitting the execution of average speed control was incorporated into the relevant police legislation.¹⁷

Despite the high safety efficiency of the system, average speed sanctions face substantial objections and legal conflicts in administrative-legal theory. As A.V. Pereladov emphasizes, the very concept of "average speed" is absent from the administrative legislation of several countries.¹⁸ Pursuant to the principle of legality and the rule of law—specifically the maxim *nulla poena sine lege* (no penalty without a law)—an individual cannot be held administratively liable for conduct that is not expressly prohibited or defined by law. According to A.V. Sarychev, while drivers are required to control their average speed, the legislation establishes neither a mechanism for maintaining and calculating average speed nor an obligation to equip vehicle speedometers with an average speed display.¹⁹

Another critical issue is determining the precise time and location where the offense was committed. Speeding is not, by its nature, a "continuing offense"; it is an instantaneous act committed at a specific location. The Supreme Court of the Russian Federation, in its Decision No. 36-AD19-3 of October 7, 2019, overturned a fine imposed for average speeding. In this ruling, the Supreme Court emphasized that an administrative penalty notice must state the exact time and place of the offense, and that designating an entire monitoring section as the locus of the infraction constitutes a procedural violation.

Furthermore, because such a road section may traverse multiple administrative-territorial units and court jurisdictions, this practice violates territorial jurisdiction rules. Automated systems generally identify and penalize the registered vehicle owner rather than the actual driver. As A.V. Pereladov highlights, this establishes an exception to the presumption of innocence, shifting the full burden of proof onto the vehicle owner to demonstrate their lack of culpability.

Personal data protection and the problem of "functional creep" (or *function creep*) also present significant concerns. As I. Barkane points out, average speed enforcement systems

13 Barkane I.. Ko'rsatilgan asar.

14 O'sha asar.

15 Snow A.. Ko'rsatilgan asar.

16 Kapskiy D.V.. Ko'rsatilgan asar.

17 O'sha asar.

18 Pereladov A.V.. Ko'rsatilgan asar.

19 Sarychev A.V.. Ko'rsatilgan asar.



indiscriminately capture and analyze the data of all road users without explicit consent. For instance, in Latvia, meteorological cameras originally deployed in 2023 to monitor traffic and weather conditions began to be repurposed to detect and fine drivers lacking compulsory third-party liability insurance (OCTA) or roadworthiness certificates, thereby intensifying public apprehension over creeping surveillance.

To effectively harness the substantial road-safety potential of average speed enforcement within a lawful and equitable framework, the following systemic legislative reforms are required:

1. Statutory Recognition and Definitional Clarity: First and foremost, the Traffic Rules must formally define the concepts of "average speed" and "average speed control zone." Correspondingly, the Code of Administrative Responsibility must be amended to include explicit provisions authorizing administrative sanctions for average speed violations.

2. Procedural Determination of Jurisdiction and Locus Delicti: To resolve jurisdictional conflicts, administrative procedural law must strictly define the procedural place of commission – specifically designating the start and end boundaries of the designated control section.

3. Implementation of Rigorous Technical and Metrological Standards: Automated photo and video systems utilized for average speed calculation must adhere to strict national standards, undergoing mandatory state metrological verification and certification.

4. Proportionality and Human Oversight: Full automation in rendering administrative penalty decisions via automated enforcement systems should be avoided. As administrative legal scholar O.A. Shevchenko notes, requiring automated citation drafts to be reviewed and validated by an authorized police officer prior to formal issuance provides essential procedural safeguards for citizens.²⁰

5. Transparency and Advance Warning: In accordance with international legal standards, average speed enforcement must operate transparently, with mandatory advance road signage installed at the entry points of control zones to adequately notify motorists, as emphasized by A.V. Litvinov.

The average speed control system represents an integral component of modern intelligent transportation infrastructure, demonstrating significantly greater efficacy in safeguarding road traffic compared to conventional point-based photo-video enforcement devices. However, its practical deployment cannot rely solely on technological capability; it requires a robust and precise administrative-legal framework. Statutory codification of the concept of average speed, procedural clarity regarding territorial jurisdiction, stringent data protection guarantees, and the retention of meaningful human oversight are essential to ensuring institutional fairness. Technological progress must never serve as a mechanism to circumvent core administrative law principles, but must instead strike a proportionate balance between safeguarding individual rights and maintaining public safety.

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