

algorithm, resulting in a 10% reduction in transportation costs.

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THE PROBLEM OF CAR ACCIDENTS IN UKRAINE AND WAYS TO PREVENT THEM

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According to the statistics of the Department of patrol police number traffic accidents (accidents) in Ukraine in just one January 2024 of the year is: total with dead and/or injured 1061 accidents in which 98 people died, and 1268 people were injured. Compared to 2023, the number of the accident decreased by 18.9% [1]. But this is still only one month. If compare 2023 with 2022, then there was a sharp leap towards increase in the number of accidents (1.3 times). In general, a decrease in the number of accidents in Ukraine in 2022 is associated with a decrease in traffic intensity during the war. At the same time, it is noted that because of the removed road signs, blackout and the appearance of artificial obstacles on the roads happened heavy accident [2].

Analyzing the statistics of accidents by causes with dead/injured from 2017 to 2023, which is given in Table 1, it can be seen that for 7 years three main reasons have not changed: exceeding the safe speed of movement, violation of maneuvering rules and violation of the rules for passing intersections.

Unfortunately, it has been possible to obtain data on accidents only since 2017, and then only with the victims, since the Patrol Police as a whole do not know how many accidents occurred in Ukraine, because some of the accidents their participants issued according to the European protocol.

Of course, to prevent accidents, scientific research is conducted, which consists mainly in analyzing the causes and providing general recommendations [3,4], approving Strategies for improving the level of road safety in Ukraine for different periods, etc. [5]. Yes, and the introduction of appropriate measures for some reason

leaves the problem of road safety is still one of the most acute.

Due to the war in Ukraine, additional danger factors appeared on the roads of Ukraine. First of all, these are checkpoints, which in most cases have already been removed. Secondly, shelling of energy infrastructure forces the whole country to save electricity - and therefore, even in the dark, street lighting is often muffled or turned off altogether. Because of this, the number of fatal accidents with pedestrians has increased. Thirdly, the number of illegal carriers has increased, especially in the border regions in the west of the country, which endanger a large number of passengers.

Excessive speed remains the number one problem in Ukraine, as it increases the risk of an accident and the severity of injuries, and therefore the likelihood of death. This applies to all road users: car drivers, pedestrians, cyclists, motorcyclists. According to WHO, reducing the average speed by 5% can reduce the number of fatal accidents by 30%.

Table 1. Statistics of road accidents in Ukraine by causes with dead/injured

The cause of the accident	Accident statistics by year						
	2017	2018	2019	2020	2021	2022	2023
Exceeding safe speed	7568	8279	8761	9999	9466	7561	9215
Violation of maneuvering rules	5201	5252	5676	5522	5022	3846	5191
Violation of traffic rules at intersections	2959	1911	2132	2352	2115	1467	2014
Violation of the rules for pedestrian crossings	1683	1602	1673	1860	1854	1443	1642
Non-observance of distance	2420	1716	1967	1445	1457	843	1148
Vehicle control while intoxicated	1819	968	1216	911	843	790	942
Pedestrian crossing in an undisclosed location	1095	1057	1102	992	877	593	781
Exceeding the set speed	608	575	576	522	558	469	642
Exit to the oncoming lane	1024	830	778	643	575	418	470
Failure of drivers to comply with the requirements of control signals	392	306	338	335	259	236	273
Unexpected exit to the carriageway	640	510	511	403	413	233	266

Violation of the rules for providing unhindered travel	469	261	264	245	247	184	290
Violation of overtaking rules	458	289	317	285	250	184	267
Failure of pedestrians to comply with the requirements of control signals	104	82	93	88	71	48	77
Traffic violations by pedestrians while intoxicated	211	110	120	54	65	47	31
Fatigue, sleep at the wheel	107	79	90	111	80	46	66
Violation of safety by passenger	45	92	79	78	95	46	84
Violation of vehicle stop and parking rules	58	54	52	60	59	44	66
Violation of passenger transportation rules	106	110	86	88	71	43	81
Control of faulty vehicle	61	82	67	64	58	39	40
Violation of railway crossing rules	74	51	54	40	38	16	13
Violation of cargo transportation rules	29	19	16	15	10	10	11
Violation of towing rules	11	6	15	13	6	7	7
Violation of the rules for the maintenance of roads and streets	21	14	21	12	14	6	5
Violation of the rules for using external light devices of the vehicle	37	21	22	11	6	5	11
Violation of traffic rules by a driver of animal	3	5	6	6	3	2	3
Violation of the rules of travel of public transport stops	14	7	11	3	3	2	4
Violation of the rules of travel of large and heavy vehicles	3	6	9	6	6	0	2
Together	27220	24294	26052	26163	24521	18628	23642

Ignoring seat belts and child seats, as well as using phones while driving are common phenomena when driving along the road network of cities.

It is known that already during the war, the work of autofixation cameras is resumed, the speed regime is controlled by police patrols with radars, roadblocks are

being ordered to increase safety and reduce traffic jams. It is scientifically proven that photo and video recording cameras are the most effective for preventing accidents and when speeding. However, currently the punishment for speeding in Ukraine is incommensurable with its consequences.

In addition, as noted by the workers of the Patrol Police, various information campaigns have been helping to prevent accidents, which for 7 years have been conducted both by their Department and by various public organizations [6]. As a result of the work, it was possible: to reduce the speed limit in the settlements of Ukraine from 60 to 50 km/h in 2017; to introduce from June 1, 2020, a system of automatic photo and video recording of traffic violations; increase fines for excessive speed in 2021; to influence the behavior of drivers who began to use seat belts more; to introduce a security audit, which is mandatory for national and international roads in Ukraine; designation of pedestrians with reflective elements - flickers, which allow drivers to be visible in the dark, etc.

But as for seat belts, the number of drivers who do not buckle up behind the wheel is still very high: from 50 to 70% depending on the city. As for the audit, all activities are more focused on the design and construction of roads in the post-war years for the reconstruction of Ukraine. It is the designers who must provide infrastructure solutions that minimize human errors and the consequences of an accident. Table 1 data shows that neither a decrease in the rated speed, nor the launch and operation of cameras, nor an increase in fines prompted drivers to comply with traffic rules.

Thus, at the last meeting of road safety experts on November 14, 2022 [6], the following steps were outlined to improve the situation on the city street and road network:

1. The introduction of the Vision Zero concept, popular in the EU countries, which consists in the inadmissibility of fatal accidents, as well as accidents with serious injuries. A systematic approach and the introduction of a number of policies, including appropriate speed limits, road safety education, infrastructure improvements for greater use of public, bicycle, light personal transport and walking.

2. Cancellation of unpunished speeding at 20 km/h, which should seriously affect traffic safety, because when an accident occurs, this speed reserve does not save from serious injuries and death.

3. The introduction of a penalty points system, which is one of the European practices that has great potential for improving road safety. Penalty points will be valid just for those traffic offenders who systematically and deliberately violate traffic rules. Such a system would provide accumulation of penalty points for systematic violations of traffic rules and the loss of a driver's license in the event of a critical number of such points.

In addition, since the beginning of 2023, the National Police of Ukraine began to massively fine pedestrians crossing the road in an unknown place, and the courts massively confirm the guilt of pedestrians for violating traffic rules. From March 1, 2023, for example, in Kharkov, it is allowed to highlight, in agreement with the Patrol Police, some pedestrian crossings. But statistics for 2023 show that this had little effect. And most importantly, all of us - road users, must realize that we are responsible for compliance with traffic rules, and the relevant authorities understand that the solution to the problem of accidents in Ukraine can only be through a set of solutions, from legislative to infrastructure.

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MODERN INFORMATION TECHNOLOGIES IN THE ORGANIZATION OF THE PROCESS OF TRANSPORTATION OF CARS IN THE UNITED STATES OF AMERICA

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The transportation of cars within the United States has undergone a significant transformation in recent years, driven by the advent of modern information technologies. These technologies have revolutionized the logistics and transportation sectors, leading to enhanced efficiency, reduced costs, improved safety, and greater customer satisfaction. This essay explores the various modern information technologies employed in the transportation of cars across the United States, examining their impact and benefits.

Introduction. The transportation of cars is a complex and multifaceted process that involves various stages, including order management, vehicle tracking, route planning, and delivery. Modern information technologies have played a crucial role in streamlining these processes, making the transportation of cars more efficient and reliable. This essay will delve into the key technologies that have transformed car transportation, such as GPS tracking, telematics, artificial intelligence (AI), blockchain, and the Internet of Things (IoT). It will also discuss the benefits and challenges