



ANALYSIS OF SAFE TRAFFIC CONDITIONS ON BUS ROUTES

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Abstract:

In this article, the results of a study conducted on the central streets of Jizzakh, where the movement of cars and public transport is mixed, as well as on the central streets of the city, show that the intensity of traffic on these streets depends on the importance of the road, the composition of the car, the condition and depending on a number of similar factors can be seen that they differ from each other. The influence of changes in the volume and composition of routes of buses on changes in the speed of movement and traffic accidents is analyzed.

Keywords: road network, bus, minibus, traffic accident, driver, pedestrian, environment, car, road, collision.

Year by year, the volume of passenger and cargo transportation is increasing. Technically advanced vehicles are required to ensure the increase in the speed of passenger and cargo transportation and the increase in the volume of transportation [1].

In addition, the growth of electrified railways poses an important question in the use of highways and electrified railway tracks, primarily in the form of passenger and cargo transportation to foreign countries by highways. proven to be effective [2].

A lot of money is spent to provide the city with modern and convenient types of transport. In order to create comfort for passengers, modern buses from Germany and South Korea, imported from the Czech Republic, and Isuzi buses produced in Samarkand are moving on the city streets. During the first quarter of this year, work worth 32,164.3 million soums was completed on the construction and reconstruction of public highways of international and state importance in the territory of our country, as well as the construction of sections of the national highway of Uzbekistan. Routes in the city provide transport connections of residential and industrial areas in the city (city) with cultural-household and sports-health organizations, railway stations, airports, bus stations, metro stations, railway platforms, wharves, etc. need



The technical condition of highways, streets, artificial structures, railway crossings, ferry crossings, their engineering equipment, construction norms and regulations, highways through which bus routes pass. The technical rules for repair and maintenance of the equipment must meet the traffic safety requirements established by other normative documents [4].

Currently, Jizzakh passenger transport associations have more than 200 buses, more than 300 passenger taxis, more than 100 Damas minibuses and serve 18 bus, 10 taxi and 10 minibus routes. . The total length of the route systems, including the length of the bus route - 350.7 km, the length of the taxi route - 94.8 km.

Now let's talk about the types of public transport, that is, buses, serving passengers in the city of Jizzakh and their functions. Because the speed of the bus depends on its type, operating conditions and many other factors, which have been studied in detail. Buses can be divided into two types according to their design: single cabin; bus trains, i.e. buses with trailers. In most cases, single cabin buses are used in practice. Combined (or semi-trailer) buses are used in routes with a large flow of passengers and are more adapted to city roads due to their maneuverability. Buses with passenger trailers are used only in rare cases from the point of view of traffic safety.

Buses are divided into five classes according to overall dimensions and standard requirements. From the point of view of bus users, the main criterion of size is the capacity of the bus cabin, that is, how many passengers it can accommodate. The task is the nominal capacity of buses of the same length according to the number of seats, that is, the indicator of how many passengers it can accommodate. According to the number of seats, the nominal capacity of buses of the same length may be different (Table 1).

According to the function, buses are divided into the following types: intra-city, suburban, inter-city, used for travel purposes, short-distance (between rural districts) for schoolchildren, intended for travel and general purpose buses. According to the state standard, city and suburban buses are included in the "City buses" group, and intercity, travel, short-distance (between rural districts) buses are included in the long-distance bus group.

According to the applicable standards for each passenger, the base area of the passenger compartment of the body should be at least 0.315 m² for each seated passenger and at least 0.2 m² for each standing passenger. . According to such norms, the mutual proportions of the seats in the layout of the bus cabin and the space for standing passengers can have different capacities.

It should be mentioned that the increase in the number of cars causes many consequences. This, in turn, creates a lack of privilege for the safe movement of public



transport vehicles on straight roads. To date, the risk has started to decrease as much as possible (traffic accidents were taken in relation to the number of people and cars). Like many other countries, the absolute number of traffic accidents has started to decrease in our republic. This was due to the improvement of roads, transport system, traffic management. Capacity of buses of various functions and lengths.

1-table

Types of buses according to their size	According to standard requirements, gauge length, m	Nominal capacity, number of places						
		For city buses			For suburban buses			For all other buses
		Number of seats	Number of places to stay	Total	Number of seats	Number of places to stay	Total	
Very small capacity	up to 5,0	10	-	10	-	-	-	10
Small capacity	6,0-7,5	18-22	10-15	28-37	20-25	5	25-30	20-25
Medium capacity	8,0-9,5	20-25	30-35	50-60	25-35	10	35-45	25-35
Large capacity	10-12,5	25-35	55-75	80-110	35-45	15	50-60	35-45
Very large capacity	16,5-24	35-45	85-100	120 and above	-	-	-	-

Redistribution of passenger transportation between public and private vehicles has been changed. With the increase in the number of private cars, the impact on roads and streets has increased. At the same time, the road conditions started to change. Finally, in the distribution of passenger transport between private and public transport, a situation has arisen that has a double impact on traffic safety in the regions. As the importance of individual transport increased, the influence of vehicles on roads began to increase. On the other hand, a significant number of passengers have switched from private transport to public transport, reducing the risks between passengers, pedestrians and vehicles.

Recent observations have shown that in some countries where public transport has increased (Sweden, USA, Japan, Moscow, etc.), the number of road traffic accidents has decreased compared to countries where private vehicles have developed. Traveling by bus in the USA is 15-20%. 300,000-350,000 people in US cities use public transport, up to 25%. From this, it can be seen that one of the issues in improving safety, reducing conflicts between pedestrians and vehicles, will help the development of public transport and roads and streets.





Cities differ from each other due to the development of the transportation system by car-taxi, which creates some difficulties in ensuring safety. The solution to this problem was the study of the movement of taxis on the main streets of Jizzakh.

The main part of public transport moves on major highways. Car taxis are observed to pick up or drop off passengers at any point on the road. Of course, this creates additional conflict situations.

Currently, traffic safety is evaluated based on the length of the public road. As a rule, the assessment is based on the number of traffic accidents or different coefficients. The point system introduced in Switzerland, Norway, Sweden, England, and the USA is evaluated taking into account the traffic conditions, the transport and operational quality of the road, and road traffic accidents on it. In addition, traffic safety indicators are taken into account.

The study of public transport shows that its good functioning reserve (the speed of notification and its safety to the surrounding people) requires the following measures: 1) Cars on the streets standing in the way of public transport; 2) Allocation of necessary special signs for public transport; 3) Equipping, rational placement of public transport stops and not disrupting the movement of passengers getting on and off; 4) Improving the regulatory system at intersections.

It is not uncommon for a public transport vehicle, such as a taxi, to destroy another vehicle, i.e. buses. An average speed for all types of public transport on each street is necessary to warn of such conflicts.

Long-term observations of street engagement and pedestrian behavior in Lithuanian cities show that the nature of street traffic disruptions is changing, although both pedestrian and traffic violators are decreasing. accidents caused by cars themselves are increasing. As a result, the issues of creating good conditions for the movement of public transport are changing, because public transport transports the main part of passengers (85-90%).

The conditions aimed at improving the movement of public transport include, in order to increase traffic safety, the allocation of separate lanes for buses, the construction of underground roads, the repair of streets, and the systematization of traffic management.

Under heavy traffic conditions, the organization of public transport traffic is understood, first of all, to create several opportunities for buses: that is, to equip them with special lanes, to show preferences in the control system, to generalize the traffic (in this case, even at the expense of the deterioration of the conditions of other types of vehicles) it makes sense); is to separate places where other vehicles cannot enter the bus lanes.



Allocating special lanes for buses will reduce the speed of vehicles on the streets. Street traffic (90% traffic for 1 hour per day) especially affects public transport, which spends most of its time at stops. The main purpose of allocating special lanes for buses is to create conditions for not spending time during traffic jams.

Special lanes on the roads pass 120-200 buses per hour during traffic, if the stops are equipped directly on the lane itself. According to A. Rimkus, based on the amount of traffic, it is necessary to pass 139 buses per hour. If 50-60 buses pass through the lanes per hour, it is necessary to move the stops. But the theoretical calculation shows that if the stop is outside the lane (the interval of movement is at least 6 seconds if the intersections are not congested, the speed of movement is 53 km/h, the distance between buses is -76 m) The capacity of the railway reaches 600 buses, which leads to 30,000 passengers per hour. The minimum load of the bus lane is 6-8 buses per hour on one side [6]. Railless public transport is manifested by several features. The attitude to the other movement is different: for the movement of the direction of the traffic flow, the movement in the opposite direction, the movement of public transport in one line is considered. By time: permanent, temporary and reversible.

In order to focus on something: taking into account the rules of traffic on special types of streets; marking with lines; letters; special brackets; special colors; dividing by arrow lines; raising the carriageway; expressed by building barriers.

By use: for the traffic of certain types of transport (buses), for mixed traffic (buses), for public transport and pedestrian traffic, for the traffic of vehicles turning to the right; for the movement of special types of buses (school, service); public service buses are divided into types (Car pool) and taxis (with or without passengers) [5].

In terms of connecting to the main road, it is divided into only the lines on the streets, the lanes leading to the train station, and the lanes leading to the big parking lot. Lanes for public transport are usually standard, i.e. 3.5-3.75 m.

The advantage of lanes for public transport is that passengers traveling in them save time. Time gain is the most important factor. Lanes reserved for public transport make it more difficult for cars to move. If the bus lanes usually occupy the far right part, not only the traffic of cars, but also the conditions at the stations and parking areas worsen.

If the problem is solved in a comprehensive way, the quality will be high, because it will be due to the separation of lanes, the equipment of the parking lot, the improvement of the information system, preferential parking places, etc.

Positive experience has been implemented in the cities of several countries. In this regard, 70 km of bus lanes were built in Edinburgh, Oporto, Budapest, Stockholm, Gothenburg, Zurich, Lille, and in Paris itself, and new ones are planned. In many



cases, the traffic of non-rail public transport increases so much that 90-95% of one lane on main streets is occupied only by it. In this case, 110-120 buses and other vehicles move in one direction per hour.

Long bus lanes are also established in big Canadian cities such as Toronto, Rochester, Dallas, Kansas City (USA). As a result of these structured measures, the speed of information increases by 10-20%, the continuity of movement increases; road traffic accidents will decrease; the number of passengers in public transport will increase due to great confidence. Special places in the rules of street traffic create good conditions. And in Germany, special places help buses.

Picking up individual passengers or small groups from sparsely populated areas and transferring them to the existing route; providing services to certain groups of the population (elderly, disabled, schoolchildren); creating good conditions in places where normal vehicles cannot drive (boulevard, exhibition, historical monuments, nature reserves).

There are also some systems for taking passengers to their destination in Russia. In rural areas, outside the city, many enterprises and construction agencies have their own means of transportation, i.e. buses, to transport schoolchildren to school and home free of charge.

In conclusion, the condition and condition of city passenger transport on the main streets of Jizzakh was determined and based on a comprehensive analysis, which was based on literature sources and internet information on foreign research.

A change in traffic flow characteristics was determined on the main streets of the city where public transport moves. Accidents related to the movement of buses and minibuses in the city of Jizzakh were analyzed. According to it, it was determined that accidents related to the participation of buses and minibuses made 8%, collisions with vehicles made 2.7%, and running over pedestrians made 5.3%.

LITERATURE

1. Q.X.Azizov. Harakat xavfsizligini tashkil etish asoslari. – T.: “Fan va texnologiya”, 2009. - 244 bet.
2. Abduraxmanov R.A., Azizov S.Z. Shahar yo’lovchi transportlarining imtiyozli harakatlanishini tadqiq qilish (Jizzax shahri misolida) // TAYI “O’zbekiston avtomobil-yo’l kompleksining dolzarb vazifalari” Respublika ilmiy-amaliy anjuman materiallari to’plami II-qism. Jizzax-2008, 165-166 bet.
3. Бабков В.Ф. Дорожные условия и безопасность движения. М.: Транспорт. 1982. - 286 с.





4. Нуруллаев, У., Умиров, И., & Исоков, Г. (2021). Методика определения деталей, критических по надежности автомобилей. *Academic research in educational sciences*, 2(5), 678-684.
5. Umirov, I., Turushev, S., & Ravshanov, F. (2021). Йўл бўлакларининг ҳаракатланиш хавфсизлигига таъсирини таҳлил қилиш. *Academic research in educational sciences*, 2(2).
6. Karimovich, A. A., & Abdugarimovich, U. B. (2021). Method of ensuring traffic safety on slippery roads.
7. Адилов, О. К., Умиров, И. И., & Абдурахманов, М. М. (2021). Анализ существующих работ, посвященных проблемам экологии автомобильного транспорта. *Вестник науки*, 2(2), 74-82.

