ANALYSIS OF THE MAIN INDICATORS OF PASSENGER, FREIGHT AND TRAIN TRANSPORTATION OF THE "J" STATION

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Abstract: This article analyzes the performance of the railway station "J" in terms of freight, passenger and train transportation in recent years. Given the location of the station on high-speed highways, special attention is paid to the issues of ensuring traffic safety of the station's employees. Currently, one of the pressing issues in railway transport is the problem of soil movement in windy areas, especially in desert areas. It is important to study the negative effects of wind on railway infrastructure and provide scientifically based solutions in this area. For this purpose, the effects of wind on the stability of rolling stock were studied.

Keywords: Freight and passenger trains, empty containers, wind gusts, wind speed, aerodynamic pressure, sand drift, obstacles, station, analysis, freight and train traffic indicators.

Station "J" is classified as a freight station and belongs to the fourth point category in the scoring category. Station "J" is connected to the two-track sections "J-Z" and "J-B" (Figure 1).

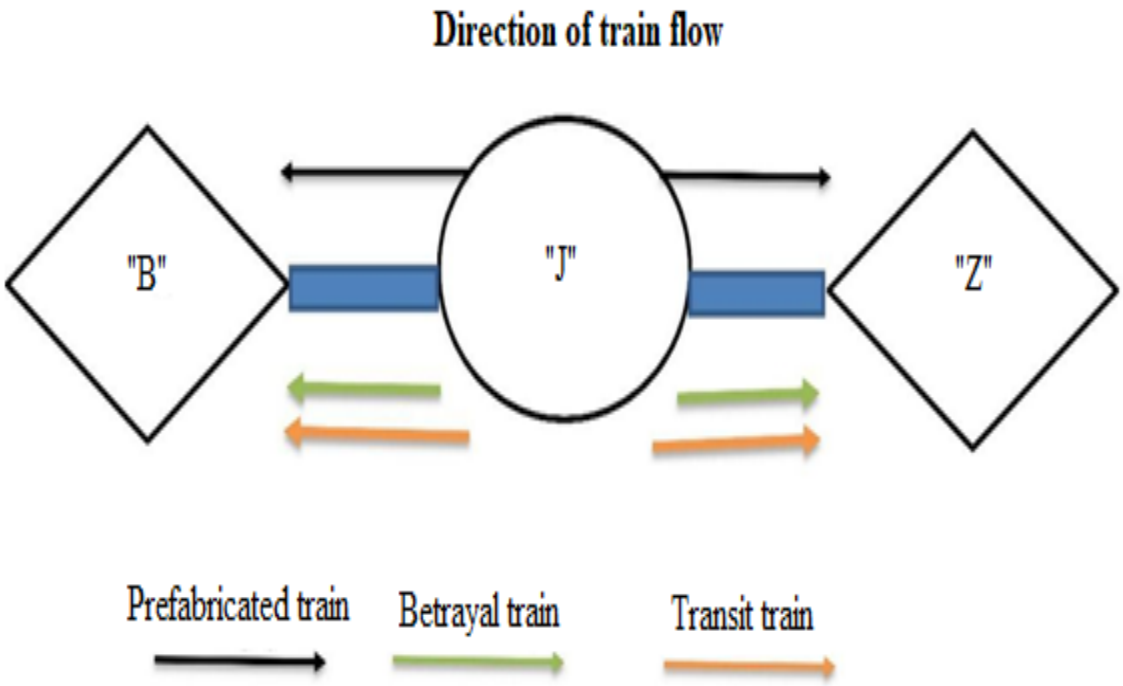

Figure 1. Location diagram of station "J"

The station consists of the following tracks:

1 track - Main. Accepts and sends even and odd passenger and freight trains and passes even and odd high-speed "Afrosiyob" electric trains;

2 - Main. Sends even and odd passenger, passenger and freight trains;

3 track - Exit;

4 track - Accepts and sends even and odd freight trains. Exit;

6 track - Accepts and sends even and odd freight trains. Exit;

9 track - Passing;

16 track - Passing track. Loading and unloading. Wagon storage;

28 track - Intercepting dead end track;

15 track-Loading;

26 track-Holding track;

27 track-Protection track.

The main and receiving and sending tracks of the “J” station are equipped with electrical insulation, and during the receiving and sending process, the station duty officers prepare a route. Train movement at the “J” station is organized on the basis of automatic blocking [1-10].

On the odd-even route:

Station “J”-Bulungur station is a two-track, two-way automatic blocking section electrified. The odd-even main track is equipped with two-way automatic blocking.

Procedure for traffic safety personnel when a train stops due to an emergency on the section: the station duty officer, after receiving information from the locomotive crew that the train has stopped due to an emergency on the section, reports to the train dispatcher and, based on his instructions, stops sending trains on this route to this section until he receives information from the neighboring station that the train has arrived in full formation or from the locomotive crew that the train has started moving. Based on the above information, it can be said that the station is located on a high-speed highway, from this point of view, all station employees are equally responsible for the safety of train traffic. An analysis of the main performance indicators of the “J” station was carried out (Table 1 and Figure 2):

Table 1

Annual performance of station “J” for 2023

Naming	1-m	2-m	3-m	4-m	5-m	6-m	7-m	8-m	9-m	10-m	11-m	12-m	otal
Freight train	65	97	10	05	20	85	01	40	87	02	98	17	237

Passenger train	50	70	35	25	17	78	47	65	52	67	27	58	791
Raised loads	10	00	20	03	17	08	12	05	07	18	02	18	520
Unloaded cargo	45	55	40	60	35	65	50	43	58	59	56	44	000
Increased v (t)	370	360	380	375	365	345	385	300	440	890	850	780	6400
Discharged v (t)	2500	2400	2600	2300	2700	2100	2900	2700	2300	2550	2450	2500	70000

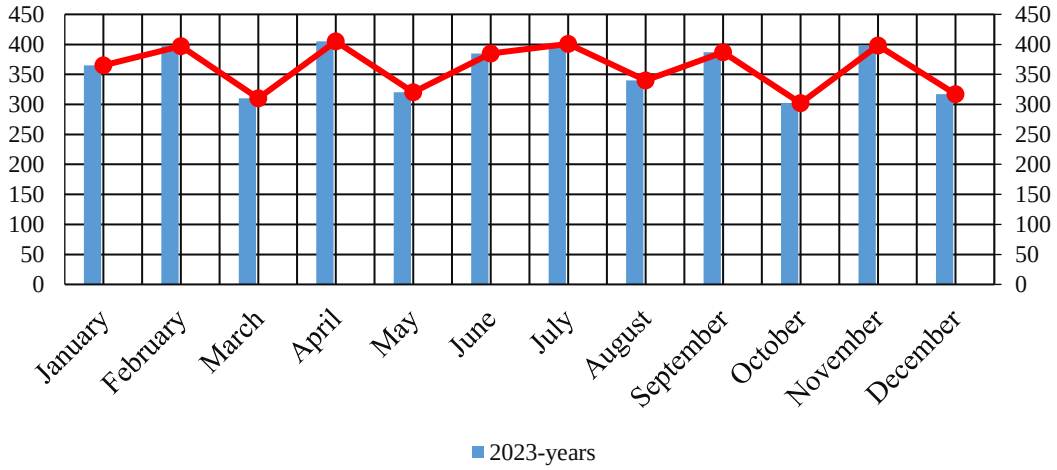

Figure 2. Analysis of the annual freight train flow of station "J" by month

The analysis of the freight train turnover of the "J" workstation shows that in January there were 365. It can be seen that in February there was an increase of 32. In March there was a decrease of 87 compared to February, and in April there was an increase of 95 compared to March. In May, our indicator decreased to 85 compared to April. In June, it increased to 65 compared to May. In July, we observe an increase of 26 compared to the previous month, in August this indicator increased to 29. In September, we observe an improvement of 47 compared to August, in October it decreased to 85 compared to the previous month, and in November it improved to 96. In December, this indicator decreased again to 81. In terms of months, the analysis results show that the highest result in 2023 was observed in April. An analysis of passenger flows served by the station was also carried out (Figure 3):

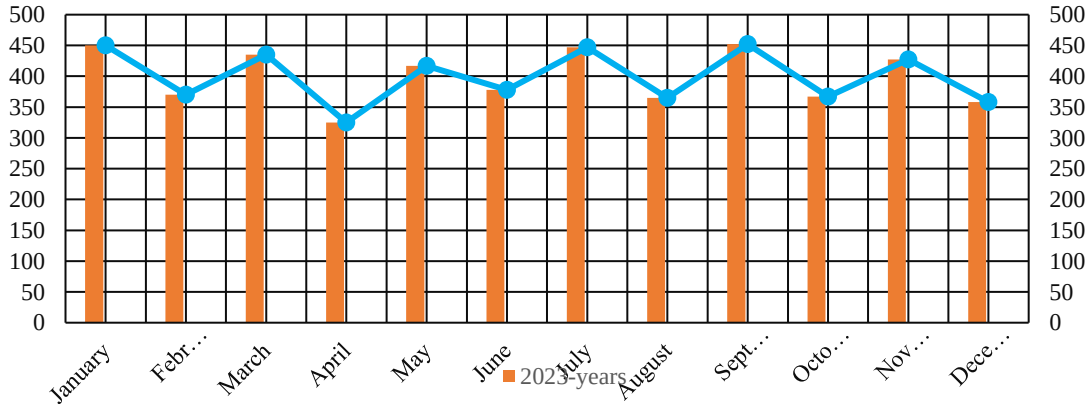

Figure 3. Annual passenger train flow of station "J" by month

The annual analysis of the passenger flow of the “J” station is 450 in January. February decreased by 80 compared to January, March increased by 65 compared to the previous month, April decreased by 110 compared to March. May increased by 55 compared to the previous month, June increased by 92 compared to the previous month. July achieved a higher result of 69 compared to the previous month. In August, we see a decrease of 39 compared to the previous month, in September we witness a decrease of 87 compared to the previous month, in October it increased by 60 compared to the previous month. In November, it decreased by 85 compared to the previous month, and in December it decreases by 60 compared to November. The analysis shows that the lowest result is observed in April, while the highest result is achieved in July.

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