

the seasonal nature of large-volume works with limited deadlines for their implementation, which determines the need for a comprehensive expansion of the role management structures. In the process of planning and managing cargo deliveries, the technical and operational indicators of vehicles (vehicles) are not fully taken into account, as a rule, the efficiency of the organization of transportation is not evaluated, and there is no systematic search for ways to increase the efficiency of the use of vehicles. Transport enterprises, as a rule, do not have a methodology for solving the problem of optimal operational management of the transportation of goods by motor vehicles. In order to assess the relationship between the parameters of the transport process and indicators of the quality of the rolling stock, a reasonable system for assessing the level of indicators of the quality of transport and forwarding operations of the transport process is necessary. To assess the efficiency of the transport process, an analysis of the factors that affect the modes of movement of the rolling stock (RM), the study of their significance in the cargo delivery system and their impact on the level of operational speed, the idle time of the rolling stock under loading and unloading, the use of mileage, the coefficient of technical readiness of the fleet is necessary, the degree of utilization of the carrying capacity of cars for different operating conditions and models.

All production processes, including transport, are planned, measured and evaluated according to the developed systems of indicators and meters. The nature of the operation of motor vehicle fleets, the specific features of the transport process, the conditions in which transport work is performed, required the creation of a system of indicators that reflect both individual elements and the entire transport process as a whole. These indicators should establish a natural connection between the elements of the transport process and the quantitative change of transport products.

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### **DELIVERY OF CARGO IN CONDITIONS OF UNEVEN PRODUCTION AND CONSUMPTION**

*D. Kalyuzhny, student*

*M. Karnaukh, PhD, Associate Professor  
State Biotechnological University*

In modern conditions, the problem of transport service for enterprises remains relevant. The requirements for the reliability and efficiency of transportation are increasing. Ring routes remain an important link in providing consumers with bulk cargo [1]. The expediency of their use is explained by the reliable transport service of enterprises. For the effective organization of the process of managing ring routes, it is necessary to have timely and accurate information about the location of rolling stock, the availability of goods from suppliers and consumers [2]. At the same time, there are much more options for possible route circulation schemes than the dispatcher can realistically analyze. Multivariation requires automation of the selection of a rational variant of the plan. This will make it possible to increase the reliability of transport connections, to achieve effective interaction between participants in the transportation process [3]. Thus, the issue of

managing cargo transportation processes is relevant and will allow making informed decisions in matters of transport service for suppliers and consumers, as well as ensuring the delivery of cargo with a minimum of costs.

Transportation by circular routes is characterized by a high degree of uneven loading and unloading intervals. The reasons that make management difficult and affect the unevenness include: uneven application submission, the complexity of the landfill structure, multiples of the length of the landfill and the length of loaded and empty routes. The unevenness characterized by the interaction of suppliers, consumers and transport is an unmanageable, disorganizing factor. It is possible to reduce the negative impact of this factor by managing the transportation process of ring routes. To manage the process, it is necessary to use a mathematical apparatus that will allow optimizing the interaction between suppliers, consumers and transport. The use of mathematical apparatus significantly increases the number of possible solutions from which the rational one is chosen. In practice, the dispatcher uses, as a rule, intuitive schemes for handling circular routes. At the same time, the number of warehouses is unreasonably large and can be reduced due to effective management based on the application of mathematical models.

In the process of the research, various statements of the transport task were considered. It was established that the existing approaches do not allow taking into account loaded and empty route flights in one calculation. As a result, there is a need for manual transfer of information between different stages of calculation of loaded and empty flights, while the structure of the test site imposes a limit on the duration of the calculation. Therefore, there is a need to use modern informatization and computer technology, which will allow to bring the solution of this problem to a qualitatively different level. At the same time, it becomes possible to adapt the mathematical apparatus to the constraints in a special way and to automate the process of building optimization models. Since in the ring version there is no need to transfer data between separate flight calculations of loaded and empty routes, better conditions are created for building an automated planning system. At the same time, opportunities appear: optimization taking into account delivery at different speeds, simultaneous optimization of transportation of various types of cargo, imposition of group and individual restrictions on transport connections and individual transportation.

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## ANALYSIS OF THE EFFICIENCY OF THE USE OF VEHICLES IN THE PERFORMANCE OF TRANSPORTATION IN INTERNATIONAL TRAFFIC

*Y. Velichko, student*

*M. Karnaukh, PhD, Associate Professor  
State Biotechnological University*

Today, the international road transport market is dynamically expanding and developing. Only those transport companies that are able to fully satisfy the needs of consumers and offer