

## The Development of Regional and Small Aviation Uzbekistan

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**Annotation:** The article deals with the development of regional and small aviation in Uzbekistan and the modernization of airports in the regions. The development of regional and small-scale aviation will expand the transport logistics and tourism potential of Uzbekistan.

**Keywords:** air transportation, regions, aviation, flights, passenger traffic.

Uzbekistan will implement a set of measures to develop transport logistics, expand external and internal routes, and improve the quality of transport services. This is provided for by the Concept of Tourism Development in 2019-2025, approved by the decree of President Shavkat Mirziyoyev "On additional measures to accelerate the development of tourism in the Republic of Uzbekistan".

The concept provides for the transformation of Uzbekistan into a major regional transport "hub" in the field of passenger transportation.

For this purpose, it is planned to expand the international geography of flights and direct flights, including to the historical cities of Uzbekistan, improve the quality and reduce the cost of air travel.

It is planned to develop transport measures to optimize transport tariffs, attract major international air carriers, organize low-cost air transportation and develop air links between the regions of Uzbekistan.

The main tasks were defined as:

- drastic improvement of the transport communication system in the republic to increase trade turnover, the number of passengers transported and investment, primarily from Europe and South-East Asia;
- accelerated solution of the issues of attracting airlines to increase the flow of zierat tourism (pilgrimage), including the opening of regular flights from Indonesia;
- identification of strategically important flight directions in order to attract tourist traffic;
- development of a flexible system of discounts and preferences for foreign carriers in order to launch new routes at the country's airports;
- increase the number of passengers on long-haul routes by creating connecting flights, including during the "off-season" period»;
- conducting negotiations with foreign and local airlines, as well as considering their proposals and rationally distributing them to airports;
- simplification of the mechanism for approving charter flights;
- implementation of the "open sky" mode in certain airports of the country;
- review of the regulatory framework to facilitate the establishment of local airlines;
- development of documents for the development of tourist transport to ensure intermodal transport within the country (bus, rail and air transport);
- reduce airline costs and optimize airline ticket prices for consumers;-
- in the number of domestic air transport routes between the regions of the country;- improving the mechanism for purchasing aviation kerosene from foreign suppliers, ensuring transparency and competition in the procurement process.

According to the results of 2013, the volume of production of general aviation aircraft (AON) increased by 5.1% in physical terms and by 21.9% in monetary terms and exceeded, respectively, 3,400 aircraft and 26 billion US dollars. The largest number of aircraft is produced in the segment of light aircraft with piston engines (27.7%), in monetary terms, the most capacious is the segment of business aircraft (79.9%). Production of aircraft with turboprop engines in 2013 amounted to 645 vehicles (19.1% of the total number of aircraft produced), which in monetary terms reached \$ 1.82 billion (6.9% of total sales).

In the long term, experts expect moderate growth in the global general aviation (small aircraft) market. The fleet of aircraft will increase by an average of 0.5% per year and by 2030 will amount to 239 thousand aircraft. The highest growth rates are projected in the business jet segment (3.5% per year, or almost 80% over 17 years, their number will reach almost 22 thousand by 2030), in the gas turbine helicopter segments (2.95% per year, 64% over 17 years, in 2030 there will be about 12 thousand helicopters with gas turbine engines in the

global fleet) and in the turboprop aircraft segment (1.7% per year, 33% over 17 years, about 13 thousand in 2030).

The global factors constraining the growth of the global general aviation market (small aircraft) analysts include:

- cyclical economic crises that reduce demand in the aviation markets;
- constant growth in the prices of new aircraft equipment, significantly outstripping the rate of inflation;
- constant increase in aviation fuel prices;
- growing costs of certification of aviation equipment;
- shortage of flight personnel.

Uzbekistan was once one of the key mechanisms for the development of the aviation industry. In the capital of the state was the Tashkent Aviation Production Association named after V. P. Chkalov. This plant in different years produced different types of aircraft at the moment, the aircraft manufactured in this plant still fly. Let's not talk about history, but let's focus on one of the extreme projects started here about the IL 114 aircraft. Serial production was supposed to be at the Tashkent Aviation Production Association named after him. Chkalov(TAPOiCH), where the capacity for the production of one hundred aircraft per year was created. In the post-Soviet period, the airlines of the CIS countries did not show much interest in the IL-114, serial production of the aircraft did not begin. Until 2012, the IL-114 was produced in small-scale at the Tashkent TAPOiCH; a total of 17 cars were built. In the factory this aircraft was moderated by the Il 114-100 series installing engines produced in Canada and installed the COLLINS flight and navigation system.

The aviation authorities of the state of Uzbekistan refused to use the IL 114-100 aircraft. Since May 1, 2018, Uzbekistan Airways has stopped operating IL-114-100 aircraft. With this justification, "in order to unify the fleet of aircraft, increase the efficiency and profitability of flights."

We will not discuss the decision we will consider the issue from a different point of view, the IL 114-100 in its flight characteristics met all international standards. According to some indicators, it had no worse or maybe better indicators than its Western counterparts.

Nowadays, there are no regular domestic flights between the regions within the republic. A few years ago, it was the IL 114-100 aircraft developed in Uzbekistan that performed regular domestic flights. This was consider a pride because not many countries in the world can afford to fly on airplanes issued in their state.

Now mostly domestic flights are carry out by so-called curved flights. This method of performing the flight creates many inconveniences for passengers. There were a lot of complaints and statements from local and foreign passengers discussed on social networks.

These curved flights are performed mainly on medium-range and long-range aircraft such as the A-320 and Boing757/767. They have a fuel consumption per passenger not so efficient in the near mainline distances. In the state of Uzbekistan, the farthest distance between the regions is 1000 km. The regions are close to each other about 150-200 km. On average, 300-400 km. At such short distances, such planes do not even have time to perform a horizontal flight (Fig. 1). Around the world, within such a distance, short-range turbo-propeller aircraft mainly fly, and it has shown its effectiveness in all mainly economic and financial indicators. The average fuel consumption on turboprop aircraft per passenger is 12 kg and on turbojet engines 22 kg. In many companies around the world, economists have calculated the use of such aircraft in short distances as the most effective.

We can take as an example any developed European countries or America, Canada, Australia, China, South Asian countries where, by the way, the tourism sector developed in these countries, turbo propeller planes of various modifications fly at short distances.

Uzbekistan is the treasures of the Great Silk Road, the azure mosques of Samarkand and the caravanserais of Bukhara, the ancient Khiva and the modern capital Tashkent and in such an attractive country, the absence of domestic regular flights does not create any comfort for arriving tourists.

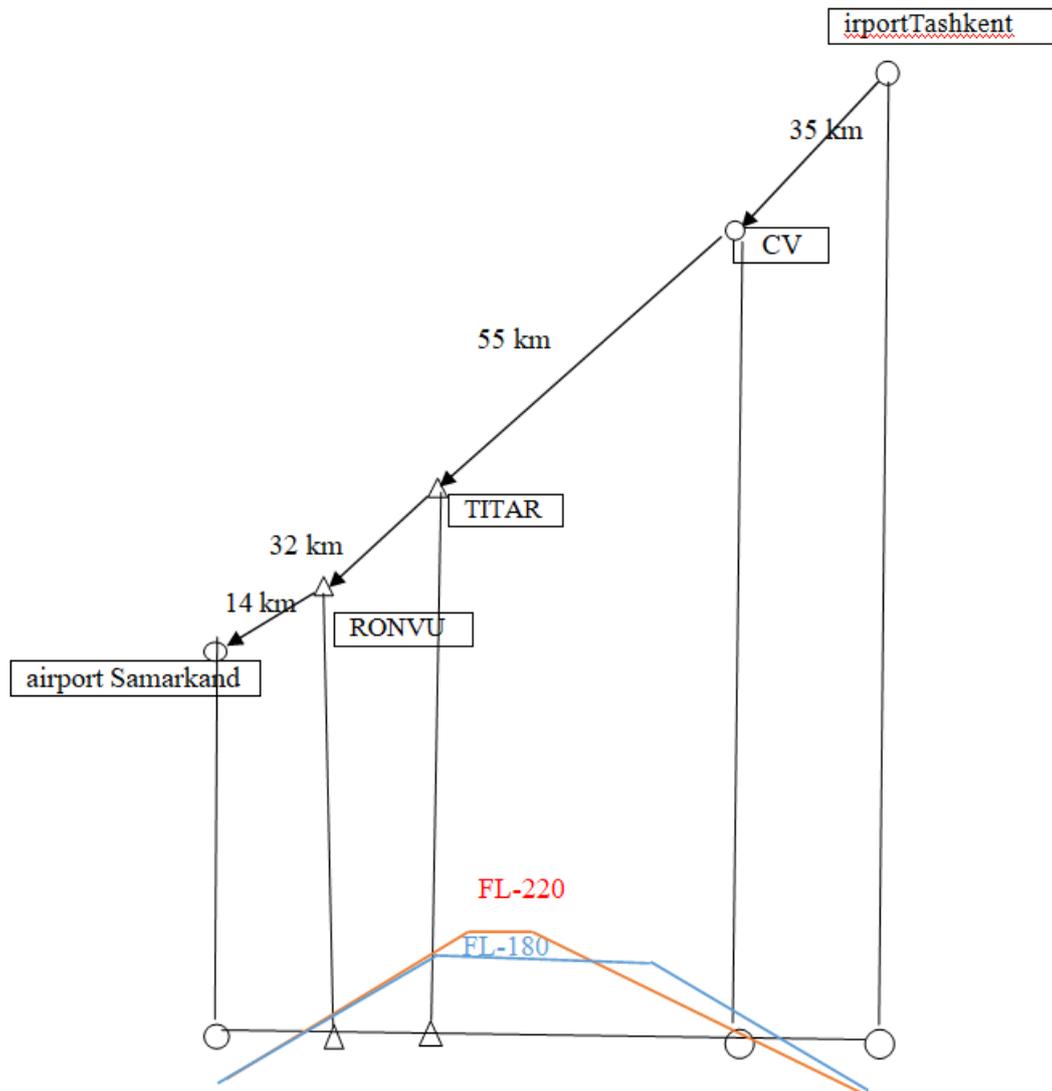


Fig. 1. Aircraft route: 1) Boeing-757-capacity 201 passengers, fuel consumption 3600 kg/h. Specific fuel consumption (g/pass.-km) 19.3; 2) IL-114-100 capacity-50 passengers, fuel consumption 650 kg/h. Specific fuel consumption (g / pass-km) 12.2.

In Uzbekistan, there is a demand for regular domestic air transportation market, but unfortunately, domestic air traffic is not developing in Uzbekistan. Domestic air transportation in Uzbekistan carried out usually in the direction of the capital.

Currently, domestic flights carry out only by transit flights between 10 airports in Uzbekistan. They carry out by the single air company of the country -Uzbekistan Airways. At the same time, the major share of these flights tied to the capital, and there is no communication between regional airports, with rare exceptions. For example, if a person wants to fly from Samarkand to Urgench, then he must fly through Tashkent. The same situation with Termez, etc. Often it looks like "hanging" in the air, first we fly back from the target, and then we return to it. There is no direct flight from Samarkand to Namangan, Ferghana, Andijan, Urgench, Nukus, Termez, Bukhara, all this is a vector of distances up to 400-550 km. As a result, many passengers forced to spend additional time and money on the additional flight itself, and he may lose even more time when transferring to a connecting flight. We are not talking about competition with Boeing and Airbus aircrafts.

Development to revitalize air travel, and a long-term plan to create a powerful aviation industry with a stable increase in passenger traffic, today not only the fate of individual sectors of the economy (aviation and tourism) depends on this decision, but also the well-being of all Uzbekistan in the long term of aviation.

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