

# Strategy of the Air Transport Development in the Dobrogea Region

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## Abstract

*Air transport in Romania is far behind in other EU countries, even if the demand for this type of transport is steadily increasing. A special situation is the air transport in the Dobrogea region, which is far behind the other regions of the country. In this paper an analysis is made of the situation of passenger transport and cargo transport in the counties of Constanta and Tulcea. In the current context of increasing demand for air transport, a number of strategies and measures are needed to develop air transport in this part of the country*

**Key words:** transport, passenger, freight, airport, development

**J.E.L. classification:** O18, R42

## 1. Introduction

Air transport in Romania had significant increases from year to year. On the one hand, the large number of Romanian citizens works abroad, especially in Western European countries using air transport, and on the other hand, the number of foreign tourists coming to Romania increased annually. Bucharest, through the international airport "Henry Coanda", is the city attracting the largest number of passengers, over 50% of the total registered annually (MT, 2015). Romania has a total of 21 airports, but 7 of the airports in the country do not have regular flights. According to the provisions of the Romanian Master Plan of Transport: "*The development of air transport infrastructure in Romania aims to provide regional centers to ensure a rapid transport to Bucharest, together with other regional centers. Air transport also aims to ensure international connectivity*".

Besides the documents of the Ministry of Transport, there are no other scientific papers on the transport situation in the Dobrogea region. The specialized literature refers vaguely to the strategies for the development of air transport in Romania, and in a single scientific article a reference is made to the development of the airport in Brasov (Tomescu et al., 2012), and in a doctoral thesis is presented strategies for the development of transport connections in the Transylvania region (Oprea, 2012).

The objective of the research is to know the situation of the Dobrogea airports and to develop a strategic model for the development of air transport in this region.

## 2. Research methodology used

The research for this paper began studying the documents issued by the Ministry of Transport, official documents of airports in Dobrogea, projects and programs of the Constanta and Tulcea County Councils. I went on to visit the three airports and gather information on the spot. After obtaining the first information and data, I studied the specialized papers published in Romania. In the last step I selected and synthesized the information and the data obtained in order to be concentrated in this paper. The methodology used consisted in systematic and consistent study of the principles governing air transport investigation and research. The research method used is the "transfer of concepts", consisting in the acquisition of programming documents (from the Ministry of Transportation), those elements important to study and then transfer in regional development.

### 3. Air Transport Infrastructure in Dobrogea

The Dobrogea region, one of the most important and rich regions of the country, is not developed from the point of view of the air transport infrastructure. In the two constituent counties, Constanta and Tulcea, there are two airports and one aerodrome. But so, they are not developed at the level that would allow the use of all the economic, tourism, and human resources of the region. The air transport infrastructure in Dobrogea currently consists of the following objectives:

a). "Mihail Kogalniceanu Constanta International Airport" is a joint stock company with state capital, based in Mihail Kogalniceanu, Constanta County, subordinated to the Ministry of Transports and administers the airport in this locality. The company was set up in accordance with the provisions of the Government Decision No. 523/1998, updated by the reorganization of the Autonomous Administration "Constanta - Mihail Kogalniceanu International Airport" (GD, 1998), (SNS, 2008). The object of the activity is the performance of services, works, exploitation, maintenance, repair, development and modernization of property in its property or concession in order to ensure the conditions for the arrival, departure and handling of aircraft in national and international traffic, the provision of airport services for the transit of persons, commodities and post and other services of national public interest. As can be seen from this brief presentation, there are not many commercial activities at the airport, I think it is not at the expected level for an airport in this important area of Romania. A very important aspect is the connections at Mihail Kogalniceanu Airport, with cities from abroad and from the country. Destinations of aircraft departing from this airport in 2018 are shown in table no. 1.

Table no. 1. International and internal connections of Mihail Kogalniceanu airport

Destination	Number of races (round-trip)		Airline	Operating period
	Day	Week		
Istanbul	2	4	Turkish Airlines	29.10.17-20.03.18
	2	4	Turkish Airlines	01.11.17-23.02.18
	2	8	Turkish Airlines	25.03.18-28.10.18
Milano	2	2	Blue Air	06.06.18-26.09.18
	2	2	Blue Air	03.06.18-30.09.18
London	2	4	Wizzair	29.10.17-21.03.18
	2	4	Wizzair	25.03.18-26.10.18
	2	4	Wizzair	26.03.18-24.10.18
Paris	2	2	Blue Air	02.06.18-29.09.18
	2	2	Blue Air	06.06.18-26.09.18
Bruxelles	2	2	Blue Air	01.06.18-14.09.18
Cluj Napoca	2	4	Blue Air	15.06.18-16.09.18
	2	2	Blue Air	01.07.18-31.08.18
Oradea	2	2	Blue Air	18.06.18-10.09.18
	2	2	Blue Air	21.06.18-13.09.18
Timisoara	2	2	Blue Air	15.06.18-14.09.18
	2	2	Blue Air	17.06.18-16.09.18
	2	2	Blue Air	18.06.18-10.09.18

Source: Author's study from S.N.S. "Mihail Kogalniceanu Constanta International Airport" SpA.

As it can be seen from Table 1, at Mihail Kogalniceanu Airport departs and lands this year, a very small number of 28 aircraft, which take back flights, operated only by 3 airlines. Equally interesting is that in the winter period, between November and March, the number of aircraft reaching Mihail Kogalniceanu is very small, that is, four aircraft connecting Constanta with Istanbul and London alone. Thus, practically the Mihail Kogalniceanu airport does not contribute to air transport, and Constanta is only theoretically on the national and international air transport map, being considered a "smaller regional" airport, as can also be seen from Figure 1.

Figure no. 1. Location and classification of airports in Romania



Source: Ministry of Transport, Master Plan of Transport of Romania

In Romania, in terms of the number of passengers crossing Mihail Kogalniceanu airport, it is ranked 10th, much behind the airports in much smaller cities, such as Bacau, Tirgu-Mures or Sibiu, according to the inscribed data in Table 2, (MT, 2015). Table 2 presents the situation of internal flights at Mihail Kogalniceanu Airport in 2017 (NIS, 2018).

Table no 2. Number of passengers registered in domestic and international traffic in 2014

AIRPORT	PASSENGERS INTERNAL	PASSENGERS INTERNATIONAL	PASSENGERS TOTAL
Constanta M.K.	360	29.076	29.436
<b>TOTAL ROMANIA</b>	<b>1.017.577</b>	<b>10.626.669</b>	<b>11.644.246</b>

Source: Ministry of Transport, Master Plan of Transport of Romania.

Table 3 shows that most passengers who took off from Mihail Kogalniceanu Airport went to Cluj-Napoca, Timisoara, Oradea and Iasi.

Table no. 3. Situation of domestic flights in 2017 at Mihail Kogalniceanu Airport

FLIGHT DESTINATION AIRPORT	REGULAR FLIGHTS			UNREGULATED FLIGHTS		
	NO. FLIGHTS	NO. PASSENGERS	GOODS (POST)	NO. FLIGHTS	NO. PASSENGERS	GOODS (POST)
Arad	-	-	-	1	1	-
Bacau	-	-	-	1	2	-
Cluj Napoca	27	2.820	-	1	2	-
Iasi	13	634	-	3	12	-
Oradea	13	1.141	-	-	-	-
Otopeni “Henri Coanda”	-	-	-	11	14	-
Suceava	-	-	-	9	10	-
Timisoara	27	2.555	-	-	-	-
Tulcea	-	-	-	2	2	-
<b>Total national transportation</b>	<b>18.267</b>	<b>1.365.522</b>	<b>174</b>	<b>837</b>	<b>4.029</b>	<b>89</b>

Source: Author’s study, N.I.S. “Carriage of passengers and goods by air in 2017”.

**b). Airport Autonomous Administration “Danube Delta” Tulcea.** Tulcea Airport is organized as an autonomous directorate, subordinated to the Tulcea County Council. The object of activity is the provision of services to passengers and aircraft (NIS, 2018). The facilities offered to passengers refer to the following: “handling” for passengers and luggage; terminal departures; arrival terminals; airfield with a capacity of 120 passengers/hour; a regrouping salon with a capacity of 40 passengers; salon V.I.P. with a capacity of 20 passengers; bar. It also offers a range of facilities for people with reduced mobility. Regarding aircraft, the airport provides: aircraft fueling, the “JET A1” (100 tons) and “AvGas100LL” aviation gasoline (capacity of 30 tons). Table 4 shows the number of passengers registered in 2014 at Tulcea airport (AADD, 2018). Table 5 shows the situation of internal flights from Tulcea airport in 2017 (NIS, 2018).

Table no. 4. Number of passengers registered in domestic and international traffic in 2014

AIRPORT	PASSENGERS INTERNAL	PASSENGERS INTERNATIONAL	PASSENGERS TOTAL
Tulcea	252	861	1.113
<b>TOTAL ROMANIA</b>	<b>1.017.577</b>	<b>10.626.669</b>	<b>11.644.246</b>

Source: Ministry of Transport, "Master Plan of Transport of Romania".

Table no. 5. Situation of internal flights at Tulcea airport in 2017

FLIGHT DESTINATION AIRPORT	REGULAR FLIGHTS			UNREGULATED FLIGHTS		
	NO. FLIGHTS	NO. PASSENGERS	GOODS (POST)	NO. FLIGHTS	NO. PASSENGERS	GOODS (POST)
Craiova	-	-	-	1	1	-
Iasi	-	-	-	1	1	-
Constanta	-	-	-	1	1	-
Otopeni "Henri Coanda"	-	-	-	2	1	-
Suceava	-	-	-	5	5	-
Timisoara	-	-	-	1	2	-
<b>Total national transportation</b>	<b>18.267</b>	<b>1.365.522</b>	<b>174</b>	<b>837</b>	<b>4.029</b>	<b>89</b>

Source: Author's study, I.N.S. "Carriage of passengers and goods by air in 2017".

As can be seen from Table no. 5, in 2017 there were no regular domestic flights, from the major cities of the country to Tulcea. The fact that official documents provide little information about this airport is relevant to understanding its lack of importance.

**c). Tuzla Airport.** Tuzla Airport, known as Tuzla Aerodrome "Alexandru Podgoreanu", from Tuzla, Constanta County, was founded in 1967, initially as a utility aviation station for sick transport missions, biological material, specialists, surveillance agricultural activity with specialists. The airport has an area of 36 hectares, 2 tracks on grass, 4 heliports, a 1200 sqm hangar, three administrative buildings, two passenger terminals, and a 200,000-liter fuel storage facility. From this airport can fly commercial and helicopter aircraft, day and night. For the night flight, there is a heliport light beacon. The airport is owned by the company "Regional Air Services", which took over it in 1998 from "Aviation Utility" S.A. (RAS, 2018). From this airport, the company provides avio-chemical services for agriculture, aerial surveillance and advertising, aerotaxi, air ambulance, recreational flights, organizes courses for obtaining the private pilot license and parachuting courses. For the flying school and the survival school at sea, the unit is equipped with a "B 732 series 300" simulator for on-board ground training, a fire simulation training and self-rescue training simulator, a flight simulator of type "FNPT II". The situation of passengers transport at Tuzla airport is presented in Table 6.

Table no. 6. Number of passengers registered in domestic and international traffic in 2014

AIRPORT	PASSENGERS INTERNAL	PASSENGERS INTERNATIONAL	PASSENGERS TOTAL
Tuzla	20.813	0	20.813
<b>TOTAL ROMANIA</b>	<b>1.017.577</b>	<b>10.626.669</b>	<b>11.644.246</b>

Source: Ministry of Transport, Master Plan of Transport of Romania.

In recent years, "Alexandru Podgoreanu" Airport in Tuzla has had a positive evolution, reaching the second place in the ranking of Romanian airports. According to official data of the "Romanian Airport Association", in 2016 and 2017, Tuzla airport ranked second, after Otopeni Airport, in the national air movement rankings (AAR, 2018). The number of movements is one of the most important units of measurement, an indicator of the current activity volume and the degree of use of the airport infrastructure. From the program documents of the Ministry of Transport, in the next period it is estimated that "the airports in the future national network in Romania will be in the four categories" (MT, 2015). Current categories considered by the Ministry of Transport are: international strategic airport, major international airport, international airport, regional international airport, small regional airport and aerodrome. Hence, it is hoped that only 4 kinds of airports will remain in Romania. From these documents we extracted the situation of the three airports in Dobrogea, as shown in Table 7. From this table it is noticed that Constanta airport has an international strategic positioning. This is due to the use of the airport by the North Atlantic Treaty Alliance (NATO). Tulcea is considered a regional airport and Tuzla is an aerodrome.

Table no. 7. Classification of Dobrogea airports

AIRPORT	CATEGORY	TRAFFIC % PERFORMED IN THE LAST TIME
1.ConstanTa	International Strategic	40 %
2.Tulcea	Small Regional	40 %
3.Tuzla	Aerodrome	50 %

Source: Ministry of Transport, Master Plan of Transport of Romania.

#### 4. Proposals on air transport development strategy in Dobrogea

From the documents studied and referred to in this paper, it results that the air transport sector in the Dobrogea region is insufficiently exploited. There is an infrastructure that can be used to develop air traffic, but the total figures are negative, indicating that the current airports are under-exploited. The evolution of the airport sector and the direct influences of air transport on airports depend on the development of airport infrastructure, which has a direct impact on the development of adjacent areas and the ecosystem. From the study of the documents about Constanta and Tulcea airports, a number of negative aspects resulted:

- They are used far below their exploitation capacity.
- The number of contracts concluded with air navigation and tourism companies is very small.
- The ministerial strategies are inconclusive, vague, do not foresee real measures to increase the activities, to develop the air infrastructure in Dobrogea.
- At county level, County Councils have no plans to develop this transport segment.
- Internet promotion is limited, the websites of the two airports have little, unattractive information, are not interactive, can not contribute to the development of air traffic.

In order to develop this transport segment in the Dobrogea region, a number of steps are required from all stakeholders. Those who can start to develop this transport segment are County Councils, Local Councils and City Halls of Constanta, Tulcea and Tuzla. They must do the following:

-To develop projects for the development of air freight and passenger transport. The first administrative entity involved should be the County Council, which establishes the general framework and makes the project. The two county councils may initiate a joint project. It then involves airports, local councils and city halls of the three localities. Other settlements in the two counties may also be attracted, which have an important place in the tourism of the seaside and Danube Delta. Also, the Chamber of Commerce of Romania can be involved in the project through its county offices. It has direct economic links with economic agents.

-To initiate the realization of ties and collaboration agreements with the tourism agencies operating on the seaside, with the tourism associations on the seaside and the Danube Delta.

-To inform the national and international aviation companies that have regular flights to and from Romania to make internal and external connections from the two airports. And they must plan their public air transport operations, as a rule, on the basis of a transport contract concluded between the airline and the passenger, the travel agency, the freight forwarder or the mail. (Iordanoaia, 2017).

-To inform the general public about the projects, connections and contracts made, air connections, attracted airlines and all the information needed to stimulate the departures and arrivals of persons from the two airports.

Local, national and international tourism agencies are the main beneficiaries of organizational measures needed to develop air traffic. They are the private economic agents who have tourism activity, the organization of trips and excursions. These private agencies have the main role:

-To seek and find tourists interested in spending the holidays on the seashore and in the Danube Delta.

-To direct the citizens of the two counties, to use the airports here, not to go to Bucharest to fly by plane.

Freight and courier companies can stimulate air transport from airports by concluding transport contracts with airlines to load goods and correspondence from the two airports.

## 5. Conclusions

In order to develop this type of transport, is important the first impetus, which may come from the County Councils of Constanta and Tulcea. They can jointly and separately develop public-private partnerships with economic agents from both counties, or from the country and abroad. For some of the air transport infrastructure development projects, European funds can be obtained. The European Regional Development Fund, the Cohesion Fund and the TEN T have been allocated around EUR 1.2 billion (the equivalent of 27% of the total amount), for airport technology investments and multimodal connections (for air traffic management infrastructure and airport-to-city connections) (ECA, 2014). Currently, European funds can be obtained from "Priority Axis 2 - Developing a Multimodal, Quality, Sustainable and Efficient Transport System" through "Specific Objective 2.3 - Increasing the Sustainable Use of Airports" (AGSFT, 2017). Just letting "demand" influence development, it is the rate of years of development. As the air traffic develops, the county and local authorities can initiate an additional project to build an airport in Mangalia. This would complete a complete cycle of air transport development and development in Dobrogea, with three airports and one aerodrome.

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