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ABSTRACT

The purpose of this article is to outline the idea of using former military airfield in Biała Podlaska to create a modern logistics centre. Firstly it presents theoretical ideas behind the logistics centres. Further on it describes the characteristics of the existing infrastructural conditions around the former military airfield in Biała Podlaska. Towards the end it identifies the reasons for locating a modern Logistical Centre for the transport of air cargo at the airfield of Biała Podlaska, in Southern Podlasie within the II Pan-European Transport Corridor belt. This argument is supported by: appropriate technical infrastructure, valuable space for investment, the lack of this type of logistical organization in this part of Podlasie, qualified staff and beneficial direction of transport operations. This project is supported by the local authorities.

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INTRODUCTION

Logistical centres are important part of the modern logistical system of each country. In the spatially separated area there is a specialized logisti-

cal infrastructure related to: receiving, storage, distribution and issuing of goods and the accompanying services. For such a centre to be created there must be an access ensured to at least two modes of transport and the logistical operations are not merely associated with the work on the handling of goods. One could say that the bond is being created here for economic entities carrying out procedures for cargo handling and creation of conditions for growth of value-added logistical services. There are various types of economic entities functioning here belonging both to the sphere of production, trade and specialized services. In all, the logistical centres create conditions for establishing permanent combined transport links¹. This reduces transport costs, shortens the time of delivery of freight shipments and increases the work comfort of the logistical operators themselves.

In Southern Podlasie, in the vicinity of Biała Podlaska, there is an ex-military airfield. It has an appropriate technical infrastructure, access to the rail and road routes, space for building expansion, specialist staff and the favourable attitude of the local authorities to create a modern logistical centre. In this region of the country there is no such type of organizational unit, favouring logistical services.

The purpose of this article is to outline the idea of using former military airfield in Biała Podlaska to create on its basis a modern logistical centre. The basic research method here is an analysis and evaluation as well as studying subject literature. The material for the relevant scientific inquiry here are both: books, articles, internal documents and internet sources. The material consists of three interconnected points. They talk about the theory of the creation of logistical centers, the conditions that exist currently on the former military airfield and the concept of the transposition of this infrastructure into a modern logistical center. The article takes on the essential elements of this concept, ignores certainly a lot of details, but it is worthy of study by both the local authorities, logistical entities of the studied area and potential investors. Thus, it is original, creative and touches important local solutions to be implemented.

1. The idea of logistical centres - an outline of the theory

The subject literature talks about the point elements of the logistical infrastructure acting as the logistical networks nodes that form the basic

¹ A. Kuśmińska-Fijałkowska, Z. Łukasik, *The Land Trans-Shipping Terminal in Processes Flow Stream Individuals Intermodal Transportation*, "TransNav: International Journal on Marine Navigation and Safety of Sea Transportation", vol. 5/2011, p. 395-400.

fabric of logistical systems. The fundamental nodes include mainly logistical centres, as the nodes of the highest functionality from the point of view of the possessed logistic and technical infrastructure, including infrastructure enabling choice of the transport solution with regard to the branch structure of transport, the choice of transport means, packaging, and creation of transport-forwarding chains².

In the most general definition the logistical centre is an "independent economic entity, which provides logistical services and by that performs functions of supply and distribution in a specific area"³. A certain clarification may be here M. Krzyzanowski's statement that logistical centre is a place where at least two carriers operate being guided by common rules in the field of construction and the use of transport and handling equipment, storage in the context of the optimum economic criterion. These carriers operate together, or independently, taking into account the pre-established rules of conduct and to combine short haul transport with the long haul one and to provide comprehensive logistical services⁴. Summing up, the logistical center is in practice an innovative approach to achieve the objectives in the field of: logistics, regional economy, environmental policy⁵ as well as the transport one.

The logistical centres **carry out logistical services including**: receiving, storage, collection and issuing goods together with additional services, which are provided by independent and also specialized operators. Of course, this type of centre is an independent economic entity, possessing a separate area, associated with⁶:

- linear infrastructure (roads, sea and inland waterwas),
- point infrastructure (storage yards, terminals and airports),
- transport means,
- appropriate personnel and organization,

² I. Fechner, *Centra logistyczne i ich rola w procesach przepływu ładunków w systemie logistycznym Polski*, "Prace Naukowe Politechniki Warszawskiej. Transport" 2010, vol. 76, p. 21.

³ J. Fijałkowski, *Wybrane zagadnienia projektowania centrów logistycznych w Polsce*, "Logistyka" 2001, no 1, p. 7.

⁴ M. Mindur (ed.), *Logistyka. Infrastruktura techniczna na świecie. Zarys teorii i praktyki*, ITEPIB, Warszawa-Radom 2008, p. 74.

⁵ M. Antoniak, E. Chylak, R. Mańkowski, *Centra logistyczne*, Wydawnictwo WSC, Warszawa 2004, p. 11.

⁶ S. Marysiuk, *Infrastruktura logistyczna w transporcie*, Wydawnictwo Politechniki Śląskiej, Gliwice 2010, p. 258.

- the right IT equipment and that providing logistics services in the field of: cargo transport, cargo handling, storage and warehousing, collecting cargo,
- location,
- type of users,
- function,
- economic purpose,
- modernity of the facility,
- scope of activities.

The logistical centre together with the infrastructure and the organization is called the Integrated Logistical Centre (ILC)⁷. The set of elements of the logistical centre creates a logistical system, whose structure and size depend on the logistical task realized or assumed.

The range of services offered by logistical centres creates an extensive and constantly expanding catalogue of activities related to the handling and reliable operation of the entire supply chain and providing any other standard logistical services.

The logistical centre carries out its logistical services by⁸:

- customer relationship management, whose main goal is to get to know the main customers and customer groups; in the area of the employees of the logistical centre together with the customer are looking for the ways to best meet changing needs; the current level of customer satisfaction can be assessed by analyzing the services provided;
- customer service management, which provides logistical centre customers a unique information about the real-time dispatch of the products, the current state of the products (including their location and quantity) and the date of the receipt of the product, etc.;
- implementation of the customer orders; logistical centre is trying to enlarge the implementation indicator of the orders placed by customers; the key problem is the orders implementation optimization process and optimization of the total logistical costs for the customer as well as the integration of this process with the entire supply chain;

⁷ J. Brdulak, B. Zakrzewski, *Efektywność centrum logistycznego na Południowym Podlasiu*. *Monografia*, Instytut Transportu Samochodowego, Warszawa 2013, p. 86.

⁸ B. Skowron-Grabowska, *Centra logistyczne w łańcuchach dostaw*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2010, p. 73.

- designing structure of the logistical network; the customers allocation and logistical centre strategy is determined by several factors affecting the operation of logistical networks, including the costs of storage, transportation and deliveries;
- supplies management; transported products intended for further processing are stored according to a specific policy, which affects many parameters to be optimized;
- transport management; the task is to organize the transport schedules, fleet management and optimization of the frequency of shipments and the selection of transport routes;
- returns management; improving productivity at the returns points is possible through effective management of the return of products, their storage and transport and intent for their re-use.

To sum up, the logistical centres are important elements of the logistical network, they are the nodes which combine supply chains, flows of goods and information streams.

In the subject literature and logistical practice there has been **a series of criteria created for the classification of logistical centres**. Their basis may be the appropriate classification of logistical centres (Table 1).

| Functioning range | Range of services provided | Property type |
|-------------------|----------------------------|----------------|
| international | universal | public-private |
| regional | specialist | private |
| local | industry | |

TABLE 1. BASIC DIVISION OF LOGISTICAL CENTRES

Source: I. Fechner, *Centra logistyczne. Cel – Realizacja – Przyszłość*, Biblioteka Logistyka, Poznań 2004, p. 17.

The most commonly used criterion for the classification of logistical centres is their functioning range of impact, with:

- international logistical centres functioning range of about 500 kilometers;
- regional logistical centres functioning range of about 50-80 kilometers;
- local logistical centres functioning range of approx. 5-8 km.

Another division covers aspects of economic purpose, of which there are three types⁹:

- logistical centres that make up the public infrastructure;
- logistical centres harmonizing serving large urban-industrial agglomerations, city logistics. The purpose of this logistical centre is to reduce traffic in city centres, while maintaining constant level of supplies to neighboring large commercial units. In order for the logistical centres of the city logistics type, to be able to fulfill their task, they should be located near large cities;
- logistics serving international trade. This function is met by the logistical centres located in seaports and in the inland terminals, which are located at the border crossings. These logistical centres are created within the development of modern seaports, which through the logistic port platforms become logistical services distribution centres and affect the economic growth and development of the regions;
- logistical centres that cater for the economic entities' own needs. With the introduction of the logistical management concept (supply chain management), industrial or commercial entities can determine the course of logistical processes and estimate the costs of the various stages of these processes, which creates the conditions for the review of decisions concerning the location, structure and organization of their own logistical centres;
- logistical centres, which provide services commissioned by logistical operators 3PL (third party logistics). The owners of such logistical infrastructure should be operators, who can benefit from it in accordance with the principles of the rental or lease, and can provide services in facilities that are owned by industrial and commercial enterprises.

The primary **function** which is carried out by logistical centres, should be to offer logistical services to the entities cooperating with them. Another important task is to keep the technical readiness of transport infrastructure and the storage and the park of the horizontal and vertical transport equipment leased in accordance with the needs of the clients. The logistical centres offer also economic and legal advice, running the bank of information concerning: the size of the structure of orders, inventory levels, the free warehouse space and systematic transmission

⁹ W. Paprocki, J. Pieriegud, *Rozwój centrów logistycznych w Polsce*, "Eurologistics" 2003, no 5, p. 52-57.

of this information through the computer network for each link in the logistical system and the providing social and accommodation services and customs ones.

The logistical centre as a service provider must take into account the objectives of the supply chain entities catered for, maximize the profit of its clients and assist clients in increasing the value added. Hence the logistical services and management carried out by the centre should be tailored to the logistical processes, needs and the management of the entire supply chain. The basic functions of the logistical centre are services directly related to the creation and maintenance of supply chains. They are created by: the cargo flow organization, control and maintaining the set inventories, brokerage in transport services - contracts related to the flow of goods, the flow of goods documentation and advice on the selection of routes and the means of transport. Another group are complementary functions associated with indirect or direct services in the sphere of handling of goods on the way from supplier to the customer. Such services include: cargo handling organization (execution), warehousing services to the full extent, completion, testing the quality of goods, estimating their value, loss estimates, processing - mainly simple assembly (installation, mixing) and maintenance of technical measures, including supplies in consumables and hotel and catering services. In addition to the basic functions performed by the logistical centres, many of them offer a number of auxiliary functions, such as: preliminary processing of materials, packaging, which produces transport units and warehouses, repair services and accepting returns and complaints and cleaning packages.

In the process of constructing logistical centres an essential element is their **location**. For example, according to A. Kengpol, selecting location of the logistical centre should be preceded by a large variety of analyzes¹⁰. The basic principles of site selection are inseparably associated with planning activities. Planning the logistical centre is connected with carrying out a number of analyzes such as, among the others: demand analysis, decision analysis, location analysis or feasibility study. Methods of planning logistical centres include: planning procedures, planning techniques and the analysis and evaluation criteria. The process of selecting the location of logistical centre is made up of most of the planning elements. It is

¹⁰ A. Kengpol, *Design of a decision support system to evaluate the investment in a new distribution centre*, "International Journal of Production Economics" 2004, no 90, p. 60.

also closing of the decision-making stage. In practice, there is no identical criteria for the site selection and one scheme, one should hold on to constructing logistical centres. This is due to the nature of the initiative, which can be commercial or public, and whether the public sector is actively involved in initiating and implementing the process of building a logistical centre, among the others by the public - private partnership¹¹. The local government units are increasingly choosing to work with business on the principles of public - private partnership. In the case of logistical centres the advantage, and in consequence, the own contribution can be possessing the property. In practice, it is important that the logistical centre was located within the range of major international or local transport corridor, and that such an object used different types of transport branches. It should be added that the process of construction of such a centre is a capital-intensive and long-lasting.

In Poland, **particularly important**, logistical centres include: Silesian Logistical Centre in Gliwice, Centre for Logistics - Investment Poznań, Wielkopolska Logistical Centre Konin - Old Town, two separate centers of international character in Gdansk and Gdynia, the regional centre Mszczonów and the International Euroterminal Slavkov Logistical Centre. It must be mentioned that several others are planned or are at the conceptual stage (Szczecin, Rzeszów, Kraków, Opole).

The information given should be considered as starting materials for further characterization in this paper.

2. Characteristics of the existing infrastructure conditions around the airfield in Biała Podlaska

The beginnings of the airfield in Biala Podlaska go back to the pre-II world war years of the II Polish Republic (September 1924). The its most successful times for the functioning of the military airfield were the 80s of the twentieth century, when the training flights took place almost daily. After the fall of communism and the Polish accession to NATO the airfield lost its importance as being located just on the eastern border of the pact. In 2002 the closure of the military base at the airfield and the transfer of land to the Military Property Agency took place. In 2009 under the Act of 10 July 2008 amending the act on the management of certain

¹¹ J. Kaźmierski, *Logistyka a rozwój regionu*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009, p. 142.

assets of the Treasury and on the Military Property Agency and amending certain other acts (J. of L. No. 144, item. 901), the grounds of the previously closed to traffic airfield were transferred to the City of Biała Podlaska in the form of donation. In 2010 the company Biała Airport sp. z o.o. (Previously Cargo Hub Warszawa - Biała sp. z o.o.) won the tender, under which the lease agreement was signed of the airfield for a period of 35 years. Then, in 2011. the leaseholder opened the airstrip under Civil Aviation Authority number - 69. As of May 2011 began a period of the use by the General Aviation and the airfield was managed by the company Biała Airport Company sp. z o.o.¹² On March 28, 2013 the then City Mayor Andrzej Czapski terminated the lease agreement of the airfield by the company Biała Airport. The management of the facility was taken over by Biała Housing Department. On the 1 September 2015 by the decision of the mayor of Biała Podlaska the airfield was transferred to the custody of the Department of Ownership Supervision Office of the City.

For several years, it has been proposed to organize in the Southern Podlasie multi-element modern logistical centre¹³. This is because of the transit character of the location of this geographical region with the convenient distribution of the transport infrastructure - this region combines the road, rail (with a wide track railway extended from the area of Belarus to Free Zone in Małaszewicze), and the pipeline and shipment transport. The complementary element of multimodal logistical centre in Małaszewicze could be post-military cargo airfield in Biała Podlaska, whose technical infrastructure still remains unused. The Biała Podlaska magistrate under the leadership of mayor Dariusz Stefaniuk following the "recovery" of the leased former military airfield, at the moment, has no idea for its use. Currently, the airfield operates as an airstrip and this does not go beyond the activities of the Aero Club. Thus, the airport does not meet its statutory and actual function because, as the name suggests it should hold regular flights (passenger or cargo) even on a small scale. The

¹² Analiza koncepcji zagospodarowania i wykorzystania byłego lotniska wojskowego w Białej Podlaskiej w celu wzmocnienia oferty inwestycyjnej Makroregionu Polski Wschodniej, Zadanie zrealizowane w ramach projektu "Tworzenie i rozwój sieci współpracy centrów obsługi inwestora" współfinansowanego ze środków Europejskiego Funduszu Rozwoju Regionalnego w ramach Programu Operacyjnego Rozwój Polski Wschodniej, Lublin, 7 March 2013.

¹³ A. Kengpol, *Design of a decision support system to evaluate the investment in a new distribution centre*, "International Journal of Production Economics" 2004, no 90, p. 60.

situation is not helped in this regard also by the competition in the form of Lublin airport 120 km away from Biała Podlaska, which now supports approx. 30 thousand passengers a month (but does not support, however, the cargo transports). The map of the airports availability in Poland shows clearly, however, that the airport in Biala Podlaska could, on the limited scale, handle the passenger traffic since the time accessibility of the most of the inhabitants of Southern Podlasie to the nearest airport in Warsaw or Lublin amounts to more than 2 hours.

The Eastern Poland when it comes to transportation investments is still under-resourced. The development of logistical infrastructure in the Eastern Poland and the vicinity of the Pan-European Transport Corridor No. II, is halted by the lack, among the others, of the A2 motorway stretch from Warsaw to Terespol¹⁴. Meanwhile, Polish road and rail carriers are facing growing competition in Belarus. The government of Belarus has a plan to earn money on a logistic service of the European imports from China and to capture haulage market from Europe to the East mainly to the countries of the Customs Union. In Belarus, at the major border road crossings, for several years there have been built customs logistics warehouses. Thus, modern logistical centres are built at the Polish Eastern border on the Belarusian side, and not the Polish one¹⁵.

The Chinese money pays for the giant multi-modal logistical centre "Great Stone" being created in Belarus, near Minsk. Together with infrastructure and housing facilities will be 91.5 sq. km. It is to provide work for more than one hundred thousand people. "Belarus is ready to become one of the platforms on the Eurasian route" - said in May last year, President Alexander Lukashenka in an interview with Xinhua agency on the occasion of the visit by the President of China Xi Jinping¹⁶.

New Silk Road (NSR) forms the backbone of foreign and internal policies of Beijing. Its essence is to increase exports of goods originating from different provinces; including those less economically developed. NSR entered the implementation phase, and the Chinese authorities, above all, seek to resolve the problems related to its financing. Therefore, in 2013,

¹⁴ B. Zakrzewski, Paneuropejski korytarz komunikacyjny nr 2 a potencjał rozwojowy gmin Mazowsza, "Logistyka" no 4/2015, p. 8544-8551.

¹⁵ B. Zakrzewski, *Centra logistyczne na Podlasiu*, "Przewoźnik", vol. 45, no 6/2015, p. 40-42.

¹⁶ P. Stefaniak, Nowy Jedwabny Szlak - renesans po chińsku, "Nowy Przemysł", 23 April 2016.

they established the Silk Road Fund with a capital of \$ 40 billion. But the most important financial pillar of the entire concept is to become, just created, the Asian Infrastructure Investment Bank (AIIB) with a capital of \$ 100 billion. Admittance to it has been reported by 57 countries, among them Poland. Money for the realization of goals related to NSR flows by rapid and ever-wider stream. Western shippers have long tested the railway connections between China and Western Europe. They concluded that keeping them on routes of up 9-12 thousand km is unprofitable¹⁷. Especially that the trains were carrying loads only in one direction. Now the situation has changed, however, thanks to the fact that part of the costs have now pledged to cover Chinese partners. They surely would not have done this, if there had been no **plans for the New Silk Road**. The route would be shortened, saved time and money, by the reactivation of the ex-military airport in Biała Podlaska. Air transport is the fastest, though the weight of the freight carried is certainly less than by rail or sea.

The Airport in Bila Podlaska is equipped with two runways, one of the longest in Poland, with the possibility of full operation:

- main runway 3300 × 60 m,
- reserve runway $2,260 \times 30$ m,
- landing strips, taxiways and parking areas,
- round the clock security,
- area of over 70 hectares for the development of facilities for, passenger and transport services with independent access,
- underground tanks to store more than 5 million litres of fuel,
- separate railway siding ensuring direct access to the border.

Currently, the airfield in Biała Podlaska has the status of an airstrip (ICAO: EPBP). The strip was created in 2011 on the ex-military airfield. It is listed in the records of the airstrips of the Civil Aviation Authority and has an asphalt runway with a length of 2300 meters.

According to the findings of the Local Spatial Development Plan of the City of Biała Podlaska **the property can perform the following functions**:

- function of the airport,
- function of production,
- warehouses and storage, wholesale, commercial services, recreational green areas.

The land price is approx. 50 PLN / m²

¹⁷ Ibidem.

As far as the infrastructure is concerned the media available are:

- Electricity: Available voltage of 0,4 kV, available power of 250 kVA, 400 kVA, telephone;
- And the, media available in the neighborhood:
- Gas connection point located on the Sidorska street 555 meters from the area border. The medium pressure pipe is located there. The calorific value of 39,5 MJ / Nm^3 , pipe diameter 160 mm, available volume: 1000 Nm^3 / h,
- water-main connection is located on the Żwirki i Wigury street and on Dokudowska street. The distance between connections ranges from 100 to 500 m. Available capacity: 3500 m³/24h.
- sewers connections are located on the streets: Łomaska, Dokudowska and Gruntowa at a distance of 100 meters from the area border. The available volume: $3000 \text{ m}^3 / 24h$, no limit on sewers discharge.

The city of Biała Podlaska can make this ground available for investments in the form of lease or sale by tender. The airfield-air strip in Biała Podlaska is located in a convenient location at the distance of 4 km from the international route E30, 1 km from the railway station, approx. 120 km from the international Lublin airport.

3. Towards a new logistical centre based on the airfield in Biała Podlaska

The lack of ground transportation network and airports deficit indicates the need for development, activation or construction of airports in the so-called "Eastern wall" of Poland (especially in Podlasie), both to operate scheduled air transport and general aviation. The expected increase in demand for air services will contribute to local initiatives undertaken especially in order to develop and create local or regional airports. Airports are among the objects, in which an increased supply of services creates additional demand by stimulating the social and economic activity. Thus they play an important role in the economic development of the region and the country, being the catalysts for growth. This especially applies to creating jobs, increasing the mobility of the population and the attractiveness of the given region of the country to investors and tourists. The role of regional airports will increase with the increase in the value of time, because the proximity of the airport significantly reduces travel time from place of departure to the destination, which is of great importance particularly in the business travel.

Ultimately, the network of airports in Poland needs to be completed. The analysis of the gravitation areas of the currently operating airports, in the absence of the developed ground transportation infrastructure, appears to show the need for creating at least 2 regional airports, one of which must be located in the Lublin province. It makes sense especially to use the existing airport in Biała Podlaska.

There are several possibilities of using the airport in Biała Podlaska. The most serious of these is the chance **to use the airport in Biała Pod-laska as one of the elements of the Logistical Centre (LC)**. Southern Podlasie region is the perfect place to create a modern LC, in which could come into contact the modes of road, rail and air transport. Airport in Biała Podlaska after appropriate modernization and infrastructure investments could, in its function take over part of the high-grade general cargo (at the beginning on the regional scale, but in the future, maybe even international one) and complementary functions enriching the offer of services of the logistical centre in the future (e.g. high-grade shipments).

The creation of LC is associated with the location, on a separate part of airport premises, of the transport, logistical, forwarding companies engaged in the carriage of cargo and goods abroad, e.g. to the Far East and back, from the East to the European Union – in another words, the elements of a logistical centre. This would include transportation of certain goods, e.g. processed food, computer components, technologically advanced products and even precious stones. Such transport to Biała Podlaska could be done by air and further by trucks to the remaining EU countries and beyond the eastern border, or vice versa.

The airport in Biała Podlaska could also be used for:

- transport of domestic passengers. In 17 municipalities and 2 cities of Biała Podlaska Administrative Region lives the population of 114,4 thousand. The airports they can use today are in Warsaw or Lublin;
- transport of passengers from Belarus. Poland is a country of the European Union and Belarus will in time be integrating with the rest of Europe. Proximity to the airport in Biała Podlaska would give the inhabitants of the nearby, after all, Brest on the Bug opportunity to travel to the rest of the European Union. The arport in Biała Podlaska would therefore become an interchange airport for 313 thousand residents of Brest on the Bug. It might, for example, be within the framework of the Polish-Ukrainian-Belarusian co-operation in Bug Euroregion. In Brest

there are universities as well as in the Biała Podlaska. Together with the population of the Administrative Region it gives to about half a million people the ability to move quickly into other areas of Poland and Europe. Polish airports have 11 permanent and 9 additional border crossings. One of the additional border crossings is located at the airport in Biała Podlaska - EPBP- Biała Podlaska;

- the development of economic cooperation mainly with Chinese companies. The discussed geographical location has for many years been carefully observed also by the partners from China, Taiwan, South Korea. Local authorities are involved in a number of meetings with foreign investors interested in investments, among the others, from: the Czech Republic, the Holland, Portugal, Span. The interest of the Chinese in the investments in our country is high. Delegations of several companies made study trips on the Polish East in search of attractive business locations¹⁸;
- developing the idea of cooperation with the Chinese firms the airport could contribute to the creation of distribution centre for goods, merchandise and components in Poland and other countries (EU), close to the eastern border of the European Union. For some time, the Chinese investors have wanted to enter the European market. Poland, as well as the region of Biała Podlaska would be a good place for the location of, e.g. a factory of Chinese cars. Components and parts can be brought by train to Małaszewicze or selected valuable components by air to the airport in Biała Podlaska. If the idea of exports to the West fell through, the Chinese cars could be exported to Russia, Kazakhstan, Belarus and Ukraine.
- transport of air cargo. Southern Podlasie is regarded as an area with development potential, however, is impeded by several basic barriers. Among the most important of them mentioned are long customs clearance processes for the merchendise. The impediment is also a lack of convenient intermodal connections of the Polish railway ports with the transport network points of Poland and Europe. The inclusion of the airport in Biała Podlaska as a part of the Logistial Centre in Małaszewicze, where there is a Free Zone and intermodal terminals, would provide a chances for their appropriate use;

¹⁸ B. Zakrzewski, Centra logistyczne na Podlasiu, "Przewoźnik", vol. 45, no 6/2015, p. 40-42.

- organization of training flights. Polish and foreign airline pilots of large aircraft, but also small and light planes must make every year, a precise number of training flights. The airport in Biała Podlaska would give them a base to carry out such flights. In 2008 Poland received an offer from the Chinese side which proposed \$ 1 million to train one pilot. The scale of the project consisted of approx. 100 Chinese pilots per year¹⁹. Poland's flying training still has the great reputation in the world and so do Polish flying instructors;
- air taxi flights and charter air traffic. More and more large international companies use in its activities business aircraft so the role of trips conducted by air taxis increases. This type of flights could be offered by the airport in Biała Podlaska especially if the Logistical Centre was established. In this case, one could also take into account annual horse auctions in the stud farm of Janów Podlaski. If the airport was functioning the potential buyers would have convenient transport there and back, by air taxis. Similar auctions could indeed be held at least a few times a year to that such transport was regular;
- utilization of existing nearby underground fuel tanks to create a reserve of raw materials for the whole country. Large fuel tanks (several hundred thousand tons) in the vicinity of the airport in Biała Podlaska would be a great place to hold such a reserve fuel.

The ex-military airport in Biala Podlaska as a public utility airstrip could also contribute to:

- handling air ambulance flights. Air Rescue Service (LPR) as an independent public health care organization under the Minister of Health performs in the Polish health care system tasks in the field of emergency medical and ambulance services;
- handling flight operations of the border guards and police aviation as part of Public Order Aviation Services (LSPP), which has been operating since 1996 and includes: Police, Border Guard, Fire Brigade Aviation and Civil Services Aviation. Pilots can perform, among the others, such activities as dropping medical supplies, rescue actions, patrols, destroying ice jams on the river, fire-fighting, as well as mass events protection from the air;

¹⁹ J. Brdulak, B. Zakrzewski, *Efektywność centrum logistycznego na Południowym Podlasiu*. *Monografia*, Instytut Transportu Samochodowego, Warszawa 2013, p. 86.

- firefighting aviation flights associated with patrolling and extinguishing forest fires. During natural disasters the tasks similar to LSPP can also be performed by firefighting helicopters. Firefighting flights are primarily associated with patrolling and extinguishing forest fires (especially in the summer);
- conducting business outside the aviation, e.g. organizing mass events. Their handling is associated with very popular in Poland and abroad annual air shows organized e.g. in Góraszka and Radom. On the airfield in Biała Podlaska it is certainly possible to organize such mass events;
- this is an opportunity also to organize commercial car rallies or motorcycle racing on an isolated part of the airfield (which are sometimes already organized there anyway).

Arguments for resumption of the airport activities in Biała Podlaska, are , among the others:

- possibility to fully resume airports operations within a few months;
- the existing air border crossing point No. 918;
- relatively low costs of adapting the existing infrastructure to the appropriate category of the future airport;
- the possibility to locate at the airport the sub-zone of the Pomeranian Special Economic Zone, extension and possibly creating the subzone of the Free Zone in Małaszewicze;
- employment opportunities at the airport of the former military personnel living in Biała Podlaska and the surrounding areas;
- the airport could become part of multi-segment LC. This would allow the development of a regional communication system using a combination of three modes of transport: road - railway - air, and in the future may even be pipeline and shipment transport;
- part of the airport infrastructure could still remain a convenient base for the organization of mass events (concerts, car rallies, etc.).

Airport in Biala Podlaska, however, requires constant supervision and maintenance and above all quick conceptual, organizational and investment decisions of the state and local authorities and especially potential investors. Without them, there is a risk that a huge potential of the airport in Biała Podlaska will be wasted.

Summary

The possibilities presented are only opportunities undoubtedly requiring time and money. At this stage the hard organic work is needed from all the people who have at heart the good of the region to manage to initially organize the air strip in Biała Podlaska, which over time could utilize one of the solutions presented. The presented material shows both theoretical and practical elements related to the concept of the establishing modern logistical centre based on the former military airfield in Biała Podlaska. The issue discussed showed many elements of: organizational, technical, legal, administrative and economic nature. Nevertheless, they are all perfectly manageable if there is a good will and determination of the local authorities, investors and logistical entities to create this type of new logistical hub in Podlasie. With all the certainty we say that there is a need to build such a centre – as all infrastructural conditions warrant that. All that is needed is to appoint a coordinator of the project. This means that the enthusiasm and determination to act must be demonstrated. The local market, logistical operators and local government can benefit from this. It can certainly be part of the grout to stimulate socio-economic situation in the region. So it is worth to persue this subject in detail and expand the number of people supporters of this idea. The matter is, as we have tried to present, quite urgent and important, hence the need for action. We also believe that the content contained here may serve as a stimulus for further studies in this area. Thus, we can claim that the purpose of the article has been successfully achieved.

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