U.S. TRADE AND DEVELOPMENT AGENCY

EXECUTIVE SUMMARY

FINAL AIR CARGO AIRPORT FEASIBILITY STUDY AND INVESTMENT PROGRAM REPORT

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1. EXECUTIVE SUMMARY AND RECOMMENDATIONS

1.0 Summary of Findings and Recommendations

An air cargo/multimodal cargo facility at Tuzla International Airport (TIA) will be feasible and financially viable provided the Government of Bosnia and Herzegovina (BiH) at the Federation and Canton level undertake specific policy, legal and regulatory steps while working to attract private sector participation. International air cargo operators are willing to open service to Tuzla, provided Canton and Airport officials attract an international manufacturing or processing company with foreign trade shipping requirements to serve as an "anchor " client to provide a base level of demand for air cargo service. Two U.S.-based international developers of transportation facilities have expressed some interest in opportunities presented by this Tuzla project.

Creating a private-sector-oriented Free Trade Zone/Export Processing Zone (FTZ/EPZ), which will require modifications to, or exemptions from, current law is critical to the success of the proposed facility, according to potential private-sector developers and investors. In addition, several local companies have expressed interest in operating the facility, and others as serving as "anchor clients." However, local companies alone will have difficulty securing the appropriate financing without an international partner. We have worked with Government officials at all levels to help them facilitate developing the appropriate legal and regulatory environment.

1.1 Introduction

The objective of this study is to consider the validity of developing a multimodal air cargo hub at TIA as a privately financed venture, and to develop an investment plan that includes an investigation of sources of financing, as well as engaging Government staff at the Federation and Canton level to facilitate the policy changes that would attract users to the TIA multimodal air cargo project.

The Berger Team's findings and recommendations reflect extensive research and fieldwork over the past two years. We have examined the physical layout of the airport and found ample space for a sizeable air cargo/export processing center, and developed a possible physical development plan. We have met with local businesses and understand the local business situation and the current business environment. The Team has met with senior Government officials of Tuzla Canton and the Federation and developed a set of policy recommendations. In this Final Report, we incorporate the results of our efforts to help the Federation and Canton Governments to facilitate the recommended policy changes.

Team members have surveyed air cargo companies, including DHL, Federal Express, Emery Worldwide, KLM Cargo, Luflhansa Cargo, MALEV Air Cargo, and others. The Teanr has also inter-viewed a number of potential equity investors, including Aviation Facilities Company (AFCO), and ProLogis, that are both distribution and air cargo facility developers. Their input has been invaluable in shaping our Study. In order to consider available sources of financing, team members have met with and surveyed the appropriate staff at the European Investment Bank (EIB) the European Bank for Reconstruction and Development (EBRD), the World Bank Group (including the International Finance Corporation-IFC, the International Development Agency-IDA, and the Multilateral Insurance Guarantee Agency-MIGA) and the U.S. Overseas Private Investment Corporation (OPIC).

In this Study**,** we present strategies, specific financing options, recommendations for policy changes, and other actions that will assist the Airport authority, Tuzla Canton officials, and officials in the national Government shape the business environment so that investors can be attracted to develop cargo facilities at TIA. We also report on our activities to assist the Government to facilitate the needed policy reforms. The ongoing nature of the strife in region has raised the perception of risk for some investors. We present strategies where potential investors can use a World Bank Group guarantee facility or a U.S. Government guarantee facility to mitigate the perceived "political risk factors."

1.2 Current Conditions at TIA

Tuzla is in northeastern BiH, and is part of the Federation, or Moslem and Croat-controlled entity of the country (see Map next page). Tuzla International Airport's primary airfield includes a 2,845 meter runway that recently received a concrete overlay. It has a parallel taxiway 15 meters wide with five connecting taxiways. The strip can accommodate a 747 aircraft. Civilian use of the airport is governed by SFOR, the international peacekeeping force, as is all airspace in BiH. Ownership and civilian operations are under the aegis of the Government of Tuzla Canton through the TIA Airport Authority.

TIA serves SFOR as Eagle Base, and has military structures including warehouses, navigational aids, and protected structures for parked aircraft. There is a small modem passenger terminal (110 passenger/hr. peakload capacity). There are no civilian air cargo facilities at present.

Since early 1999 there has been sporadic charter service to Zagreb and destinations in Germany. Currently there is a weekly charter flight to Zagreb and Frankfurt. Some air cargo is shipped in the bellies of these chartered aircraft.

1.3 Potential Market for Air Cargo Facility

There could be a substantial volume of air cargo traffic moving through an established air cargo facility at TIA, with the appropriate policy reforms, regional economic development initiatives, regional stability, along with foreign and domestic private-sector activity. The Berger Team developed three sets of forecasts of air cargo movements though TIA depending on future economic and policy developments. These forecasts, as does all the analysis, have a ten-year horizon.

Under the "most likely" forecast scenario, 28,000 metric tons of airfreight, worth $400 million, are forecast to be moving through the TIA air cargo facility during the fourth year of the facility's operation. By the ninth year, this forecast has 45,000 metric tons moving through the facility, worth about $800 million. If the Tuzla Canton's economy is to be the driving force behind the air cargo carried, goods will include scientific and electronic equipment, high-fashion apparel, jewelry and fine watches, high-end furniture and wood handicrafts, fine tools, and photographic equipment. There is also potential to airfreight fresh poultry to Middle-Eastern markets where birds processed according to the Moslem rules (as done in Tuzla) are in high demand.

The relationship to Brcko port, in BiH on the Sava river, also needs to be considered in looking at the market for the multimodal processing zone at TIA. For example, raw textile fibers can come in by barge at Brcko, be trucked to processing facilities in the TIA FTZ/EPZ, made into high-fashion items and sent by air freight to meet the latest fashion demands in Europe. Brcko port provides access to the Danube's barge network to

Europe and the Black Sea countries. Brcko is only about 20 kilometers from Tuzla.

Based on interviews we conducted, air cargo service providers such as DHL and MALEV Air Cargo are willing to provide service to Tuzla on very short notice. DHL is already considering providing limited air cargo service to Tuzla to meet the airfreight needs of SFOR. This current level of demand for air cargo services is too low to justify a sizeable air cargo facility. MALEV and other carriers are willing to provide air cargo services at Tuzla as soon as they can see sufficient demand to move air cargo through Tuzla (see Appendix 8 for letters of interest). With the right mix of policy reforms and private sector development, and under the Berger Team's most likely cargo forecasts, more than sufficient demand for air cargo service will be generated. With the right legal, regulatory and development policies in place, the Tuzla facility could become a regional growth pole, attracting new economic development due to its superior business environment.

Service Area and Competitive Airports: After construction of the transportation infrastructure improvements we recommend, the effective service area of cargo operations at TIA will be influenced by lesser logistics constraints than is the case today. Since truck driver shifts are 8 hours long, TIA will be competing with Banja Luka and Sarajevo for one day pick-up/delivery by truck. For two day pick-up delivery cycles, the competing service area includes Banja Luka, Sarajevo, Ljubljana, Zagreb, and Belgrade; Skopje is too far for road deliveries.

All these airports are within 1.5 hours flying time from each other; this means that location will not by itself be a determining factor for airlines or air cargo operations seeking a cargo processing or an export processing facility. Other factors, such as fees, customs controls, operating costs, and relative quality of the facilities, will play a larger role in firms' location decisions.

1.4 Physical Description of the Project

Construction Requirements:. The Berger Team recommends an investment program totaling$15 million over ten years, exclusive of discounting or financing costs. The cargo terminals would be built as a series of individual modules, each including a 2,304 in 2 structure plus required truck docks, airside staging areas, utilities, and service roadways. The "most likely" air cargo forecast scenario will require construction of three cargo terminal modules. (See Figure 1.1 for a typical layout). Site preparation, environmental impact assessment and mitigation costs, and related start-up fees are included in the cost of the first module. The first module, including site preparation, would cost $3.3 million in the first year. A second module costing $1.6 million will be required in the project's fourth year, and the third module, costing about the same, is required in the project's seventh year. The proposed facilities would be adequate through the first ten years of the facility's operation. In practice, the timing of the construction of new cargo terminal modules will be determined by the preferences of the operator and "anchor" manufacturing or processing client. For this analysis, we assumed that modules would be built in the year before they are needed.

Total capital costs including site preparation, construction of the terminals, environmental mitigation, cargo loading/unloading equipment, and allocated shares of a new radar system and safety improvements, would be $4.8 million/7.7 million DM in the first year, $2.1 million/3.4 million DM in the second year, and $2.1 million/3.4 million DM in the seventh year.

Airside Improvements: The operation of Tuzla International Airport for passenger and cargo after the departure of SFOR will require improvements to the Air Traffic Control Tower and a new radar system. The equipment required to provide for safe operations is estimated to cost approximately $850,000/1.4 million DM. In addition, a runway overlay, estimated to cost $6 million/9.6 million DM would be needed in the eighth year of the project.

Environmental Effects

The project has limited environmental effects. Mitigation to compensate for wetland impacts can be accomplished on-site. In addition, it must be determined whether a valuable aquifer lies under the site; if necessary, it can be protected with simple, low-cost measures.

Required Transportation Infrastructure Improvements: If Tuzla International Airport is to operate as an air cargo/multimodal. cargo center, transportation infrastructure connecting Tuzla with the rest of Europe must be repaired and upgraded to ensure that cargo can move quickly and reliably. Specifically:

Roads: Construction of roadways from Tuzla International Airport to the City of Tuzla and to the Doboj junction with the proposed M-1 7 expressway are the most critical improvements needed to link the cargo facilities with a service hinterland. Upgrading the road to the port of Brcko is also required.

Rail: Rehabilitation of trackage to the Port of Brcko and to the European rail junction at Vinkovci, Croatia, are the next highest priority transportation improvements.

1.5 Required Policy Reforms

In order for the Tuzla cargo facility to be an effective catalyst for economic development, the following changes in the policy and regulatory environment are necessary and recommended:

To be financially viable, development of Tuzla International Airport air cargo facility must include a Free Trade Zone/Export Processing Zone (FTZ/EPZ). A Free Trade Zone is an area where firms are granted exemptions from tariffs, duties, costly bureaucratic delays, labor laws, and other impediments to private enterprise. Virtually all FTZ's are also Export Processing Zones (EPZ's), where goods are processed without trade or other restrictions. In this Study, we provide a review of over ten FTZ/EPZ's around the world so that Canton and Federation staff can see what types of policies and business environments must be developed for these zones to be successful.

Substantial revisions are required to make the current BiH Law on Free Zones more compatible with investors' requirements, and to lower the risks perceived by potential investors. Failing revising the law, the BiH Government would have to make analogous exemptions from the law for the Tuzla FTZ/EPZ, but revising the law will have a better effect on investor confidence. To further increase investor confidence in the local business environment, we recommend creating a Federation or national-level Free Zones Public Authority. Then, have the Authority **enforce** the laws equally on all free zones in the country.

Policy reforms must include **substantial customs** reforms, allowing Tuzla to serve as an air cargo transit center for other airports in the region, including: Sarajevo, Mostar, Ihaci and Banja Luka, BiH;

Ljubljana, Slovenia; Zagreb and Osijek, Croatia; Belgrade, Yugoslavia; and, Skopje, Macedonia.

Businesses using the Tuzla FTZ/EPZ must have free access, i.e., without fees, when crossing inter entity boundaries, to the port at Brcko on the Sava river and thence to the Danube to benefit from barge traffic to Europe and the Black Sea. This type of arrangement is allowed by current law on Free Zones, but such movement is not currently permitted.

1.6 Recommended Financial Structure

We use the most likely air cargo forecast scenario to illustrate the outcome for each of the following financing options: (1) public ownership and operation financed by a BiH-guaranteed concessional loan from the International Development Agency of the World Bank Group, (2) public ownership with a private operator leasing the facility, financed by a BiH-guaranteed concessional loan from the International Development Agency of the World Bank group, (3) a Build Own Operate (BOO) or an Build Operate Transfer (BOT) with IFC financing or EBRD financing (they offer the same terms), (4) a BOO or BOT with EBRD or 1FC financing with a MIGA risk guarantee package, (5) a BOO or BOT with EIB financing, (6) a BOO or BOT with EBRD or IFC financing combined with an OPIC political risk guarantee, and (7) a BOO or BOT with OPIC financing and with an OPIC political risk guarantee.

The Berger Team also reviewed airport fee structures at 14 airports in Europe, and, depending on which financial institution and operator strategy is selected, recommend a fee structure for the cargo aircraft using the FTZ/EPZ at TIA for each financing option. This recommended fee structure is the most competitive with regional airports while enabling the operator of the facility or the Canton (if the Canton chooses to operate the facility) a reasonable rate of return-an internal rate of return in excess of 20 percent.

Based on our own assessment of the credit market in Bosnia, and after discussions with analysts at Thompson Financial Bankwatch, a multinational corporation that rates both commercial banks and the risks associated with sovereign debt, we believe it is not viable at this time to get a private commercial bank to finance a project of this type in BiH. Thus, we do not present a purely commercial financing option. Thompson Financial Bankwatch rates over 1,000 commercial banks and more than 80 countries.

Based on our analysis, the most competitive air cargo fee structure consistent with the efficiencies gained from having a private-sector operator, we recommend BOO or BOT with either EBRD or IFC financing and full MIGA risk insurance. This combination, we believe, offers the greatest opportunity for success.

Because the Berger Team assumes that TIA will develop as a cargo-dominated airport at least in the near term, we assumed that the concessionaire will be responsible for paying for three-quarters of the navigational equipment of the airport, all of the construction of the aprons and cargo terminals, purchase of the cargo handling equipment, runway maintenance, rent to the Canton and profit taxes (after a 5-year holiday). In return, the concessionaire will earn air landing fees, parking fees and cargo handling fees paid by the air cargo aircraft operators and the shippers of goods through the FTZ/EPZ. Given a number of assumptions described in the Study, this will involve an investment of $12.6 million by the concessionaire in net present value terms for the first ten years of operation. The Canton will collect over $2 million in rental income in net present value terms over the ten-year horizon, while the concessionaire will earn an internal rate of return in excess of 20 percent. Net income to the concessionaire would exceed $1.7 million in net present value terms over ten years. Again in net present value terms, the concessionaire will pay over $600,000 in profit taxes to the Government.

Both the EBRD and the IFC have identical terms available to finance this type of project. Neither institution will give exact final terms until all aspects of the project, including the amount of private participation, is thoroughly reviewed and agreed upon. Private-sector participation is required in a project of this nature. A private investor would build, own and operate the facility (BOO) or build, operate, and transfer (BOT) the facility with a long term lease agreement, of 40 to 50 years.

Aside from debt financing, both the IFC and the EBRD engage in equity financing in BiH. We do not assume that either institution would do this for the purposes of the Feasibility Study, but Canton officials should pursue their participation because the minimum equity that would be required is in excess of $3 million over the ten year horizon. In present value terms, this comes to about $2.5 million. Both institutions often collaborate on projects, helping private investors assemble debt, equity, and guarantees against political risk.

Both the IFC and EBRD charge an appraisal fee of I percent of the loan and a front-end fee of 1 percent of the loan. In BiH, for this type of project, each would charge LIBOR plus 4 percent. Both offer the same loan terms, 8 years, with 2 years grace.

Potential equity investors we contacted are most concerned with the political stability of the region. For that reason, we recommend that MIGA insurance be included in the financing package. MIGA offers four types of risk insurance, coverage against: (currency) transfer restrictions, expropriation, breach of contract, and war and civil disturbance. The coverage does not protect against currency devaluation. MIGA is preferred over OPIC because OPIC does not offer transfer restrictions for projects in BiH at this time.

MIGA's terms in BiH are 2.4 percent per year for covered equity and 1.8 percent per year for covered debt. The results of purchasing full coverage of equity and debt from MIGA in the context of an EBRD/IFC financing arrangement show Tuzla FTZ/EPZ to be attractive under the most likely air cargo forecasts. The initial landing, parking, and cargo handling fees proposed by the Canton are not competitive with other airports in Europe. We propose that the landing fee be set at 55 percent of what the Canton proposes, and other fees at 50 percent of what the Canton proposes. This still means the concessionaire will earn an internal rate of return above 20 percent. With our proposed fee structure, a 757-20OF can land and park for two days for $1,862. Cargo handling for 20 tons would cost $308. This is extremely competitive with 14 international airports in the region and in Europe generally.

1.7 Impact of Building the Air Cargo Facility at Tuzla on U.S. Exports

A new radar system at an estimated cost of $ 4 million will be required by the airport. For each air cargo module built, about $500,000 in moveable equipment will be required. Since the forecasts call for between 2 and 4 modules, this represents $ 1,000,000 to $2,000,000 in equipment sales. U.S. companies, identified in the main body of the Study, are highly competitive in supplying all of the equipment noted above. Thus, building the Tuzla FTZ/EPZ represents $5 million to $7 million in direct US. export potential. The operation of the facility will also stimulate trade with the region and the rest of the world. This will also increase U.S. exports by at least 5 percent of the value of the cargo moving through the airport annually. For the fourth year of operation, this would mean an increase in U.S. exports of $1.2 million under the most likely forecast.

1.8 Recommended Implementation Steps

In order to bring the air cargo/multimodal cargo facilities into service as quickly as possible, a number of conditions have to be met to assure investors of a stable regulatory context and reliable transportation services. To this end, the following actions should be implemented in the order suggested below:

1.Develop and implement a ten year economic development plan including the improvement of transportation infrastructure in Tuzla Canton.

2. Modify the Law on Free Zones to make an FTZ/EPZ at Tuzla International Airport a more financially attractive place for private-sector manufactures, processors, and their cargo handlers. Government officials at all levels were, in general, very responsive to our suggested changes.

3. Continue developing and implementing a marketing program for the air cargo/multimodal cargo terminal and FTZ/EPZ program. **This is critical to the success of the facility.** The air cargo strategy must be focused on attracting an international manufacturing or processing corporation as an anchor tenant by offering very favorable financial terms. The major international freight carriers do not generally make equity investments in airport cargo facilities, unless the airport is to serve as a regional hub (for example, MALEV Air Cargo in Budapest for all of Europe, and UPS in Cologne for all of Europe).

4. Determine whether the Canton or a private operator will construct and/or operate the air cargo/multimodal cargo facility at Tuzla International Airport. Early contact with representatives from the International Development Agency (IDA), the EBRD, the IFC and MIGA is strongly recommended. While we recommend use or either the IFC or the EBRD (or both combined), an IDA loan secures the best possible terms and also would give a very good chance of success to the FTZ/EPZ. However, we know it may be impossible to secure an IDA loan, so that is why we recommend pursuing EBRD/IFC involvement. EBRD and IFC are also providers of equity, and Canton officials should try to secure their equity as well as debt participation. This is especially important given how reluctant potential private equity investors are willing to evaluate a potential project in rural Bosnia and Herzegovina. We recommend the Canton Government closely coordinate with these lending institutions all through the process of developing the Tuzla FTZ/EPZ.

5. Use this Study as a basis to finalize the Airport Master Plan including the sites for the air cargo/multimodal cargo facilities and for the FTZ/EPZ. Alternatively, use this Study to create the cargo facility at TIA as a sub-zone of the existing Free Zone Lukavac in Tuzla Canton. This could reduce the administrative work to establish a separate Zone under BiH, Federation, and Canton law.

6. Secure funding and training for civilian operation of the Airpow and related air traffic control activities.

7. Secure funding and construct the Dubrave Road improvements, upgrade the roadway from the airport to Tuzla, and from Tuzla to Doboj. In addition, the railroad track to Brcko needs to be rehabilitated and a road built between that port and the airport.

8. Using this Study, prepare a final feasibility study and submit it to Republic's Authority for Foreign Economic Relations for approval as a Free Zone or sub-Zone as required under current law. Alternatively, work with Free Zone Lukavac; to create the cargo

9. Issue Terms of Reference (TOR) for creation of the Zone or sub-Zone at the airport. Negotiate with the successful bidder to implement the Zone or sub-Zone.

10. Issue Terms of Reference (TOR) for construction and/or operation of the air cargo/multimodal cargo facility. Negotiate with the successful bidder to start operations.