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CROATIAN AIR TRAFFIC IN THE INTEGRATION PROCESS OF THE COUNTRIES OF 21ST CENTURY EUROPE

ABSTRACT

The paper analyses the guidelines regarding air traffic development in Croatia within the context of integration processes of the European countries, which has been articulated by the EATCHIP and EATMS project as a unique European air traffic management. The positive projection of the development is based on the re-integration of the international air routes (overflights) with the Croatian interests from the geotrafic aspect mostly overlapping with the interests of Slovenia and Bosnia and Herzegovina. As conclusion, a concept of common strategies of these countries is suggested, in requiring the operationalisation of air corridors in this part of Europe.

KEY WORDS

air traffic in Croatia, EATCHIP and EATMS projects, common traffic strategy, Croatia and Bosnia and Herzegovina

1. INTRODUCTION

At the beginning of the 90s the airspace of Europe was marked by a great number of national air traffic systems of various institutional and technical concepts, which increased even more by the breakup of the former USSR and Yugoslavia¹. Simultaneously with the intensification of air traffic, which had an annual growth rate of over 5% at the European level, congestion of air routes, greater delays and implicitly also the exploitation safety aspect became pressing issues.

Therefore, the 1990 ECAC Ministers' Meeting in Paris, adopted the action programme strategy on co-ordination and integration of air traffic control system (ATC operatives) in Europe.

Croatia was at that time involved in defending her vital national interests in a war that was imposed on her and in the process of establishing the constitutional order in the occupied territory.

During war in Croatia, and then also in Bosnia and Herzegovina, the international air traffic (overflights)

were for safety reasons, re-directed to the airspace of neighbouring countries, mainly Hungary and Italy.

Reintegration of Croatia into the system of international air traffic flows i.e. reactivation of the existing overflight corridors in the Croatian airspace is most closely related to the co-operation with the Yugoslav Air Traffic Control Authority, and active participation of Croatia in ECAC and EUROCONTROL² projects, and primarily in the integration programme EATCHIP, i.e. more widely, in the EATMS³ project.

2. CONCEPTUAL GUIDELINES OF AIR TRAFFIC DEVELOPMENT IN CROATIA

The air traffic development strategy in Croatia includes the basic items: infrastructure (airports, flight control system, fleet), administrative and organisational structure, as well as standardisation and personnel structure and potential.

Due to her geo-traffic position, Croatia is a potentially important transit area, since air corridors through this region represent the shortest routes connecting Western Europe and the Near and Far East. The existing air traffic routes network and solid infrastructure provide a positive basis for air traffic development. The problems, however, appear in the administrative and organisational operative and inertia in harmonising the aviation regulations with the Chicago convention as well as with the European system of JAA⁴ standardisation.

Apart from direct material damage caused by the war on airport objects and equipment as well as communication, navigation and surveillance system, in her process of gaining independence, Croatia encountered also a general disorder in the aviation regulation. Because of centralised character of the aviation administration and inferior position of Croatia within the air traffic system of the former state, the tasks of the newly established aviation management and Air

Traffic Control Authority of Croatia were additionally burdened in the process of planning and development. By becoming a member of ICAO (1992), ECAC (1992) and EUROCONTROL (1997), Croatia also accepted the obligations of harmonising the national aviation legislation. In accordance with the strategic orientation of Croatia toward Euro-Atlantic integration, the implementation of the European aviation standardisation (Joint Aviation Requirements) has been foreseen as a precondition for joining the JAA.

During 1998, the basic acts have been accepted - Air Traffic Act and Act on obligatory and legal relations in Air Traffic, but the very important subordinate legislative regulations and related documents have not been provided yet. The Air Traffic Control system has also been commercialised by accepting the Act on the foundation of the Croatian Air Navigation Control.

The Physical planning strategy foresees possible locations for minor airports, and the final decisions regarding locating and construction need to take into consideration the findings and conclusions of the feasibility studies. Regarding the needs for satisfying the increased traffic demand during tourist season, as well as projections of demographic and economic development plans of the transport isolated regions, primarily the Adriatic coast, the possibilities of locating VTOL and hydro-ports need to be analysed as well as the economic justification of exploiting the non-conventional aircraft.

The development guidelines of the national Air Traffic control system are marked by integration into a unique technical system of the European Air Traffic control with the compatible institutional organisation (on a commercial basis) and technical and procedural harmonisation i.e. modernisation of communication, navigation and radar devices.

The development of air carrier fleet in Croatia is related to the gradual elimination of aircraft of national carriers who do not satisfy the noise standards in the international traffic and progressive introduction of a new "Chapter 3" generation - mid- and long-range aircraft. In domestic flights, the fleet development should be directed towards intensifying the small- and mid-size aviation which would justify regular flight connections between the Adriatic airports.

In restructuring of administration and standardisation of the Croatian air traffic, the strategic orientation towards Euro-Atlantic integration needs to be accepted. The organisational structure of administration should provide the autonomy of the basic organisations: the Air Traffic Control and the Civil Aviation Administration. Autonomous activity of aviation inspection also needs to be planned, as well as foundation of the autonomous organisation (of scientific profile) at the government level with the task of improving the technical and technological conditions and up-

grading of the general safety level of the national air traffic by preparing and promoting comprehensive and complete safety programmes.

New acts take great consideration of the strategic interests regarding integration of Croatia into the European air traffic system. The implementation of JAA-system standards, as the condition for joining, should be assured by making the related legal documents (subordinate legislative regulations).

Training courses for aviation personnel, civil and military pilots, as well as Air Traffic controllers, has been organised since 1992 at the Faculty of Transport and Traffic Engineering, Zagreb, and the training curricula are in accordance with the ICAO standards, whose minimum requirements have been incorporated in the specific conditions of the Croatian higher education (legal provisions related to scientific and research studies, i.e. verification of the study curricula). Croatia Airlines provides special training and further education to professional pilots for certain types of aircraft, and regular training on flight simulators.

The level of national air traffic safety cannot be realistically assessed within the existing administrative-organisational (inefficiency of aviation inspection, absence of autonomous safety control organisation), as well as normative setting. Therefore, there is a lack of complete safety programmes (including the national programme of protection against illegal actions).

The conceptualisation of the air traffic safety programme is therefore, closely related to administrative-organisational restructuring and defining of the complete air traffic development strategy in accordance with the international regulations, and primarily with the conditions of joining the "family of the highly developed" countries of the European Union.

3. PRESUMPTIONS REGARDING REINTEGRATION OF CROATIA INTO THE SYSTEM OF INTERNATIONAL AIR TRAFFIC FLOWS

The pre-war period was marked by regular international aircraft flows in overflight through the Croatian airspace. The international aircraft traffic along several frequent air routes amounted to an average of 1,000 to peak 1,600 overflights daily.

During war, the international air traffic routes were redirected mainly over Hungary (in extension to SR Yugoslavia) and somewhat less over Italy. The international air traffic network in Croatia was, thus, completely excluded from the international air traffic system, and this unnatural isolation of the Croatian airspace, regarding geo-traffic aspect, continued after the war as well.

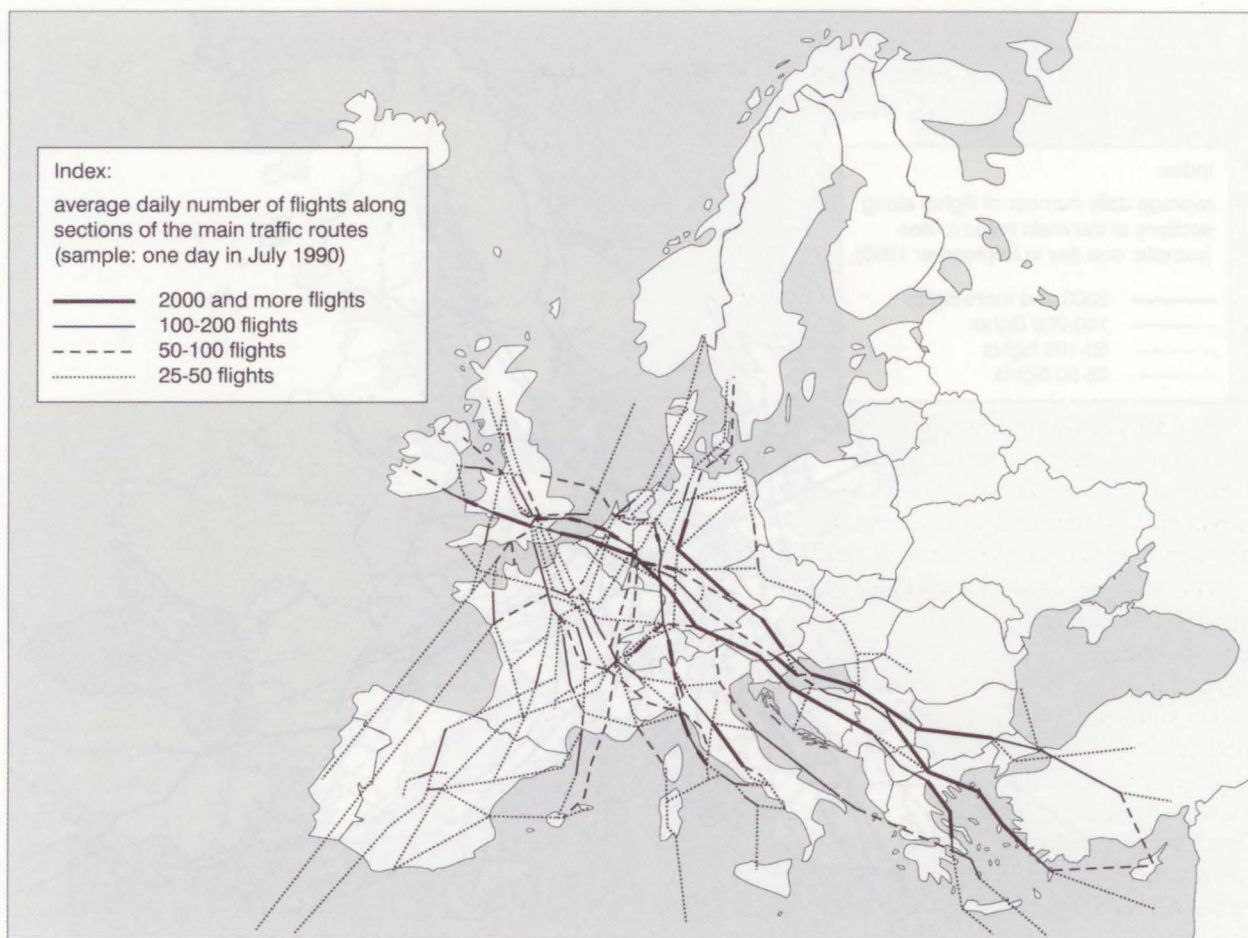


Figure 1 - International air traffic routes with heaviest traffic (sample from 1990)

In January 1996, ICAO formally confirmed full aviation authority of Croatia within the flight information region - FIR Zagreb (EUR Air Navigation Plan - Doc. 7754), that is, the authority of the regional flight control Zagreb for flights in the Croatian airspace and over a part of the Adriatic open sea.

In March 1997, on the initiative of the international community, a temporary trilateral agreement on co-ordination (Letter of Agreement) between the Air Traffic control Zagreb and Belgrade with SFOR was signed regarding opening of air routes for overflights in the upper airspace of Bosnia and Herzegovina (UB5, UB1, UB4, UG23).

These routes, however, have not been significantly operationalised in practice, and the majority of aircraft in overflight on relations North-western Europe - South-eastern Europe (and the Near and Far East) continue using air routes over Hungary and SR Yugoslavia, increasing the mileage and flight duration, as well as the exploitation costs of the international operators.

The air traffic development forecasts in Croatia are based on two options of traffic growth: one is the progressive growth of international aircraft traffic (overflights) i.e. reintegration of international air

routes, and the other is further isolation of the Croatian airspace. From today's point of view, both options are in the context of exclusive orientation of Croatia towards European integration, i.e. possible political and regional relation of "Europe" toward Croatia.

It should be pointed out that Croatia is a full member of ICAO, as well as of the European aviation associations ECAC and EUROCONTROL, and that she participates in the relevant projects, e.g. EATCHIP and CEATS⁵.

It would, therefore, logically follow that precisely the mentioned organisations would contribute most to the reintegration of Croatia into the international air traffic system, i.e. that they would reactivate the existing air routes in Croatia, since the overflight charges (over CRCO⁶) would provide the source of allocated funds for modernisation of the CNS⁷ system and investment into the necessary air traffic infrastructure in Croatia. This would also provide a positive "feedback" from the point of view of Croatian participation in the European integration programmes (EATCHIP, EATMS, ATM 2000+).

From the aspect of geo-traffic connections, the explication of air traffic development guidelines in Cro-

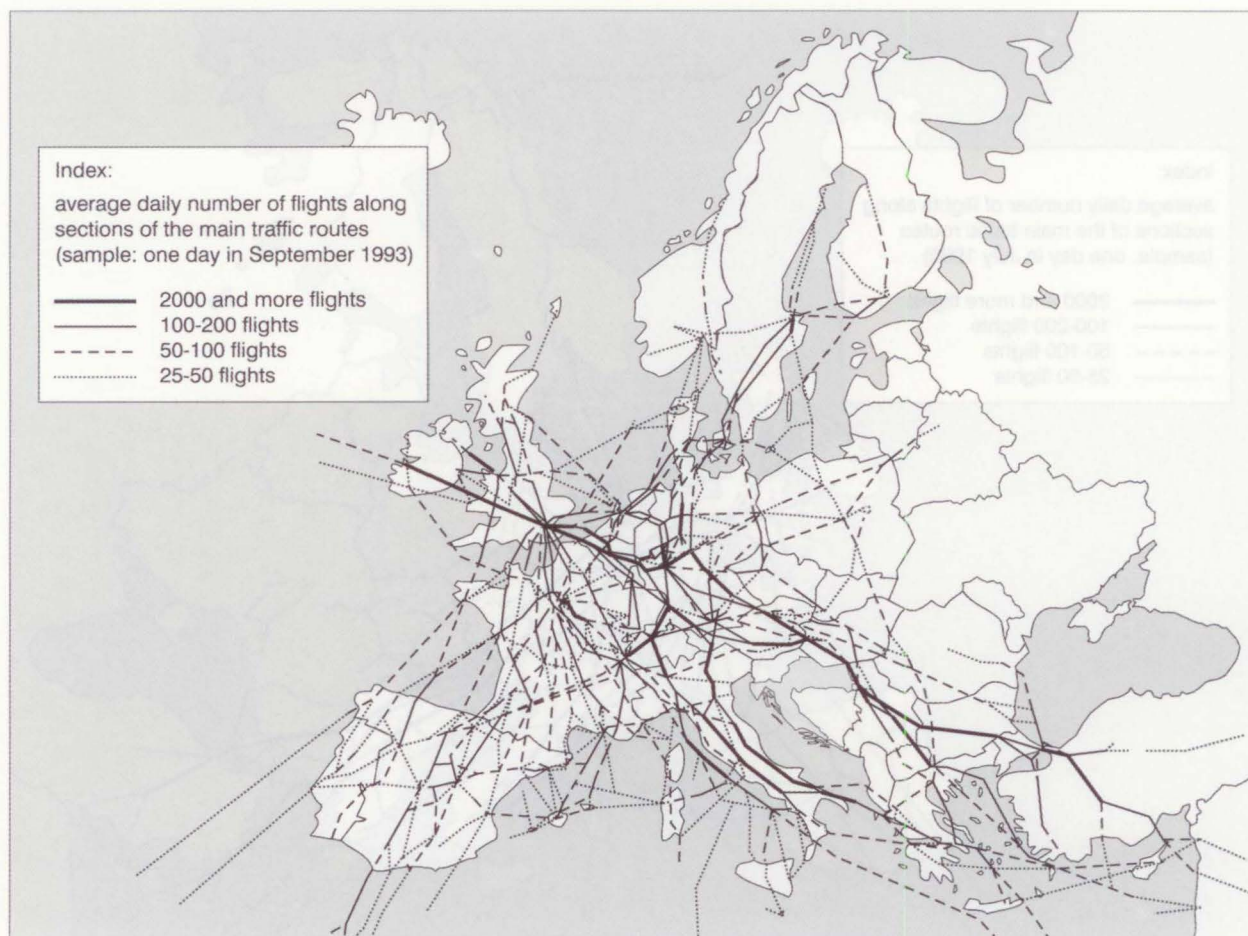


Figure 2 - International air traffic routes with heaviest traffic (sample from 1993)

atia necessarily includes the unsolved problem of exploiting air traffic in the neighbouring Bosnia and Herzegovina. Specific problems of air traffic development in Bosnia and Herzegovina, that have resulted from the war in this region, but also due to problems of the triple administration (at government level, at the Federation level and at the level of the Republic of Serbia) are manifested in the impossibility to operationalise an integrated aviation administration, including the reintegration of Bosnia and Herzegovina into the system of international air traffic flows. This example shows clearly the inertia of the European aviation associations in the attempt of finding a suitable solution, primarily for the international operators, and then for a harmonised development of air traffic in Europe. According to a recent source, it may be concluded that the US aviation administration (FAA⁹) has been engaged in solving the problem of air traffic exploitation in Bosnia and Herzegovina, which raises the question of future aviation regulations i.e. the aviation normative system in Bosnia and Herzegovina.⁹

Apart from Croatia and Bosnia and Herzegovina, the reactivation of the existing international air routes lies also within the interests of Slovenia, whose airspace is mostly isolated from the traffic point of view,

and partly delegated to the authority of the Austrian Air Traffic control (the Mura region).

Therefore, a synchronised engagement of these countries would mean a lot in solving the operative problems of the existing international air routes, and especially a common strategy within ICAO-EANPG¹⁰, a co-ordination body for aviation planning, development and legislation in the region of Europe and the countries of former USSR, as well as in co-ordination of development plans of the countries of Central and Eastern Europe. From the geo-traffic aspect, the interests of Croatia, Slovenia, and Bosnia and Herzegovina also overlap in issues regarding possible marking out of new international air routes within the international initiative of traffically connecting the Baltic and the Adriatic (Mediterranean).

4. CONCLUSION

By analysing the air traffic flows dynamics within Europe and the actual traffic load on international air routes within the European network, the traffic isolation of the Croatian airspace becomes evident. The strategic orientation of Croatia towards European in-

