Impact of High-Speed Rail Transport on Airspace Congestions

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Abstract—Airspace and airports in EU and in the United States face serious congestion issues while in EU high-speed rail network is being expanded and in the United States considered. In the 2009 United States, 60% of passengers travelled on short-haul flights up to 1,600 km (1,000 miles) while average delay for a delayed flight reached 56 minutes. In 2009 EU, average delay was 28 minutes. In EU, some of the airlines (e.g., Air France-KLM), have already started cooperation with high-speed rail operators (e.g., SNCF). In the framework of this cooperation, passengers are able to use their airline ticket to travel, for example, from Paris to Brussels by a high-speed TGV train. Objective of this paper is to analyse whether high-speed rail transport could contribute to cut airspace congestions by diverting some of the short-haul flights to the EU high-speed rail network while maintaining cooperation scheme between the high-speed rail operators and the airlines. Potential future benefits include extension of the outcomes to the transport market in the United States, where high-speed rail network is yet to be developed.

Index Terms—Air Transport, Airspace Congestions, High-Speed Rail Transport.

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