



REGIONAL RAILWAY NETWORK IN POLISH PART OF NEISSE EUROREGION

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ABSTRACT

The present state of railway connections between Poland and Czech Republic on area of Neisse Euroregion and Western Sudeten was described in the paper. The obligatory legal regulations referring to railway lines of local meaning in Poland and some problems with their execution were discussed. The idea of Czech program of integrated rail communication "Regiotram NISA" and its foundations with reference to Polish railway line Jelenia Góra - Szklarska Poręba Górna was presented. An outline of the conception of integrated tram-train system of urban communication for Jelenia Góra city was also described. The advantages of revitalization the railway connection between Zgorzelec and Liberec were pointed in final parts of the paper.

Key words: Neisse Euroregion, Czech-Polish railway connections, integrated rail transport, local trains, Regiotram Nisa

1. Introduction

A considerable development of local and urban rail transport in Europe in last decade can be observed. This process is connected with deep changes in approach to public transport organization and also in rail equipment. Local rail transport is carried on by much more specialized equipment than it took place in the past [6]. The traditional electric or diesel multiple-unit sets or the railbuses of new generation are in use, also modern bi-current traction light rail units (trams) are used, which move on its own reserved track in the cities or in the suburbs and which can run on railway network sections.

The transportation policy of the European Union, published in the White Papers, assumes promoting the railway transport as the most effective economically, ecological and high-effective means of transport. These tendencies are supported by successive introducing legal regulations for enlivening a sector of railway transport and also for equalizing the disproportions between each branches of transport, particularly between railway transport and highly promoted in the past road transport, carrying no external costs of transportation.

One of directions of efforts is leveling historically formed technical and organizational barriers between member's countries of the UE (different traction, different systems of traffic control, passing through customs on the borders, etc) and unification the railway networks of each countries. The Technical Specifications of Interoperability (TSI) are worked out to fulfil these

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targets. TSI give instructions for unification the technical standards [5], they have to come into force already in year 2004.

Poland and Czech Republic can soon become the countries - members of the European Union. Borders, which have been dividing, have to unite. In spite of existence a large number of railway lines through the frontier, their present condition is extremely not satisfying. There is no any passenger railway connection between Poland and Czech Republic on almost 200-kilo-metre section of a border from point of junction of the borders of Czech Republic, Germany and Poland to the railway frontier passage Mieroszów-Meziměstí!

2. PKP railway network on western Polish-Czech borderland

The first railway line in western part of Sudeten, joining today's regions of Poland and Czech Republic, was opened on 29.12.1869. This line connected Sêdzis³aw (Ruhbank) and Trutnov via Lubawka (Liebau) and Královec. There was a stormy development of local railway network through the next 40 years. There were come into being almost all connections through the border at that time. Many of them have not reached the present day, some other are not exploited now and deteriorate.

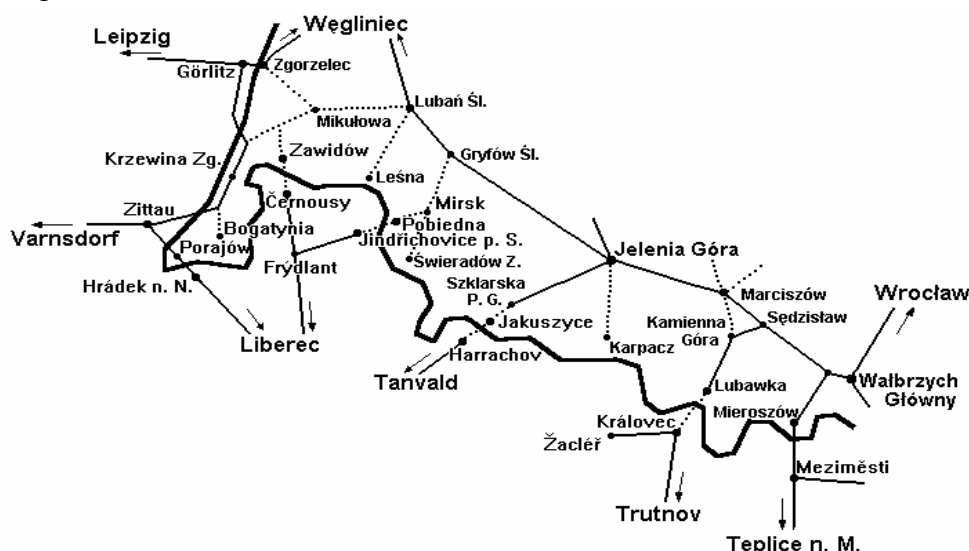


Fig. 1. PKP (Polish Railways) railway network on western borderland with Czech Republic. Symbols: — - active railway lines, - railway lines with suspended passenger traffic or closed.

A scheme of border PKP railway network on discussed area is shown at fig. 1. There were unprecedented liquidations of passenger services in 2000 year, unparalleled before on such scale, caused by every year considerable financial losses of PKP and permanent too low financing of railway sector by the national budget. There were passenger services suspended on the length of over 1500 km of railway lines at that time [3]. Another tide of suspensions of rail-way traffic was announced on March 2003 as a result of not meeting the government's legal fi-nancial obligations towards the carrier.

The present situation of particular Polish-Czech railway connections of Western Sude-ten region looks as follows.

- Lubawka - Královec. This railway frontier passage has been used only in freight traffic through a number of years. Freight traffic was lately suspended and there is no any railway traffic at present. There are 3 pairs of passenger trains a day in relation: Wa³brzych G³. - Luba-wka on Polish side of a border. It was announced entire suspension of passenger traffic on the line Sêdzis³aw - Lubawka on March 2003 but it has not been carried into effect yet in

result of negotiations with municipal authorities. There are 6 pairs of passenger trains running through Královec on Czech side of a border, all in relation Trutnov - Žacléř.

- Jakuszyce - Harrachov. The opening of this railway connection took place on 1.10.1902. Train traffic through the border is suspended since the second world war but the track have not been taken apart. On Polish side there is train traffic from Jelenia Góra to Szklarska Poręba Góna (since 1987 of electric traction) about size of 9 pairs of passenger trains at present. A section from Szklarska Poręba G. to Jakuszyce is used as the siding of a quarry. 9 pairs of passenger trains run on Czech side in relation from Tanvald to Harrachov. An occurrence of the slope reaching 58 ‰ and the use of rack-rail is a curiosity of the line. The traffic of adhesive running trains is possible but the locomotives have to possess good traction properties. In last years the track was cleaned on not exploited border section, and there were also single runs of Czech trains with sympathizers of Jizerská Dráha (Iser Railway) through the frontier to Szklarska Poręba.

- Pobiedna - Jindřichovice p. Smrkem. The railway line Mirsk - Pobiedna on Polish side was completely withdrawn from exploitation in 1987 year. On Czech section Frýdlant - Jindřichovice p. Smrkem 11 pairs of passenger trains a day run nowadays. The connection through the frontier is not passing, tracks are removed on border section.

- Zawidów - Černousy. - It was train traffic from Lubań Œl. or Zgorzelec to Bogatynia through Zawidów on Polish side. The trains entering into station Zawidów were changing the direction of traffic. The passenger service on this line was suspended on 3.04.2000, the freight traffic is sporadic. On Czech side 15 pairs of passenger trains run nowadays on route Frýdlant - Černousy. The connection through the frontier is passing, a ČD railbus arrives to Zawidów from Černousy [1] however it does not realize any regular passenger connection through the border but it only brings customs officers and railroaders to Zawidów.

- Bratków Zgorzelecki - (Zittau) - Hrádek n. Nisou. The borders of Czech Republic, Germany and Poland, fixed in 1945 year, divided the railway infrastructure this way that train traffic of all of three administrations has to be conducted partly on the territory of adjoining country. So the travel from Poland to Czech should be run on German territory to Zittau, where trains have to change the direction of traffic, then they have to cover 3-kilometre long section again on territory of Poland to enter at last Czech station Hrádek n. Nisou. The passenger service on Polish part of this connection is suspended since 3.04.2000, there is found not large freight traffic. The ČD passenger trains run through Polish and German territories in relation Varnsdorf - Liberec in amount of 7 pairs of trains a day, including 2 pairs of long-distance trains. Private carrier Connex is active in Germany on described region since 15.12.2002, serving the motion of passenger trains on route Görlitz - Zittau. German trains run on territory of Poland on the section over 11-kilometre long, they even stop on Polish station Krzewina Zgorzelecka. The problems of railway lines on Polish-German-Czech borderland were widely discussed in [1].

3. Legal regulations relating to local railway lines in Poland

The main obligatory nowadays legal files, regulating the status of local railway lines in Poland, are: The Law about railway transportation [10] from year 1997 and The Law about commercialization, restructuring and privatization of the national firm PKP [9] from year 2000. Some recordings of mentioned Laws, to which attention should be paid in context of local railway lines, are pointed below in short. These are the following statements:

- The railway administration can liquidate a railway line of local meaning or its part after previous suspension of traffic at least by six months and after obtainment the voivode's opinion.

- Railway lines of local meaning can be delivered free of charge by PLK SA* to the units of territorial autonomy or sold to businessmen (...) with agreement of the minister proper to matters of transportation.
- Capital expenditure and expenses of maintenance of railway lines of local meaning are financed from means of the railway administration.
- Capital expenditure, which is talked about (above ...), can be financed from other sources.
- Organization and subsidizing the local passenger service is the one of own-tasks of the provincial administration and the financial means on these tasks are qualified each year in budget law.
- Passenger service, which is talked about (above ...), can be financed from budgets of the units of territorial autonomy.

One of the essential effects of initiating the Law [9] should be inclusion of provincial, district and communal autonomies to processes of organization and financing local railway traffic. This is nowadays the only way for saving devastated, dying local railway lines. Many of self-governments are interested in taking possession of railway lines, lying on their range, how-ever the main problems are limited financial possibilities of autonomies, not supported by national budget and lack of stability of legal regulation, discouraging potential organizers of local traffic.

4. Project "Regiotram NISA"

The work over the project of integrated system of urban rail communication for Liberec - Jablonec agglomeration and also for all Neisse Euroregion was begun in Czech Republic in 1999 year under the name "Regiotram NISA" [7, 1]. The idea comprises the inclusion in uni-form system of connections a row of Czech localities and also German Zittau and Polish Jele-nia Góra, with utilization two of described above railway frontier passages. The scheme of connections of all Regiotram NISA system is showed on fig. 2.

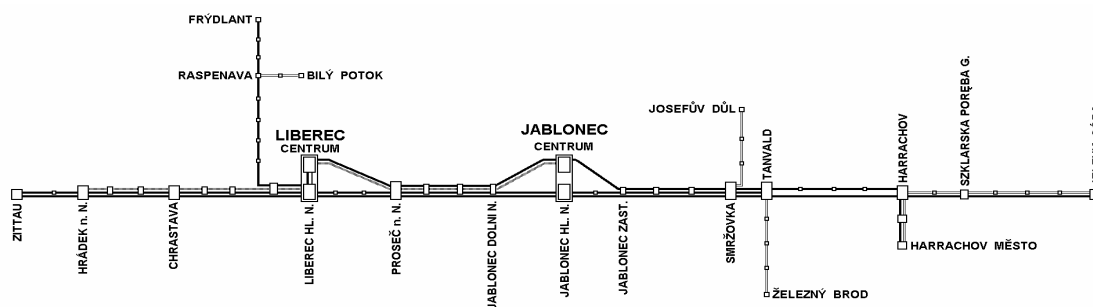


Fig. 2. The configuration of railway lines in "Regiotram NISA" system [7].

The project is based on exploitation of light rail transit, after the example of German city Karlsruhe, where this technology was introduced for the first time in 1993 year [6]. Classical model "Karlsruhe" gives possibility of entering the trams on railway tracks. Tram vehicles have to be adapted to be supplied by two values of voltage: urban and railway.

It is provided to introduce the tram-train system on route Liberec - Jablonec - Tanvald in the first phase of work. The region situated along the railway line is very densely populated and also includes areas of high touristic and recreational values (CHKO Jizerské Hory; aerial cableway on Ještěd, etc). In central parts of Liberec and Jablonec trams would run on its own reserved track and between these cities (sections: Proseč n. Nisou - Jablonec n. N. dolní nádr. and Jablonec zastavka - Tanvald) the traffic would be conducted on existing railway tracks.

* Polish Railway Lines Joint-Stock Company - the company administering the railway infrastructure

In the following phase it is provided to start railway connections on route Tanvald - Jelenia Góra and Liberec - Zittau with side railway lines branching out from axis: Jelenia Góra - Liberec - Zittau. The project provides the journey of two kinds of trains on section from Czech Republic to Poland:

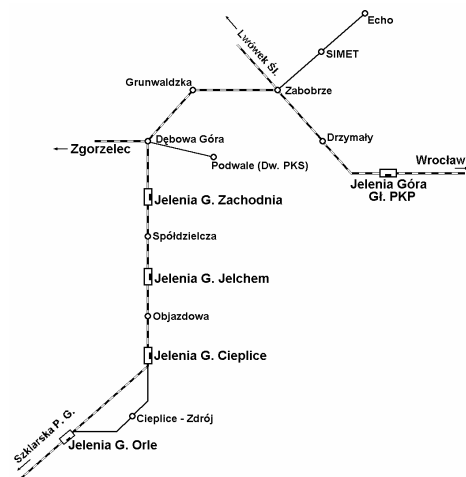
- accelerated regional trains ("express trains") Jelenia Góra - Liberec - Zittau, which would be set up as diesel multiple-unit sets or rakes of coaches with diesel locomotive to the time of electrification all sections of the route,
- local trains Jelenia Góra - Harrachov, which would be running to the centre of Harrachov in the future after building branch line Harrachov - Harrachov Město, set up as diesel (electric in the future) railcars or multiple-unit sets.

Both kinds of trains would run in time of 60-minute each.

The main initiator and co-ordinator of works on project "Regiotram NISA" are authorities of city and district Liberec. One of the main problems is coming into co-operation with German and Polish side. For example, the attempts of starting regular connection through the border from Tanvald to Jelenia Góra were undertaken more than once in last few years but problems of bureaucratic type, created by Polish side, are as yet an unsurmountable obstacle.

5. A proposal of integrated urban rail system for Jelenia Góra

A conception of integrated tram-train system for Jelenia Góra, similar to described above project for cities Liberec - Jablonec, is included in the paper [4]. The conception assumes starting up tram communication in the city basing on railway line Jelenia Góra - Szklarska Poręba Górna. This line, surrounding the centre of the city from three sides, creates convenient conditions for connecting the most important points of the city after realization indispensable infrastructural investments.



The main foundations of idea of bi-current traction tram in town are following:

- construction of new tram-halts on railway line, thickening existing net of stations and railway-halts (fig. 3.),
- building short branches of tram-tracks from railway line, leading trams to main parts of the city, being popular destinations of travels (fig. 3.),

Fig. 3. A scheme of the conception of tram net for Jelenia Góra. Symbols: — - existing railway lines, - - - - newly built tram tracks, □ - existing stations and halts, ○ - newly built tram-halts.

- obtaining the times of running of trams significantly shorter in relation to working at present bus transportation,
- adaptation the frequency of courses to travellers' demands,
- synchronization of tram and train timetables on common sections of railway line,
- adaptation the network of city bus lines to the system of quick tram routes, eliminating sections of routes lying parallelly,
- synchronization of scale of charges, making possible travelling with all forms of urban and local communication (buses, quick tram, local trains - in specified zones) on one kind of tickets,
- and other.

In case of introduction bi-current traction trams on Jelenia Góra - Szklarska Poręba G. railway line tracks, the capacity of this single track line would become certainly exhausted on area of Jelenia Góra city. Proposed 30-minute time of running of trains of system "Regiotram NISA" from Czech Republic would be in this context technically unrealisable without building the second track. Some of trains running from Harrachov or Liberec could finish movement in Cieplice or Piechowice, where also would be the the terminal halt of quick tram (within the railway station), creating convenient possibilities of transfer.

6. Conclusions

The condition of Czech-Polish railway connections along western part of border between the countries is insufficient. The only active at present railway frontier passage is Mieroszów - Meziměstí, which is also threatened by closure in nearest time.

The most convenient conditions for restoration of transborder traffic refer to Jakuszyce - Harrachov passage. There are also the most advanced conceptional works of organization of train connections for this passage (project "Regiotram NISA").

The Zawidów - Černousy passage also has got convenient position. The restoration of railway passenger traffic should be considered for this route. Initiating the railway connection on route Liberec - Zgorzelec would create quick and convenient connection Liberec-Jablonec agglomeration with Zgorzelec-Görlitz cities. What is maybe more important, an access from Northern Czech to international railway corridor E30 would be obtained this way, and then the cities Liberec, Jablonec and Neisse Region would gain quick connection with such large centres as Dresden or Wrocław.

One of main problems, preventing actuating frontier passages, can be the legal status of local railway lines in Poland and related to this their technical condition. These lines are usually not exploited for several years and go to ruin. The outlays on their restoration to technical efficiency will be more and more greater with every year. If the policy of Polish authorities referring to railways is not varied, maybe soon it will remain nothing to save and creation the new railway frontier passages will only stay a not realized dream.

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