Jana Pieriegud

# Container Transport on the CIS Railway Network

# The second "container revolution" is just beginning

The development of the container transport in the contemporary world is associated mainly with a maritime transport. World container shipping in the recent years has experienced the biggest boom in the history of this industry. Today, approx. 90% of general cargo worldwide moves by container ships. The level of the containerisation is not already showing level of innovativeness of the technologies used in transport but also in the whole economies. Besides, intermodal container transportation plays an important role in creating of international supply chains. In the discussions about container transportation almost nobody remembers, that the idea of the using different types of boxes for carrying of goods, dates back to the 19th century and was developed firstly by the railways on several continents. There were small containers, with a simple construction, that did not resemble contemporary containers. Using containers in a land transport until 1960s had rather national than international feature.

In many regions of the world the market of container transport is currently assessed by experts as having good prospects and as dynamically developing. The CIS region is no exception here.

Looking back at the history, the idea of using large boxes in the transport of cargo firstly occurred to Russian transport specialists in 1889. At Russian train stations on the Western borders, cargo had to be hand unloaded from cars on the wide gauge Russian tracks and reloaded into those on the standard European rails. In order to speed this operation, a boxcar was developed with removable halves, which could be transferred between trains. These were the first Russian freight containers. In 1932 the first standardized wooden container was developed with a two-ton capacity. Three years later a national standard for containers was adopted, covering capacities ranging from 3/8th-ton to 5-ton. By 1950 the number of 2.5-ton containers had grown to 150,000, and metal constructions began to find use1.

The extensive development of containerisation as an efficient way

400 Container transportation
350 Global trade turnover
Global GDP

250
200
1990 1992 1994 1996 1998 2000 2002 2004 2006

Figure 1. The growth dynamics of container transport worldwide (1990=100)



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of door-to-door delivery started back in the second half of the 20th century. The number of container points in the former USSR increased within a decade from 134 in 1950 to nearly 1000 in 1960. Almost all of these points were located at railway stations and sidings. Already in the early 1960s the network of container terminals in the USSR was nearly fully developed<sup>2</sup>. Towards the end of the 1970s, daily loadings of containers on all modes of transport amount to 44,000. The yearly volume of general cargo carried in universal containers is approaching 30 million tons, more than twice the amount carried by all major nations of Western Europe together. Ten years later it was already more than 80 million tons. About 95% of these volumes were moved by rail. The record levels of transit transport via the so-called Trans-Siberian Container Bridge were reached in the early 1980s, and the

travel time of fast container trains from the Nakhodka Seaport in the Russian Far East to Chop Station on the Ukraine-Hungary border was shortened to 11 days<sup>3</sup>.

The potential of the container transport system, created in the former USSR up to the beginning of 1990s, could not be maintained or developed in the subsequent decades for a number of reasons. When this system was arisen and developed, the level of technical and technological progress in transport significantly differed from the contemporary. For example, the container fleet belongs to MPS (former Railway Ministry) comprised low-load capacity units, whereas the largest sea vessels could take as many as 2600-3000 containers. Because a development of containerisation in a railway transport then was ahead of container sea shipping, an equipment of railway stations (outside ports) were generally limited for handling only small and middle containers. However, up to now an access to equipment for 20feet and 40-feet sea containers is insufficient. It should be borne in mind that the soviet container system built in conditions of a planned economy was inherently inefficient.

In the early 1990s, the MPS system operated over 160,000 containers (mainly low-load containers of up to 5 tons), and another 150,000 containers belonged to shipping companies. The container fleet of MPS was divided between the 15 railway administrations of the former soviet republics. The dissolution of the USSR and the deep economic crisis of the first years of transformation in most of these countries had a negative impact on both the volume and quality of rail freight transport, among others in terms of time and safety of transhipment. The situation worsened with the introduction of customs procedures between the members of CIS and with the rise of railway tariffs. Consequently, the volume of container transport on the CIS network dropped by nearly one half in the period 1992–1996. Adaptation to the new market conditions required time and change in the patterns of behaviour of the railway market participants.

The beginning of the 21st century marked a new stage in the development of container transport within

CIS. In some of these countries, companies were separated out of the structure of state railway enterprises to organize container transport. Also new operators with their own fleet entered the market. The current growth rate of rail container transport (5.7% in 2006) is higher than the overall railways dynamics (4.2%). More than 5,700 containers are loaded every day on the CIS railway network (only 42% of them are large containers). The number of container block trains increases from year to year, along with improved quality of service. In spite of many difficulties that face the market participants, a continuous increase in railway container transport is forecasted. The "second container revolution" has only just started here.

# Changes in the Russian container transport market

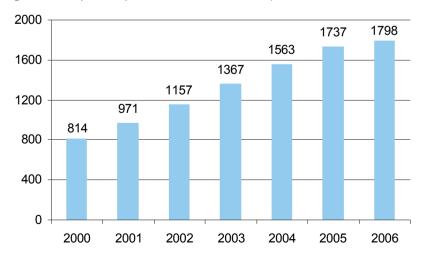
Since 1999, a steady increase in container transport has been noted on Russian Railways. In the period from 2000 to 2006, RŽD's containerised freight movement almost doubled. Whereas between 2000 and 2003 the growth rate remained at the level of about 20% a year, in the following years it gradually slowed down to 14% (2004) and 11% (2005). Last year, 21,300,000 tons or 1,720,000 TEU were transported (only 3% more than in the previous year). A high dynamics (8–9% per year) is maintained in international transport.

In the Russian market of container transport there is a clear division between the stream of freight of Russian foreign trade (export, import and transit) and the transport within the country. In the case of export, Russian ports and railway border crossings are the main directions of freight transport. The market is practically shaped by and divided between forwarders. The situation is different with regard to transit—especially with transport by the Trans-Siberian Railway—which changes to a great extent with the level of railway tariffs and freight charges for sea transport between Asia and Europe.

Despite these difficulties, container transport in Russia is developing faster than other types of transport. The driving force of container transport is the growing Russian foreign trade turnover, above all import of industrial products (e.g., machines and appliances, electronic equipment, consumer goods), whose structure, unlike that of export, is suitable for container transport. The containerised goods rate in the case of import reaches 30% as against an average network rate of 2–3% and approx. 6% in export. Among the goods exported in containers are mainly paper, chemicals and metals, chemical products.

By 2011–2012, RŽD container transport will have doubled. To ensure such growth dynamics it is necessary to:

- create transparent principles of operation in the container market,
- tighten cooperation between different modes of transport, among others between the railway and seaport authorities,
- develop modern terminal infrastructure-both in sea ports and railways,



**Figure 2**. The volume of container\* transport in the Russian railway network (in thousand TEU) \*20-feet and 40-feet only.

Source: Based on RŽD and TransContainer data.

- purchase new rolling stock by private operators,
- increase the number of routes and the frequency of regular container trains,
- initiate cooperation of entities organizing container transport,
- develop new efficient organizational variants of container transport, in line with contemporary supply chain concepts.

The largest operator in the railway container market in Russia is Trans-Container. Other significant operators in this market are: Russkaya Troyka, EvroSib, SunGate, Incotec-Trans-Serwis, F.E.Trans, DVTG, TIS, Modul companies, and Sojuzvneshtrans concern. At present, most of them working to expand their own fleet of wagons and containers. For instance, Russkaya Troyka increased its rolling stock to more than 1,000 flat cars last year. The experts of this company have calculated that, in order to ensure their optimal operation on the market, the company needs 2,300–2,500 flat cars. Incotec-Trans-Serwis has 1,620 flat cars, including 377 of their own. Sun-Gate is planning to buy at least 600 flat cars by the end of 2008. DVTG in turn is going to invest approx. \$38 million in the development of the container business in the next three years. EvroSib received an IFC loan of \$120 million to build four container terminals with a joint loading capacity of 240,000 TEU.

About three fourths of the railway container transport on the domestic market is carried out in containers owned by RŽD S.A., and since January 1, 2006, in those belonging to its subsidiary, JSC TransContainer The main business activity of the company is to provide comprehensive services related to organizing container transport, including: monitoring fleet operations, improving the quality of services, organizing the maintenance of containers, and transport-forwarding services. The company has 45,000 containers at its disposal (mainly 20feet), 23,000 flat cars of different types and 49 reloading terminals located across Russia. In July-December 2006, the company shipped 605,000 TEU, an 8% more than in the same period of 2005. To guarantee the planned increase rate of 10% annually, it will be necessary to invest in new rolling



stock and containers, modernize the reloading terminals and equipment as well as introduce a single IT system. TransContainer is planning to spend approx. \$192 million for this purpose in 2007.

Implementing its strategy of company development and forming the partner network on the global transport market, towards the end of 2006 TransContainer formed a joint venture with the Finnish Railways (VR) and signed an agreement on the joint uses of containers with a fast procedure of train customs service with the Chinese company SSTS, which is the national operator for container transport. The first joint container train is planned to be launched on the Beijing – Moscow route.

In December 2006, an agreement on the development of transit container transport between the Russian Railways (RŽD) and the Kazakhstan Railway (KTZ) was concluded. Also a memorandum was signed with the Latvian Railway (LDZ) on cooperation in organizing international container transport via those two countries. A network of representatives is being created in countries of significance for the development of container

transport on the East-West and North-South axes: the Baltic countries, Belarus, Ukraine, Central Asia, Western Europe and South-Eastern Asia.

The automotive sector has become one of the directions of development of the company's container transport. So far the company has transported shipments of car subassemblies from Korea (Hyundai, Daewoo) and China to Russia and Uzbekistan. In the first two months of 2007, several new contracts were obtained in the automotive industry:

- At the end of January a demonstration run of two container trains was organized on the Novorossiysk Naberezhnye Chelny route, which carried components for assembling FIAT vehicles (to the factory of SeverstalAvto Group). A total of 224 TEU was transported. As a joint enterprise of Novorossiysk Port Authority and the TransContainer company, these trains will travel regularly.
- On 9 February 2007, a memorandum on cooperation with IzhAvto for delivering car components for the assembly of KIA Spectra, KIA Rio JB and KIA Sorento cars in the Izhevsk plant was signed. The con-



tainers are to be delivered by sea from the Korean seaport of Pusan to the Russian seaport of Eastern Nakhodka and then transported by container trains (on average, 75 TEU each). The trains are expected to travel five times a week. It is noteworthy that in early February a similar contract (20,000 TEU a year) was signed with the FESCO company, which runs two trains a week. The necessity to launch additional trains resulted from the anticipated increase in the quantity of components delivered to the factory this year by approx. 240% as compared to 2006, which is supposed to reach the level of 60,000 TEU. A major condition for this project to be successful is to ensure speedy loading of containers in the port and exchange of information between all the project participants.

In cooperation between the Trans-Container and the German, Czech and Belarusian Railways, in the second half of this year it is planned to launch container trains on the Germany/Czech Republic – Poland – Belarus – Russia route, which are to deliver parts and components to the newly built Volkswagen plant in Kaluga. A short delivery time is to be ensured due to a single bill of lading.

One of the largest Russian shipping and freight forwarding companies is Far Eastern Transport Group (DVTG), which was founded in 2001 as a result of a merger of about a dozen transport and forwarding companies. Today it is one of the largest players on the Russian transport market, with an extensive network of branches across Russia, CIS and China. The Vostoktranscompany deals with the development of railway

container transport within the DVT Group. In 2003, DVTG launched the first container train Eastern Nakhodka – Almaty. Regular container train services via the Trans-Siberian Railway are being constantly developed. Also the rolling stock comprising containers and 80-feet flat wagons for their transport is growing, and the construction of a terminal on the Russia-China border is almost finished.

Russkaya Troyka was founded in November 2004 by RŽD and DVMP (Far Eastern Shipping Company PLC, known as FESCO) in order to offer railway-sea services in the intermodal transport market. A strategic line in the company's development is East-West transport on the Trans-Siberian Railway. Last year, the FESCO Group, which intends to control half of the Russian market of container transport by 2010, invested over \$300 million in railway transport assets.

Russkaya Troyka started its operation in March 2005 and the first train for transporting containers with Hyundai vehicle components to the IzhAvto Taganrog plant was launched in April. The hundredth train left Nakhodka to Taganrog in January 2007. By the end of January, over 14,400 TEU had been shipped on this route. In two years the Russkaya Troyka company transported 65,700 TEU. The company uses more than 1,000 dedicated flat cars. Regular container trains now run on three routes: Nakhodka – Taganrog (Hyundai project), Nakhodka – Moscow, Nakhodka – Izhevsk (KIA Motors Corporation project).

The leader among the private forwarding companies operating in the Russian container market is for many years the **Transsiberian Intermodal Service (TIS)**. In 2006, 78,400 TEU

were shipped. The main transport directions provided by TIS are: Baltic Sea ports - Central Asia; Russian sea ports - Central Asia; Europe - Russia/ Central Asia; China – Siberia – Ural – Central Russia - Central Asia; South-Eastern – Europe. The TIS is the operator of the "Baltic-Transit" train (106 sets in 2006) and Eastern Nakhodka – Central Asia train (32 sets). The company widens a geographical range of activities and opens new branches in Russia as well as abroad (Germany, China, Kazakhstan). Scale and quality of services are also improving, and new intermodal projects are launched4.

The major problems in the development of railway container transport in Russia are:

- an untransparent tariff system,
- obsolete rolling stock of containers and wagons,
- a deficit of dedicated rolling stock for container transport,
- a shortage of technical facilities for the maintenance and servicing of wagons owned by private operators.

The general deficit of flat wagons for container transport is estimated at 17,000 units. The leading Russian manufacturers of rolling stock for container transport are<sup>5</sup>:

- Abakanvagonmash producing 40' (13-9015 type) and 60' flat cars (13-9004, 13-9004-1, 13-9009 types).
- Altaivagon (Kemerovo branch) 40' (13-2114K, 13-2108, 13-2116, 13-2116-01 types) and 80' (13-2118 type). In 2005, they produced 250 flat cars of 13-2126 type and 100 of 13-2118 type. In January of the this year they produced 84 flat wagons, including 24 units of 13-2116 and 13-2116-01 type, and 10 units of 13-2118 type.
- Bryansk Engineering Plant which belongs to Transmashholding – 40' (13-3103-01, 13-3110 types) as well as 13-3124 model for doublestack cars and 80' (13-3115-01).
- Transmash (Engelsk Plant) 40' (13-9744 type) and 80' (13-9743 and 13-9751 types).
- Ruzhimmash 40' (13-1282 type), 60' (13-1223 type) and 80' (13-1281, 13-281-01 models).
- Armavir Heavy Industry Plant (which belong to the Ukrainian AzovMash Holding) – 80' (13-1796 model).



All the Russian manufacturers are at the moment modernizing the existing types of wagons as well as designing, testing, certifying and starting mass production of new models. The challenge they are facing is increasing the max. load capacity of the wagons from 69–71 tons to 72–73 tons with a max. axle load of 25 tons (a bogie produced by Uralvagonzavod is being tested). The Bryansk plant has started producing the 13-3124 flat cars for double-stack containerisation.

However, in conditions of dynamic development of container transport in Russia, the production capacities of these plants cannot meet the demand for dedicated rolling stock. In 2005, the total volume of flat car production in the Russian plants did not satisfy even a quarter of the market demand. In this situation some of the private operators on the market buy containers and flat car for their transport from Chinese manufacturers. The Russian plants also buy from the well-known Ukrainian plants, such as AzovMash, Kryukov Plant, Stakhanov Wagon Plant, and DneproVagonMash.

The largest fleet of containers are owned by TransContainer, DWTG, UralKontener, Balt-Plus, Evrosib-Terminal, SunGate, and Zapsibtransblok. There are only several plants producing universal containers both in Russia and the whole former Soviet territory, e.g., Abakanvagonmash (in Abakan), offering universal 20' and 40' containers as well as some types of specialised containers, and the BaltContainer in St. Petersburg. In March 2004, the first large container was produced in the Osipoviche Wagon Plant in Belarus. The situation is even worse with respect to specialised containers.

As 20' containers dominate both in the transport structure of all the CIS and the Russian market, flat wagons for transporting 20' and 40' containers are going to be most in demand, that is, 60' and 80' flat wagons and also wagons for the transport of intermodal containers, swap bodies, or whole truck trailers. The second largest sales market of this type of production among the CIS countries is Kazakhstan. However, the market demand will largely depend on the development of international as well as intermodal trains in the CIS, such as "Viking", "Yaroslav" etc.

**Table 1.** Container trains on the RŽD network\*

| Train no.                           | Connection   | Travel time<br>(in days) |  |  |  |  |
|-------------------------------------|--|--------------------------|--|--|--|--|
| Domestic communication              |  |                          |  |  |  |  |
| 1214                                | Moscow – Novosibirsk                                 | 3,5                      |  |  |  |  |
| 1220                                | St. Petersburg – Sverdlovsk                          | 3,5                      |  |  |  |  |
| 1222                                | Eastern Nakhodka – Shushary                          | 10,2                     |  |  |  |  |
| 1236                                | Moscow – Khabarovsk – Pervaya Rechka                 | 9,9                      |  |  |  |  |
| 1250                                | Kutsevo–2 – Sverdlovsk – Kleschiha                   | 3,4                      |  |  |  |  |
| 1266                                | Moscow – Sverdlovsk – Novosibirsk                    | 3,9                      |  |  |  |  |
| 1270                                | Moscow – Khabarovsk                                  | 9,3                      |  |  |  |  |
| 1280                                | Moscow – Novosibirsk                                 | 3,5                      |  |  |  |  |
| 1261                                | Krasnoyarsk – New Port                               | 4,7                      |  |  |  |  |
| International communication/Export  |  |                          |  |  |  |  |
| 1205/1206                           | St. Petersburg – Nigozero                            | 0,8                      |  |  |  |  |
| 1207/1208                           | St. Petersburg – Segeza – St. Petersburg             | 1,0                      |  |  |  |  |
| 1209/1210                           | St. Petersburg – Koyty – St. Petersburg              | 1,9                      |  |  |  |  |
| 1234/1233                           | Ust'-Ilimsk – Nakhodka, Vladivostok – Ust'-Ilimsk    | 4,5                      |  |  |  |  |
| 1238/1237                           | Bratsk – Vladivostok – Bratsk                        | 4,5                      |  |  |  |  |
| 1255/1256                           | Nizovka – St. Petersburg – Nizovka                   | 1,7                      |  |  |  |  |
| 1257/1258                           | St. Petersburg/Avtovo/New Port – Solikamsk           | 2,3                      |  |  |  |  |
| 1283/1284                           | Pravdinsk – Novorossiysk                             | 2,7                      |  |  |  |  |
| 1421/1422                           | St. Petersburg – Pravdinsk – St. Petersburg          | 1,7                      |  |  |  |  |
| 1434/1433                           | Shushary – Srednevolzhskaya – Shushary               | 2,9                      |  |  |  |  |
| 1445/1446                           | Solikamsk – Novorossiysk                             | 4,0                      |  |  |  |  |
| 1453/1454                           | St. Petersburg – Koshta – St. Petersburg             | 1,5                      |  |  |  |  |
| 1459/1460                           | St. Petersburg – Lynchagi – St. Petersburg           | 0,3                      |  |  |  |  |
| 1465/1466                           | Nigozero – Novorossiysk                              | 3,4                      |  |  |  |  |
| International communication/Import  |  |                          |  |  |  |  |
| 1203/1204                           | Beijing – Moscow – Beijing                           | 8,5                      |  |  |  |  |
| 1205/1206                           | Budapest – Moscow – Budapest ("Chardash")            | 3,5                      |  |  |  |  |
| 1207/1208                           | Berlin – Moscow – Berlin ("Ost Wind")  4,5           |                          |  |  |  |  |
| 1297/1298                           | Eastern Nakhodka – Moscow 10,3                       |                          |  |  |  |  |
| 1259/1260                           | Buslovskaya – Moscow ("Severnoye Siyanie")           | 1,0                      |  |  |  |  |
| 1271/1272                           | Odessa – Moscow – Odessa ("Odessa")                  | 3,5                      |  |  |  |  |
| 1439                                | Eastern Nakhodka – Martsevo                          | 11,2                     |  |  |  |  |
| 1403/1404                           | Beijing – Moscow – Beijing                           | 8,2                      |  |  |  |  |
| International communication/Transit |  |                          |  |  |  |  |
| 1201/1202                           | Eastern Nakhodka – Buslovskaya – Eastern<br>Nakhodka | 11,0                     |  |  |  |  |
| 1211/1212                           | Zabaykalsk – Buslovskaya                             | 8,3                      |  |  |  |  |
| 1285/1286                           | Eastern Nakhodka – Buslovskaya – Eastern<br>Nakhodka | 10,9                     |  |  |  |  |
| 1287/1288                           | Eastern Nakhodka – Buslovskaya – Eastern<br>Nakhodka | 10,8                     |  |  |  |  |
| 1229/1230                           | Eastern Nakhodka – Brest – Eastern Nakhodka          | 11,3                     |  |  |  |  |
| 1251                                | Eastern Nakhodka – Lokoc                             | 8,2                      |  |  |  |  |
| 1276                                | Brest – Iletsk                                       | 2,9                      |  |  |  |  |
| 1405/1406                           | Brest – Naushki 7,8                                  |                          |  |  |  |  |
| 1215/1216                           | Kaliningrad/Klaipeda – Moscow 2,3                    |                          |  |  |  |  |
| 1409/1410                           | Muuga – Moscow                                       | 1,8                      |  |  |  |  |
| 1418                                | Baltic countries – Kazakhstan ("Baltic–Transit")     | 4,3                      |  |  |  |  |

<sup>\*</sup> Based on TransContainer timetable until the end of May 2007 http://www.trcont.ru/index.php?id=18

in transit container transport on the

Trans-Siberian Railway was caused by

the rise of transit tariffs both for loaded

destinations of containerised goods is

China, where there has been an in-

crease by about a dozen percent in

the volume of transport. The develop-

ment of trade exchange between Rus-

sia and China fosters the opening of

new container services between these

One of the most quickly developing

and empty containers.

countries.

# Container block train services on the CIS rail network

The number of regular container trains in the CIS is increasing from year to year. The transport of containerised goods in block trains as compared to the technology of carrying single wagons or wagon groups allows to offer better quality services to railway customers, among others:

- significant (even by one half) shortening of transport time, especially in the case of international transport, among others thanks to using simplified customs procedures at the borders.
- guaranteeing fixed timetables,
- ensuring continuous tracking & tracing, and a higher level of security,
- offering attractive transport tariffs.

The "Viking", "Ost Wind", "Kazakh Vector", and "Baltic-Transit" are among the best-developing international container trains in the CIS.

### Russia

Last year on the Russian railway network 201,400 TEU were transported in 2,300 container trains. Every fifth container is moved in block trains, and in the case of transit shipments this rate amounts to approx. 77%. The current timetable provides the possibility of nearly 70 regular container trains (two years ago the number of such connections was smaller by a half).

The largest volume of containerised cargoes is transported on the routes running in the Eurasian land transport corridors: Trans-Siberian (part of which is the Pan-European Corridor II) and North-South (Pan-European Corridor IX).

In international services, 424,000 TEU were transported over the Trans-Siberian Railway in 2006 (8% more than the year before). Despite the

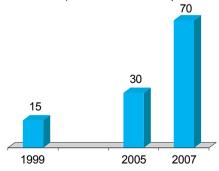


Figure 3. Number of regular container trains on the RŽD network

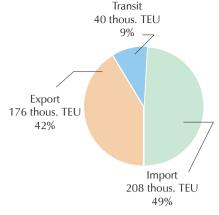


Figure 4. Foreign cargo transport structure on the Trans-Siberian Railway Source: Based on RŽD and TransContainer

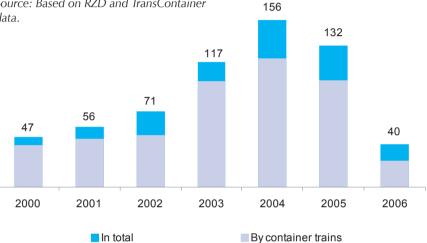


Figure 5. Transit transport via the Trans-Siberian Railway in 2000–2006 (in thousand TEU) Source: Based on RŽD and TransContainer data.



Figure 6. Volume of container transport between Russia and China (in TEU) Source: Based on RŽD and TransContainer

overall upward tendency, there have been significant changes in the structure of this transport. A dramatic decrease of transit cargo volume was accompanied by a high increase in import and export. The decrease

# **Belarus**

Organizing transport of goods by high-speed container trains is important for the Belarusian Railway (BC) because of their strategic location on the main East-West and North-South transit routes. In 2006, 767 block trains ran over the BC network, transporting 43,700 TEU. It was 30% more than a year before.

The first container train launched in the autumn of 1995 was the "Ost Wind". Over a decade from its running, the number of trains between Berlin and Moscow has remained relatively stable. In 2006, a total of 119 trains transported 4,281 TEU, including 1,737 of 20-feet and 1,272 of 40-feet containers. That amounted to 10% more than in the previous year.

However, the highest cargo volumes are transported by the intermodal "Viking" train, on the Odessa - Klaipeda route as part of Pan-European Corridor IX. The train was launched thanks to the cooperation of three railways: UZ, BC and LG, along with forwarding companies.

Table 2. International container trains with BC participation

| Train name                             | Connection                                     | Train route   | Travel frequency<br>(according to<br>timetable) | Railway<br>network      |
|--|--|---|---|-------------------------|
| Ost Wind                               | Berlin – Moscow                                | Grossbeeren-Frankfurt Oder/Rzepin<br>– Małaszewicze/Brest-Osinovka/ Krasnoye<br>– Bekasovo  | 3 times a week                                  | DB, PKP, BC,<br>RŽD     |
| Sodruzhestvo                           | Rotterdam – Moscow                             | Rotterdam/Bremerhaven – Frankfurt Oder/<br>Rzepin - Małaszewicze/Brest – Osinovka/<br>Krasnoye – Bekasovo   | as ready  | NS, DB, PKP,<br>BC, RŽD |
| Kazakh Vector                          | Brest – Aktobe                                 | Brest – Osinovka/Krasnoye – Kanisay/Iletsk-1 – Aktobe   | twice a week                                    | BC, RŽD, KZH            |
| Mongol Wind<br>(Mongol Wind<br>– Zhul) | Brest – Ulaan-Baatar<br>(Ulaan-Baatar – Brest) | Brest – Osinovka/Krasnoye – Naushki – Ulaan-<br>Baatar – ZamynUude – (Hohhot)   | twice a month                                   | BC, RŽD,<br>MTZ, (CR)   |
| Viking                                 | Odessa – Klaipeda                              | Odessa/Ilyichevsk – Zhmerinka – Korosten<br>– Berezest'-Slovechno – Zhlobin – Osipoviche<br>– Kolyadiche – Gudogai – Kena – Vayjdotay<br>– Radviliskis – Klaipeda | 3 times a week                                  | UZ, BC, LG              |
| Mercury                                | Kaliningrad/Klaipeda<br>– Moscow               | Kaliningrad/Klaipeda – Gudogai – Minsk<br>– Krasnoye – Kuntsevo-2   | once a week                                     | LG, BC, RŽD             |
| Nakhodka – Brest                       | Nakhodka – Brest                               | Nakhodka – Krasnoye/Osinovka – Brest/<br>Małaszewicze   | as ready  | RŽD, BC                 |

The intermodal trains carrying both containers and truck trailers in "piggyback" service, on specialised flat cars. Special tariffs, competitive with road transport, foster the growth of traffic on this route. Belintertrans and MinskZhelDorTrans are the train operators on the Belarusian side. In 2006, 481 trains were launched (80 sets more

than a year before). The number of containers shipped in comparison with 2005 doubled and amounted to 32,200 TEU.

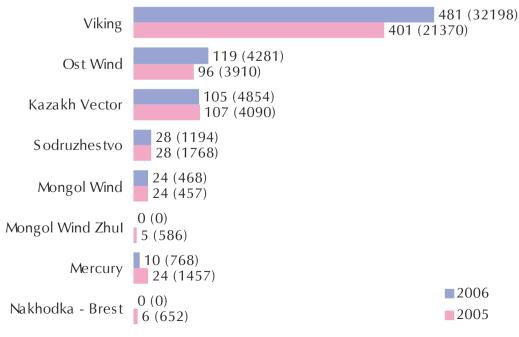
The "Sodruzhestvo" train has been running on the Rotterdam Bremerhaven – Brest – Smolensk route since February 2001. Next, from August 2002, a block container train called

"Kazakh Wind" is servicing the Brest – Aktobe route. The containers carried by this train have their destinations in countries of Central Asia (Kazakhstan, Uzbekistan, Turkmenistan, Tadzhikistan and Kirghizstan). In 2006, the total volume of containers carried by "Kazakh Wind" increased by 19%.

With the contribution of the Belarusian Railway, a container service was launched

in March 2002 on the Brest - Naushki - Ulaan-Baatar route under the name "Mongol Wind". The containers reach Brest either by rail or road. In March 2005. this train ran for the first time on the route China Mongolia – Russia Belarus – Germany (as "Mongol Wind – Zhul"). Belintertrans is the train operator on the Belarusian side. Only five trains have run on this route so far.

It is planned to open a high-speed container train service from Urumchi in China via the Kazakh and Russian railway network to Brest.



**Figure 7**. Container block trains on the BC network in 2005 and 2006 (in TEU) Source: Based on BC data.

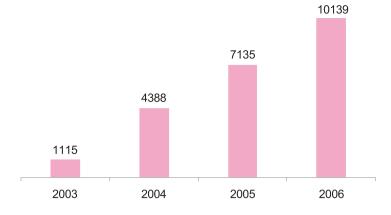


Figure 8. Increase of container shipments carried by the "Baltic-Transit" train (in TEU) Source: Based on LDZ data.

### Ukraine

In 2000–2004, the volume of the container transport by Ukrainian Railway (UZ) was growing on average by 50% every year, while during the last two years a growth rate has slowed down. To organize the container transport on the UZ network the Ukrainian State Centre for Transport Service "Liski" has been founded.

One of the first container block trains launched in 1998 across the UZ network was "Chardash" running between Budapest and Moscow. Container transport from the seaport of Odessa to Moscow has been effected since 1999 by the "Odessa" container train. In domestic transport, containerised goods are carried from the seaports of Ilyichevsk and Odessa to large Ukrainian industrial centres such as Kiev, Dnepropetrovsk and Khmelnytskyi by the block trains "Kreschatik", "Dneprovec", and "Podolye".

The potential for transit transport between the Baltic and Black Sea regions fostered the launching of the intermodal trains "Viking", linking Iliychevsk and Klaipeda, and "Yaroslav", between Kiev and Slawków in the south of Poland. In 2003-2004, the latter transported 3,500 road trucks. In 2005, it was planned to launch one more train, but due to increased

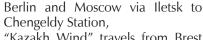
tariffs this link became unattractive to Ukrainian carriers. Together with Polish Railways and the train operator Mirtrans, attempts have been made to start container transport between the seaports of Odessa and Gdansk, within the Black-Baltic Sea Transport Corridor.

### Kazakhstan

Since 1999, KazTransServis, which is the state railway operator of KZH and the owner of container pool and specialised rolling stock, provides comprehensive range of container services on the Kazakh railway network. The partners of KazTransServis are: Sovfrakht from Russia, Intercontainer-Interfrigo from Switzerland, and China Railways International Freight Agency.

In cooperation with other railway administrations and forwarders, Kaz-TransServis organizes high-speed container trains across Kazakhstan on following routes:

- Nakhodka Lokoč Almaty Tashkent,
- Lianyungang Almaty / Almaty Lianyungang,
- Almaty Urumchi,
- Almaty Iletsk,
- Tianjin Almaty,
- "Ost Wind" is an extension of the container train operated between



- "Kazakh Wind" travels from Brest via Iletsk to Aktobe,
- "Baltic-Transit" carries containerised cargoes from the Baltic Sea ports of Kaliningrad, Riga, Tallinn, Muuga, and Klaipeda across Russia to Kazakhstan. Since the first train was launched in May 2003, there were 106 block trains dispatched until December 2006. The number of containers transported on this train is increasing from year to year. In 2006, it was increased by 30% to 10,139 TEU.

China, from the point of view of the Central Asian countries, is the most promising direction of the container transport development. In the end of September 2006, the first container trains were launched on the Urumchi Dostyk – Aksaraysk – Novorossiysk route. KazTransServis organized the transportation together with China Railway International Freight Agency. For several years, there have been projects to launch a container train on the China Kazakhstan – Russia – Ukraine – Poland route with an extension to Western Europe (known as "New Silk Road"). Moreover, Azerbaijan and Georgia together with KZT are interested in launching a regular container train on the Almaty – Aktau – Baku – Poti route. A pilot transport on this route took place already in late 2005.

The increase of a number of new container block trains on the CIS network is expected within the next years. However, only those projects will succeed, that are based on a stable flows of goods, and that bring economic benefits to all participants. Undertakings forced by political decisions usually finish after promotion runs.

# **Footnotes**

- <sup>1</sup> I. Barrie, The Russian Institute and the Soviet Container Threat, 19 June 1973, http://web.mac.com/jeffreybarrie/iWeb/Russia/Me/Me.html
- <sup>2</sup> M.D. Sitnik (ed.), Konteynernye perevozki, Moscow 1970, pp. 3, 47.
- <sup>3</sup> Container Business, No. 3, 2006, p. 20 and No. 4, 2006, p. 18.
  - <sup>4</sup> Based on the TIS company data.
- <sup>5</sup> RZD-Partner. Container, No. 3, 2006, pp. 4-8, and Container Business, No. 2, 2006, pp. 90-96 (Journals are published in Russian language).

