

Gordana Mišev

The Ministry of Energy of the Government of the Republic of Serbia

Professor Petar Stanojević

University of Belgrade - Faculty of Security

Professor Zoran Jeftić

University of Belgrade - Faculty of Security

Some Security Aspects of the Serbian Infrastructure on the “Silver Road”

Abstract

The People's Republic of China launched the *New Silk Road Initiative in 2013*. When completed, *New Silk Road* will link three continents: Asia, Europe and Africa. The chain of infrastructure projects will create the world's largest economic corridor, covering a population of 4.4 billion people and economies worth a total of 21,000 billion dollars [1]. Central and Eastern Europe is an important link in the chain that connects China with Europe, or the hub in the *New Silk Road* belt. The Republic of Serbia is located in Southeast Europe, at the crossroads of the main traffic corridors, with the shortest road and rail links from Western and Central Europe to the countries of Southern Europe and the Near and Far East. Serbia's infrastructure as a transit country is of great importance for easier access to and exploitation of natural resources and production capacities. Its main role is the transport of passengers and goods, as well as the transmission of data and information. Infrastructure projects include the construction of high-speed railways, roads and highways, networks for transmission and distribution of energy and networks of optical cables. Cities and harbors along the *New Silk Road* will record economic development. The paper analyzes the state of the Serbian infrastructure, its shortcomings and possibilities. If Serbia does not accelerate the development of infrastructure, with good estimates of growing commodity exchange and accelerated regional and global economic development, the advantages that it has can turn into weaknesses and endanger not only infrastructure security, as a follower of economic activities, but also slow down its own economic

development due to missed opportunities to find its place in a change of the economic map of the world.

Keywords:

Republic of Serbia, New Silk Road, Security, infrastructure, critical Infrastructure, trade, transport, road transport, corridor x, corridor xi, energy infrastructure, telecommunications

SERBIAN PARTICIPATION IN THE “NEW SILK ROAD”

The “New Silk Road” with one of its branches passes through or may pass through Serbia. Namely, since the ports of Piraeus in Greece and Kumport in Turkey have been transferred to the ownership of Chinese companies, it is expected that goods, primarily packed in containers, find their way to European markets through Corridor 10 with all its branches, from Greece, as well as from Turkey spreading to Serbia. Niš is becoming the main intersection because there will be commodity flows joining together from the direction of Turkey and Greece, and Belgrade is the main intersection where this flow will be divided with one branch heading to Budapest, and the other to Zagreb. This relates primarily to rail transport, but it is also necessary to expect an increase in road freight traffic.

In 2017, Cosco Pacific acquired its share in the third largest terminal in Turkey and the first terminal for import of containers – Kumport port. Annual capacity for manipulation of containers is TEU¹ 2,100,000 per year. Since the port is on the European side, this could lead to an increase in the overloading on Corridor 10.

The main source of potential cargo (and passengers) for Corridor 10 is still Port Piraeus with a threefold larger container capacity than Kumport port, owned by the same Chinese company. With about 20 million passengers, Piraeus is the busiest passenger port in Europe. Since 2009, container shipping has been growing rapidly in the port. In 2016, Piraeus transhipped TEU 3.67 million (in 2015: cca. 3.32 million and in 2014: cca. 3.58 million). According to Lloyd’s list of the top 100 container ports in 2015, Piraeus ranks eighth in Europe and the third in the Mediterranean [2]. Terminal 1 is operated by PPA S.A. (Greek operator) and has a capacity of almost TEU 1 million. Terminal 2 has a capacity of TEU 3 million and is managed by Piraeus container terminal PCT S.A., a subsidiary of COSCO. In 2013,

¹ The twenty-foot equivalent unit (TEU or teu) used to determine the capacity of container ships and terminals, and is based on a 20 foot (6.1 m) long container, weighing at roughly 24t.

PCT completed the construction of Terminal 3 with a capacity of about TEU 2.7 million. Total port capacity is TEU 6.7 million. Before the port was taken over by COSCO, a record container transshipment was TEU 1.5 million. Growth is not so significant if measured in tons. It is only 5% since 2013. and is similar to the 2007. level [3].

To this should be added that the Chinese liner operator (CSCL – *China Shipping Container Lines*) launched on the market the second largest freight container ship (19,100) in the world. *SC Oscar* is currently the largest container ship with the capacity of TEU 19,224 launched in 2015. Its (CSCL) shipment route is Shanghai – Europe.

In 2016, freight rail transport between several container terminals in China and Europe became fairly regular. Between some city terminals there is one train per week. There are many plans for organizing regular direct freight trains between China and European destinations (the Czech Republic, Poland, Germany). The plans envisage a transport service starting from 1–2 trains per month, gradually increasing the frequency to 1–2 trains per week. This trend will affect the flow of transport directed from Budapest to Belgrade and further South. Although it is estimated that the total volume of goods moving between China and Europe by rail will not exceed 1–2% of the volume of cargo on the sea, it can significantly take over cargo from air traffic. This is possible due to the fact that the railway is four times faster than ship and 80% cheaper than air transport.

Currently, in Serbia, out of 254 international trains, 130 trains are in regular service and 124 are “optional” (daily). Container lines were introduced for transit purposes through Serbian railways on the lines of Hal-kali (Turkey) – Dunajska Streda (Slovakia), Piraeus (Greece) – Pardubice (Czech Republic) – Piraeus (for COSCO) and Cologne (Germany) – Tekirdag (Turkey) – Cologne (for the company “Express”) – (See: new railway timetable for 2017).

Since 2014, a line between Piraeus and Prague has been established with a frequency of one train per week, and since 2017 the frequency is once a day.

The People’s Republic of China Cooperation Initiative with sixteen Central and Eastern European Countries (CEEC) “China + 16” was established with the aim of developing and enhancing cooperation between China and 16 countries of Central and Eastern Europe. China has allocated US\$ 10 billion for the project the *New Silk Road* in the region, of which Serbia and China will implement energy and transport infrastructure projects worth around US\$ 1.5 billion. Sinomach-Cneec-Cneetc’, a Chinese power and energy corporation, opened its office in Serbia intended for Europe. The Chinese company is interested in investing in large energy projects in Serbia

– TE Kolubara B, opening of Radljevo coal plant, HPP Djerdap 3 and small hydropower plants. The Chinese Hestil paid 54mil € for the steel mill in Smederevo, with investments estimated at EUR 300m. The purchase of the Port of Smederevo from the same company is also on the list (investment worth EUR 80m), the opening of the Chinese bank in Serbia, works in the thermal power plant Kostolac, as well as the cooperation between Huawei and Telekom Srbija. In June 2016, 20 inter-state agreements on economic-technical cooperation and construction, transport, infrastructure, science, technology, industry, education and culture were signed.

Trade between China and 16 CEEC countries has been steadily growing, and mutual trade has exceeded US\$ 60 billion in 2014. On the list of countries from which Serbia imported goods, China was placed fourth. Export of Serbia to China in 2014 amounted to US\$ 14.4 million, while in the same period from the P.R. of China were imported goods amounting to US\$ 1.7 billion. In the CEEC countries, Chinese companies invested more than five billion dollars, and in return, those 16 countries have invested more than 1.2 billion in total in China. The construction of infrastructure and a serious logistics network in the Eurasian region, including the Balkans, will open the way for this cooperation and exchange to accelerate rapidly over the next decade. On the one hand, this shows investment in increasing the capacity of ports, as well as a number of international and interstate infrastructure contracts (diversification of Serbia-Bulgaria trade (supply), completion of road and rail Corridor 10, modernization of Belgrade-Budapest railways, ...).

According to the *Republic Statistics Institute of the Republic of Serbia* around 6 million tons of goods are transported by road, so that significant growth was recorded in 2015 (8 million tons) and 2016, 9.9 million tons [4]. Total transport of goods by all means of transport (except air) was increased by 10.3% (26.6 million tons in 2015, to 29.4 million tons in 2016) [5]. Out of this, the rail transport amounted to 11.9 million tons, and by road 9.9 million tons, pipelines 5.6 and inland waterways 2 million tons.

ROAD TRANSPORT AND INFRASTRUCTURE

The number of vehicles on the roads in the Republic of Serbia monitors the PC 'Roads of Serbia' through reports collected from toll booths (570.9 km of highway where toll is charged at 43 toll ramps). During the year 2016, 43,006,496 vehicles passed through toll stations on Serbian highways, which is 3,670,014 more than a year ago (9.33%) and 6 million more than in 2014 (37,003,692 vehicles). Most of the vehicles passed from Belgrade to Niš (part of Corridor 10), as many as 21 million vehicles (49.3%). Out of the

total number of vehicles, almost 10% (4.2 million) belongs to vehicle category IV², which is an increase of 11% (400 thousand vehicles) compared to 2015 (3.8 million). If the road routes are compared, it can be seen that the northern and southern routes (Subotica-Belgrade-Niš-Presevo) include over 80% of the traffic. Previously shown in Table 1 [5].

Table 1. Total traffic per share

деоница	укупан саобр. 2016.	учешће	укупан саобр. 2015.	учешће	однос 2016./15.
Београд-Ниш	21.203.376	49,30%	19.693.100	50,06%	7,67%
Београд-Шид	7.422.805	17,26%	6.852.581	17,42%	8,32%
Београд-Суботица	10.729.299	24,95%	9.600.670	24,41%	11,76%
Ниш-Прешево	3.651.016	8,49%	3.189.231	8,11%	14,48%
УКУПНО:	43.006.496		39.335.582		9,33%

For the purpose of comparative analysis and better transparency, the table of 10-year vehicle traffic (transport) is given (Table 2). It shows that in 10 years the number of vehicles increased by 11 million (34.15%) and that the trend of increase from 1–2% per year is rapidly on the increase of 5–10% in the last two years.

Table 2. Transport in the period 2007–2016 [5]

година	укупно ушло + TAG	укупно напла. + TAG	% наплат.	годишњи тренд
2007.	32.071.436	31.912.809	99,51%	
2008.	32.585.547	32.497.639	99,73%	1,60%
2009.	32.776.445	32.648.884	99,61%	0,59%
2010.	33.506.830	33.389.062	99,65%	2,23%
2011.	34.051.040	33.925.706	99,63%	1,62%
2012.	34.483.033	34.413.266	99,80%	1,27%
2013.	36.122.202	36.076.495	99,87%	4,75%
2014.	37.003.692	36.971.133	99,91%	2,44%
2015.	39.335.582	39.296.217	99,90%	6,30%
2016.	43.006.496	42.965.884	99,91%	9,33%

² Motor vehicles with four or more axles (including axles of trailers) of a height greater than 1,3 m measured at the first axle and whose maximum permissible mass exceeds 3,500kg – the so-called. cargo vehicles.

On Corridor 10, the East branch it is still missing 25.3 kilometers to have a complete highway to the border with Bulgaria. There is still 34.28 kilometers in the South branch to be built so that this route should be linked to the border with Macedonia. On Corridor 11, 67.8 km of highway from Belgrade to Čačak is still missing. The Surčin-Obrenovac section should be completed by the end of 2019, and the sections Obrenovac-Ub and Lajkovac-Ljig should be completed by the end of 2017. From 258.7 kilometers from Belgrade to Montenegro, so far 40.4 kilometers from Ljig to Preljina have been put into operation, and the construction of 12.5 kilometers from Ub to Lajkovac has been completed. Works are currently underway at about 67.8 kilometers from Surčin to Ljig. It remains to arrange and sign a contract for another 147 kilometers, and the Serbian government expects that it will soon reach an agreement with partners from China with regard to the financing and construction of the first part of this route.

RAILWAY TRANSPORT

The share of rail transport in total goods flows on the Serbian market is between 10–15%. In 2014, despite the break in transport, 11,430,000 tons of goods were transported on Serbian railways, in 2016 – 13,199,000t. In Serbia, in 2016, there were 833 passenger coaches (59,000 seats) and 7,277 freight cars (carrying 411,000t). The power of the locomotives is 733 thousand kW.

The perspectives of rail transport are best seen in the fact that the maximum quantity of goods that could be transported to existing lines is 15 million tons of goods annually. Only when some of the key infrastructure projects are completed could statistics exceed the figure of 20 million tons.

On the territory of the Republic of Serbia, Corridor 10 (from Salzburg – Austria, to Thessaloniki – Greece) includes railways from Šid to Preševo. It is interesting that Corridor 10 makes up 20% of Serbia's entire railroad network, through which about 50% of rail transport takes place. A quick railroad from Belgrade to Budapest for Serbia is one of the most important projects from the Chinese project "One belt – One Road", because it is on the main route from the Greek port of Piraeus to central Europe. This is the port that has seen the highest traffic growth in the Mediterranean in recent years, which has three times higher transshipment than Koper, Rijeka and Trieste together. No one could have guessed earlier that Piraeus could be a serious competitor for the Central European market, but it turned out

that the positioning of a strong operator such as Cosco has led to such an opportunity. These trains from Piraeus for Czech Republic pass through Serbia in some 12 to 15 hours, the length of the trains is up to 550 meters and the carrying capacity of 1,200 tons (about 90 containers). From 2017 on this route, regular weekly trains run from Piraeus to Belgrade on Thursdays, and from Belgrade to Piraeus on Sundays. "Railways of Serbia" have a growing transport to the ports in Piraeus, Rijeka, Burgas and Bar. The number of transported containers on the railway-port lines is increasing year after year. During 2016, the ŽIT (Railway Integral Transport) transported a total of 4,800 containers.

In a global environment, the high degree of certainty, that is, the reliability of when and how the delivery will be performed plays a significant role in selecting a type of transport, which is as important as the delivery speed. This means a lot of improvement of the transport on Corridor 10, which is why the Serbian Railways have taken all the activities to make the container train Piraeus-Prague pass as quickly as possible through Serbia, without frequent stopping, as well as without a long stay at the border. This indicates the growing potential of Serbian rail and road transport in international transport.

Corridor 10, in length of 761km through Serbia, extends from the border with Croatia, through Šid, Belgrade, Velika Plana, Niš to the border with Macedonia. This line is electrified. Šid-Belgrade and Velika Plana-Niš are two-track lines except for certain sections that are single-track. The branch B, makes the Belgrade-Subotica railway line which is single-track and is electrified. The branch C, includes the Niš-Dimitrovgrad line and it is single-track and non-electrified.

Since 2009, around 90% of cargo worldwide has been transported by containers to transport ships; 26% of all container transshipments are carried out in China (see: World Bank).

Most flat wagons cannot carry more than one standard container of 40 feet (12.2 m) on top of the other because of the limited vertical distance, although they can usually carry a weight of two. Transport of half of the possible weight is actually ineffective. However, if the electric lines are built high enough, the train can include a container of double weight and still have enough space for another container at the top. This usually prevents the operation of double wagons on routes with overhead electrical lines.

COFCs (flatcar containers) are typically 89 feet long (27.13m) and carry four intermodal containers of 20 feet (6.10m) or two containers of 40 feet (12.7m) / 45 ft (13.72m). For example, the Feasibility Study of the project for improving the railway line Belgrade – Budapest [6], estimates that a container train of 740 meters in length could deliver up to 166 pieces of con-

tainers, under the assumption of the transport of light goods made in China. Bearing in mind that Piraeus and Kumpport jointly have a capacity of TEU 8.8 million per year, it is easy to calculate that the maximum (theoretical) possible load can be about 145 trains per day or 6 per hour, which is on the verge of planned or estimated capacity (for the stated section). In the case of the above inputs (data on flatcar wagons), the maximum load is 241 trains per day or 10 per hour. It should be kept in mind that not only freight container trains that have been studied use such a railway line but also passengers and other freight trains. The estimations are based on the assumption that the bulk of the cargo from these ports will be sent to Europe, in which case it would be oriented to Corridor 10. These are assumptions that will be confirmed or disproved over time. Currently, around 300,000 containers are planned to be transported annually in the next 3 years, which is still below the capacity of Serbian railroads and the condition in which they are today.

Today, only 10-12 trains use the mentioned route, and in the near future it is believed that on the Serbian side there should be 50 freight and 50 passenger trains daily or 4 per hour. This is still far below the existing port capacities.

Certain improvements will certainly be made by the computerized system for filling customs declarations, which will be operational by the end of 2017. and will speed up the existing customs procedures [7]. Some services have already been established. This will speed up the flow of trains at the borders.

There is, however, an additional problem, which is the replacement of a locomotive at borders that can be avoided if the train crews have knowledge of the English language. Staff recruitment, in order to meet the expected increase in train demand and staff training, among other things in English, should begin as soon as possible and represent one of the key issues. Practically in Serbia there are no engineers (train drivers) who could be employed and thus meet the increasing demand for trains.

ENERGY INFRASTRUCTURE

Primary energy consumption in the Republic of Serbia annually amounts cca. 15.5Mtn, out of which a half (50.7%) is coal consumption, then oil (23.7%) and to a lesser extent natural gas, hydropower and biomass (25.5%) [14]. As for electricity, in 2015, 35,912GWh was produced (coal-fired power plants produced 69,7%, hydro power plants 29,3%, TE-TO 0,1% and other energy sources – 0,9%). The final **electricity consumption** in 2015 amount-

ed to 27,073GWh (367,510TJ), out of which 7,105GWh (25,578TJ) in industry, in construction 318GWh (1,145TJ), in transport 351GWh (1,262TJ) and in agriculture 317GWh (1,140TJ). In comparison, household consumed 14,062GWh (50,624TJ). It can be concluded that electricity consumption for traffic purposes is only 1% of the total, current consumption, and that construction of new infrastructure capacities in this area should be considered only if the increase in rail transport really increased 5 or 10 times. However, one should bear in mind the general electricity deficit in the region of about 40TWh. The fact that Serbia is still able to meet its needs is not a guarantee that due to the additional lack the energy prices will not grow, and maybe lead to serious problems with the viability of transport.

The total final fuel consumption in TJ is 128,035, out of which industry consumption is 13,758, construction 1,076, transport 83,596 and agriculture 4,319TJ, which means that about 2/3 was spent in transport. As for oil and oil derivatives, the overall import of Serbia has been around 75% in the last few years.

Considering that the consumption of oil and petroleum products relates to all road vehicles, to a lesser extent on trains, the consumption of electricity in the transport mainly refers to rail traffic, somewhat less to GSP (trams, trolleybuses), we obtain a sectoral oil and electricity consumption per year, given in Table 3 [8].

Table 3. *Final consumption for energy purposes in transport RZS*

YEAR	ELECTRIC ENERGY – TJ	OIL AND OLI DERIVATES – TJ
2012.	1.771	74.328
2013.	1.721	80.425
2014.	1.210	85.185
2015.	1.262	83.596
2016.*	1.267	89.227

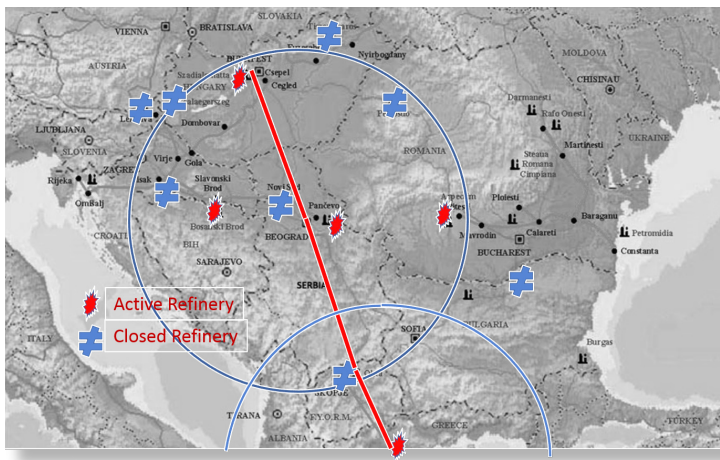
From the data presented, it can be seen that electricity consumption has fallen by about 40% since 2012, while oil and oil derivatives has increased by about 20%.

Of the 704 petrol stations in Serbia, covered by the “Report on Sectoral Analysis of Wholesale and Retail Oil Derivatives in 2015”, the Commission for Protection of Competition, there are currently 55 petrol stations on the highways [9].

The total consumption of oil derivatives in 2014 was about 3.52 million tons, out of which the consumption of motor fuels was about 2.10 million tons, where some 1 million tons of derivatives were imported. Predominantly were imported Euro-diesel and LPG, as well as smaller volumes of unleaded motor gasoline. In the structure of final consumption of petroleum products for 2015, industry participates with 17%, transport with 72%, and other sectors with 11% [17].

If we count the total consumption potential on Serbia's highways as a product of a number of cars on individual sections and the average fuel consumption on these sections, we come to the amazing figure of 800,000t/year. That is about one third of the total fuel consumption in Serbia or half of sold at gas stations. Of course, not all of this fuel is sold only at gas stations on the highways, but also in part in neighboring settlements or abroad, but the number is imposing. Practically, each percent of traffic growth on the highway will increase fuel consumption in Serbia for cca. 0.3%. Bearing in mind the aforementioned trends in motorway traffic growth (jump of 5-10% annually) this should certainly be taken into account when planning energy development in Serbia. The fact is that many refineries in the surrounding areas are closed and that the rest are working with reduced capacity. Any lack of processing capacity would result in fuel imports from distant regions, which would certainly affect the price, similar to that in the case of electricity. The situation is illustrated in Figure 1.

Figure 1. Active and inactive refineries in the region and logistic zones affecting the Corridor 10 through Serbia



Active refineries are marked with red, and their logistic zones (within a radius of 400km are considered to be profitable to sell fuel) with blue circles. Blue signs refer to closed or non-existent refineries. It is important to mention that the refineries Pančevo and Bosanski Brod still have a higher capacity than today's consumption, so in the next 10 years, keeping the same consumption growth, there will be enough fuel from local production capacities.

TELECOMMUNICATIONS

In particular, the railway system must be equipped with a data transmission system, a communications network, a telephone switching system, a wireless communication system (Wi-Fi), an emergency communication system, an integrated video surveillance system, clock and time systems, electric energy supply systems and lightning rods, environmental monitoring, cable and communication lines, etc.

Serbia's railways are working on the development of telecommunication systems, a good part has already been introduced, and part remains to be introduced for the purpose of improving both railroad management and the improvement of traffic safety.

The system for emergency telephone channels of the tunnels was established between the Central Station Novi Beograd and Zemun Station and is connected to the newly established Belgrade emergency control center via 2M channels.

An integrated video surveillance system has been introduced to track key areas and objects in real time, including communication, signaling, towing power, internal and external electric locomotives, station hall, tunnel exit and entrance, railroad, etc. In this way, telecommunications are an infrastructure sector that not only connects other sectors and affects their faster development but directly affects the growth of gross domestic product [15].

SECURITY OF CRITICAL INFRASTRUCTURE³

From a security point of view, it would certainly be desirable if more were done to build domestic production and processing capacities (especially oil shale), to build capacities for the production and transmission of electricity, and to create larger oil reserves, oil derivatives, gas.

Based on previous considerations, it is possible to clearly define the critical infrastructure in Serbia, from the point of view of the needs of the “*New Silk Road*”. It consists of:

- Refinery Pančevo, because without it there is no supply of motor fuels;
- 4 large and 27 smaller transformer stations that, if in some way they become disabled, they cease to supply the country with electricity;
- TE Obrenovac, TE Kostolac and HPP Djerdap as the main producers of electricity in the country;
- Road and railway bridges on the rivers Sava and Danube, because by their destruction the road, rail and river transport is disrupted (to this could also be added bridges and tunnels, but they are more of a regional significance);
- 6 airports with runways exceeding 2,000m; otherwise the landing of larger transport aircraft could be unfeasible;
- oil pipeline whose destruction would stop supplying oil;
- the main gas-pipeline from Hungary and the gas pipeline connecting the Gas Warehouse Banatski Dvor with the main gas pipeline, since without it part of the industry would stop and disrupt the supply of heat to all major cities in Serbia, which would have severe consequences for the country’s electricity system;
- oil and gas storage.

The protection of this infrastructure must be specifically regulated in order to protect it from the consequences of industrial accidents and natural disasters, but also in the event of terrorist or military attacks. This requires

³ Based on the practice of the USA [10], we can say that critical infrastructures of an organization of general social significance for a country, are the following:

- organizations dealing with water, electricity, oil, gas, food and medicine;
- organizations in the field of information and communication technologies;
- organizations in the field of transport;
- Institutions of judiciary and public order and security;
- state administration institutions;
- financial institutions;
- organizations of the chemical and nuclear industry;
- organizations in the field of space exploration.

a special set of measures that include both the development of regulations and plans, the application of modern risk-based maintenance methods, specific physical-technical protection measures, or the implementation of a wide range of preventive measures.

The Republic of Serbia, within the framework of the integrated protection and rescue system, organized by frame made in Ministry of the Interior – Emergency Situations Department [11], attaches importance to and protects critical infrastructure. The 2010 Law on Emergency Situations covered the area of protection of facilities of special interest, and in the first quarter of 2018 a new Emergency Situations Act and a special Critical Infrastructure Protection Act will be adopted.

The importance of critical infrastructure security is also reflected in the fact that most developed countries also introduce military capabilities as inevitable resources in the implementation of the protection policy. Developing the concept of civil-military cooperation⁴, the possibility of introducing intended modular military units, among others, for the protection of critical infrastructure [13], is also being considered. [12]

CONCLUSION

For the development of infrastructure, besides the economic factor, there are two more: 1) already existing transport network (which by the development of the market and transport does not have the same role as when built); and 2) the natural geographical position (which in the case of Serbia can be characterized positively). In Serbia, railway transport participates with 52.8%, road transport with 33.5% and river transport with 13.7%. From the above it can be seen that rail transport in the Republic of Serbia plays a dominant role in the transport of goods, which is, except for river traffic, in contrast to the EU-28 average, where the share of rail transport is 18.2% in total transport [17].

⁴ "Civil-Military Cooperation (CMC) includes all the activities of coordination and cooperation between the Army and civilians in the field in order to support the mission and tasks carried out by a military unit. In this case, civilians are: population, local authorities, local government and non-governmental organizations and international agencies, and agencies located in the zone of responsibility of the military unit. It can be concluded that the purpose of civil-military cooperation (CIMIC) is to establish links between military and civilian representatives at a certain level and space in order to contribute to the achievement of primarily military as well as common interests. The ultimate goal is -- to achieve realistic and usable benefits for the unit, to increase the security of its own forces and to establish trust between the Army and civilians."

The first step taken by the Chinese company Cosco, purchasing the majority stake of the Port of Piraeus in Greece and the establishment of the daily Piraeus-Czech lines, shows the serious intention to have the Balkans as part of the route “One Belt – One Way” or “New Silk Road”. Detailed analysis of transport, which inevitably follows the growth of the economy, shows that about 50% of the transit in the Republic of Serbia is done by rail and road Corridor 10. Increase in the number of rail and road means of transport leads to the increased consumption of energy products, primarily petroleum products and electricity. Investing in transport infrastructure requires the engagement of not only construction companies, but also energy and telecommunications, as well as service and tourism activities.

Serbia's import dependence for years has been: in the sector of oil and oil derivatives between 75-80%, natural gas 65% and electricity about 5-10%. Energy interdependence and sensitivity of infrastructure represent a real basis for endangering infrastructure security and a real challenge for the stability of the Republic of Serbia.

Infrastructure, procedures, regulations, geographical characteristics and problems play a major role in defining the strength of a country to pursue the needs of the global market whereby the chain of secure supply is supposed not to be endangered. Poorly developed infrastructure and inadequate transport organization represent a major obstacle to economic growth, increased productivity, competitiveness and employment, quick and quality exchange of goods and services not only within Serbia, but also in the international environment. A comprehensive infrastructure management process does not only include planning and design, but also maintenance because each element of the infrastructure system has its own lifetime (the period in which it becomes functional and/or technically obsolete). In this sense, infrastructure is part of the logistic system. The most important criteria for evaluating logistics support systems are: effectiveness, efficiency, elasticity, flexibility, cost, simplicity and mobility [16]. This includes maintenance, research, construction and reconstruction of infrastructure through an ongoing process. Therefore, it is necessary for Serbia, when implementing major infrastructure projects, such as the completion of the rail and road Corridor 10, to assess the capacity of transport infrastructure that will in the future be able to endure the needs of international trade and exchange. This especially if we consider the increase in the volume of trade between Asia and Europe.

For the same reason, attention should be paid to alternative routes such as Novi Sad-Sombor-Subotica-Horgos (from the Serbian side) and Horgos-Szeged-Budapest railways (in Hungary) in case the Corridor 10 route is overloaded.

Care should be taken to design a rail track with a sufficient vertical distance that can accommodate a vehicle with two rows of containers and thus increase the efficiency of container transport.

Procedures related to transport operations (change of towing vehicles and personnel) and border control operations (police, customs, sanitary and phytopathological examinations) cause long stops of international trains. This question must be given full attention.

When it comes to transport, energy and telecommunication infrastructure, the politicization of the problems has contributed to discussing security issues on two levels, economic and political. From an economic point of view, the development of infrastructure affects the growth and development of the economy, the stability and security of the market, while the politicization of the problem opens the space for the emergence of a security dilemma. That is why the *New Silk Road* should be viewed from all aspects, not only economic, but also security and geopolitical.

LITERATURE

1. Zero Hedge, (Nov 15, 2017) "China's Mysterious Arctic Silk Road" Preuzeto sa: <https://oilprice.com/Geopolitics/International/Chinas-Mysterious-Arctic-Silk-Road.html>
2. http://www.coscopac.com.hk/en/investor.php?class_id=43
3. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=mar_go_aa&lang=en
4. Republički zavod za statistiku, „Statistički godišnjak R. Srbije za 2017.” – Saobraćaj, preuzeto sa: <http://www.stat.gov.rs/WebSite/repository/documents/00/02/64/08/15-Saobracaj.pdf>
5. JP „Putevi Srbije”, „Godišnji izveštaj za 2016. godinu”, preuzeto sa: www.putevi-srbije.rs/images/pdf/suiss/UISS_godisnji_izvestaj_2016.pdf
6. Studija izvodljivosti projekta unapređenja železničke pruge Beograd –Budimpešta, 2016
7. <http://www.upravacarina.rs/cyr/Servisi/ElektronskoPodnosenjeDokumenata/Stranice/ElektronskoPodnosenjeDokumenata.aspx>
8. Ministarstvo rudarstva i energetike, „Energetski bilans Republike Srbije za 2017. godinu”, str. 3, Preuzeto sa: <http://www.mre.gov.rs/doc/efikasnost-izvori/EN%20BILANS%20ZA%202017%2012.12.2016.pdf>.
9. Komisija za zaštitu konkurencije, „Izveštajem o sektorskoj analizi tržišta na veliko i malo derivatima nafte u 2015”, str.11, preuzeto sa: www.kzk.gov.rs/kzk/wp-content/uploads/2016/01/sektorska-analiza-trzista-nafte-2014.pdf

10. Marsh. (2017). "Critical Foundations: Protecting Americas Infrastructures". Preuzeto sa: http://cipp.gmu.edu/clib/43_TheMarshallInstitute-CriticalFoundationsProtecting.htm, 5. april 2017.
11. Marić P., Jeftić Z. i Žugić S. (2013). Experiences in the Operation of New Protection and Rescue System in Serbia. in National Critical Infrastructure protection-Regional Perspective, International Scientific Conference, p. 145 Belgrade: University of Belgrade – Faculty of Security Studies and Institute for Corporative Security Studies Ljubljana.
12. Jeftić Z., Civilno-vojna saradnja – nova funkcija Vojske, Vojno delo, Vojno-izdavački zavod Beograd, br. 2/2009, str. 105.
13. Milinović M. i Jeftić, Z. (2013). Challenges of National Defence in International States and private Corporative anagement of Infrastructure Protection. p. 125, in National Critical Infrastructure protection-Regional Perspective, International Scientific Conference. Belgrade: University of Belgrade – Faculty of Security Studies and Institute for Corporative Security Studies Ljubljana.
14. Mišev G., (2017) "Energetska efikasnost i obnovljivi izvori energije u funkciji privrednog razvoja", str. 5–11, Centar za multidisciplinarna istraživanja i komunikaciju – CMIK, Beograd.
15. Mišev G., Kaloserović M. (2017), "Telekomunikaciona infrastruktura u službi nacionalne privrede", Tehnika i praksa, TIP broj 17, str. 87–97, VŠTTS, Čačak, ISSN: 2217-2130, COBISS.SR-ID: 174754812
16. Mišković, V., Stanojević, P., (2001) „Logistika – savremeno tumačenje i dileme”, Vojno delo, br.6, str. 141–156.
17. Stanojević P., Mišković V. i Mišev G. (2017), „Nacionalna logistika i bezbednost”, str. 277–298, Fakultet bezbednosti, Univerzitet u Beogradu.