

peace among the peoples of the world. The relations between Serbia and Croatia are very important for the stability of Southeastern Europe. The violent breakup of Yugoslavia at the beginning of the 1990s destroyed and severed the relations between two largest Yugoslav republics, and more importantly, relations between Serbs and Croats. Tourism development can be an efficient means for promoting peace in both these countries. In recent years, the tourism development strategy of Croatia has included efforts in trying to evoke the nostalgic and other forgotten

feelings that Serbian tourists have with regard to Croatian islands and beaches. The fact that the number of Serbian tourists continued to grow over the years, especially on the Croatian Adriatic, best speaks of the success of that strategy. This paper presents the result of a survey that was conducted in 2012 on 850 residents from Serbia. The study is focused on determining the image that Croatia has with potential tourists from Serbia, and the level of their awareness of Croatian tourist offer.

Key words: Croatia, Serbia, tourism, destination image, perception

The role of police in achieving security on the Danube as international waterways in Serbia

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Danube as an international navigable river in Serbia and water main roads of central and southeastern Europe, despite all of its advantages it contains one of the kind of components suitable for performing criminal activities (general, economic and organized crime and terrorism). Also, it can happen flooding, traffic accidents, fires and accidents that require the involvement of specially trained first responders. In addition, the specificity of the police work aimed at achieving security of the Danube, directly contributed to the development of police organization and in this segment. It is, therefore, a separate organizational unit of Serbian police such as river police, border police, gendarmerie specialized units (divers) and fire-rescue units

with fire boats, trained and equipped in order to take preventive and repressive measures and actions in order to preserve security on the Danube and the actions of protection and rescue of people, material and cultural resources and the environment.

Considering the international, cross-border, security-protective, water management, transport, tourism, sports and recreation, hunting and other issues on the river Danube, the authors present the possibility of an integrated security management at international navigable rivers. Specifically, the paper introduced the modern concept of the security management of the overall creative and destructive anthropogenic and natural phenomena and processes that are manifested in

the international waterway (river) road, and are related to the joint efforts of police, customs, inspection services, port authorities, emergency medical, army, line ministries and other state agencies, water management companies, local authorities, social organizations and citizens. As part of continuous professional training of police officers to perform police duties and their actions to safeguard the security of the international water-

way, the authors emphasize the importance of two-way cooperation between the police and the teaching and research institution engaged in geospatial, hydro-technical, meteorological, information and communication traffic, water supply and other research in the field of the issues in question.

Key words: Police, Danube international waterway, the realization of security, integrated management

Water quality monitoring system on transboundary watercourses

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The role of waters – as a strategic resource – has greatly appreciated from social, environmental and economic aspects. Transboundary river courses and river catchment areas are not restricted to the geographical territory of a particular country, thus the parameters characterizing water bodies (pollution and conditions resulting from geological attributes) cannot be restricted to the territory of the country, either. During the implementation of the transboundary monitoring plan, should be taken into consideration the particular aspects characteristics to each involved

country: different cultures, standards, local regulations and technical levels. In order to elaborate the required programs all these information are needed.

Remote-controlled automatic on-line monitoring systems provide more useful and continuous monitoring capabilities by providing accurate data on change in water quality in real time. Technical considerations, which are worthy to be included in the analysis of such kind of systems, are addressed: the system structure (number, type and location of water quality monitoring stations), number and type of measured in-

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THE ROLE OF POLICE IN ACHIEVING SECURITY ON THE DANUBE AS INTERNATIONAL WATERWAYS IN SERBIA

Abstract: Danube as an international navigable river in Serbia and water main roads of central and southeastern Europe, despite all of its advantages it contains one of the kind of components suitable for performing criminal activities (general, economic and organized crime and terrorism). Also, it can happen flooding, traffic accidents, fires and accidents that require the involvement of specially trained first responders. In addition, the specificity of the police work aimed at achieving security of the Danube, directly contributed to the development of police organization and in this segment. It is, therefore, a separate organizational unit of Serbian police such as river police, border police, gendarmerie specialized units (divers) and fire-rescue units with fire boats, trained and equipped in order to take preventive and repressive measures and actions in order to preserve security on the Danube and the actions of protection and rescue of people, material and cultural resources and the environment.

Considering the international, cross-border, security-protective, water management, transport, tourism, sports and recreation, hunting and other issues on the river Danube, the authors present the possibility of an integrated security management at international navigable rivers. Specifically, the paper introduced the modern concept of the security management of the overall creative and destructive anthropogenic and natural phenomena and processes that are manifested in the international waterway (river) road, and are related to the joint efforts of police, customs, inspection services, port authorities, emergency medical, army, line ministries and other state agencies, water management companies, local authorities, social organizations and citizens.

Key words: police, Danube international waterway, the realization of security, integrated management.

1. Introduction

The Republic of Serbia is a country rich with numerous and relatively large rivers, some of which flow through its territory. In other words, some of them are national, and some international and very important for water transport of Serbia and the countries of Eastern and Central Europe. In the context of their importance for water transport, the most important are the Danube, Sava and Tisa. Compared to the national geospace, it is covered by the following regional police administrations: Belgrade, Novi Sad, Kikinda, Zrenjanin, Sremska Mitrovica, Šabac, Pančevo, Smederevo, Požarevac and Bor, as well as the

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organizational units of the Police Directorate, Ministry of Internal Affairs of the Republic of Serbia (hereinafter referred to as the Police Directorate of the MoI, R. Serbia) through which these rivers flow.

In addition to the security that needs to be achieved in relation to the activities related to water transport, mentioned three rivers form the natural border that conditions other specific activities in order to maintain security. The total length of the state border of the Republic of Serbia amounts to 2.352 km. Of the entire length of the border line, 697 km is a natural boundary. As an example, of the total 174.7 km long border with the Republic of Hungary, a natural border that is made by the river is 4.7 km long; to Romania of the total 547.9 km, the natural boundary of the river is 257.3 km long; to Bulgaria of the total 360.4 km, the river forms 16.9 km; to Macedonia of the total 283 km, 1.7 km is on water (Stefanović, Gojaković & Miladinović, 2010: 110).

Thus, the natural border of the Republic of Serbia consists of three international navigable rivers, the Danube towards Croatia and Romania, where the navigation regime is regulated by the *Convention on the Regime of Navigation on the Danube*, Sava - to Bosnia, where the navigation regime regulated by the *Framework Agreement on the Sava River Basin with Annexes and Protocol on the Navigation Regime* and Tisa, where the navigation regime is regulated by a bilateral agreement with the Republic of Hungary. Also, the navigable boundary is formed by the river Drina to Bosnia, which is not an international waterway. In addition, of open 71 border crossings, 10 border crossings are international river-crossing points (Integrated Border Management Strategy in the Republic of Serbia, 2006: 12).

The Danube is the longest river in the European Union and the second longest river in Europe after the Volga. It rises in the Black Forest and arises from small rivers the Berga and the Brigah at town of Donaueschingen. The Danube is about 2850 km long, flows through several central European capitals, and through Serbia flows for 588 km before enter the Black Sea through the Danube Delta in Romania and Ukraine.

The Sava is the third longest river, and by flow is the largest tributary of the Danube. Length of the Sava from its spring in the mountains of western Slovenia to the mouth into the Danube in Belgrade is about 944 km. It flows through four countries (Slovenia, Croatia, Bosnia and Herzegovina and Serbia) and connects the three major cities and four countries: Ljubljana in Slovenia, Zagreb in Croatia and Belgrade in Serbia.

The Tisa River is the largest left tributary of the Danube. It flows through the Pannonian Plain. It rises in Ukraine, in the Carpathian Mountains in the area of Bukovina, and continues through Hungary, Romania, Slovakia and Serbia. It flows into the Danube opposite the Stari Slankamen. The total length of inland waterways in Serbia at the average water level given in Table 1 is about

1,680 km. Terms of navigation on the rivers are different, depending on the size of the vessel.

Table 1: Summary of the length of the inland waterways of the Republic of Serbia for vessels of certain capacity (Source: The Statistical Office of the Republic of Serbia, Bulletin Transport, storage and communication for 2010)

	Дужина пловних путева, км за бродове носивости до: ¹⁾				
	150 t	400	650	1500	3000 t и више
Дунав	588	588	588	588	588
Сава	211	211	211	211	-
Тиса	164	164	164	164	-
Тамиш	41	3	3	3	-
Бегеј	77	77	77	31	-
Пловидбени канали Дунав–Тиса–Дунав	342	321	321	-	-
Бечеј – Богојево	90	90	90	-	-
Нови Сад – Савино село	39	39	39	-	-
Врбас – Бездан	81	81	81	-	-
Ојаци – Сомбор	28	28	28	-	-
Бачки Петровац – Каравуково	52	52	52	-	-
Пригревица – Бездан	31	31	31	-	-
Руски Крстур – Мали Стапар	17	-	-	-	-
Косачић – Руски Крстур	4	-	-	-	-

¹⁾ При нормалном водостају

Length of waterways for ships with capacity up to 150 tons is 1419 km (of which approximately 25% refer to the channels), and for ships with capacity up to 1500 tons, 993 km. Only on the Danube during the entire length of 588 km it is enabled navigation of the all types of river ships, and all the waterway of the Sava and the Tisa, for ships up to 1,500 tones, while in other rivers and DTD canal, navigation is very limited. The main connections of Serbia across the Danube are achieved upstream with Croatia, Hungary, Slovakia, Austria and Germany, and downstream with Romania, Bulgaria, Moldova and Ukraine. Connections on the Sava River are realized with Croatia and Bosnia and Herzegovina, and on the Tisa with Hungary (The Statistical Office of the Republic of Serbia, Bulletin Transport, storage and communication for 2010).

Bearing in mind the commodities represented in the inland waterway transport (Table 2), clearly there is a need for controlling the goods for the purpose of identifying and prosecuting the perpetrators who misuse this kind of transport to gain illegal benefits.

Table 2. Summary of the goods transported via inland waterways through Serbia. Source: The Statistical Office of the Republic of Serbia, Bulletin Transport, storage and communication for 2010.

	Укупно	
	t	кm, хилъ.
УКУПНО	1951508	875011
Производи пољопривреде, лова и шумарства; рибе и остали производи риболова	139957	131812
Житарице	138322	130616
Производи шумарства и експлоатација шума	655	88
Остали производи биљног порекла	980	1107
Угаљ и лигнит; сирова нафта и природни гас	72546	59698
Угаљ и лигнит	72546	59698
Руде метала и остали производи вађења руда и камена; тресет; руде уранијума и торнијума	1273861	418650
Руда гвожђа	240786	255212
Со	4502	4121
Камен, песак, шљунак, глина, тресет и остали производи вађења руда и камена	1028593	159317
Кокс и рафинисани нафтни производи	425321	230023
Кокс и катран	18047	7386
Течни рафинисани нафтни производи	406163	222636
Чврсти или густы нафтни производи	1111	
Хемикалије, хемијски производи и синтетичка влакна; производи од гуме и пластике; производи нуклеарне индустрије	6108	7277
Базни органски хемијски производи	1998	2452
Азотни производи и ђубрива (осим природних ђубрива)	4110	4825
Остали производи од неметалних минерала	11277	8846
Цемент, креч и гипс	2542	1218
Остали грађевински материјали, прерађени	8735	7628
Базни метали, производи од метала, осим машина и опреме	22437	18705
Производи црне металургије и феро легура и производи основне обраде гвожђа и челика (осим цеви)	19519	15840
Метални производи за грађевинарство	2918	2865

It is important to note that the activities in the field of water transportation and navigation safety are within the jurisdiction of the Ministry of Infrastructure and a priority task of Sector for water traffic and security of navigation and port authorities as narrower internal units outside the headquarters of the Ministry of Infrastructure² and that the role of police and Ministry of Internal Affairs in general in this area is secondary, but certainly significant, especially in terms of prevention of criminal offenses, violations, economic offenses and other illegal activities. It will also be an issue that is discussed in the next section of the text, and it will **mostly** refer to the geographical space covered by the Police Administration in Belgrade, which also has the most complex and most diverse security issues in international navigable rivers. Also, in the next part of the paper we will discuss the role of river police, first responders and gendarmerie in achieving security on the inland waterways of treated geospace.

2. Forms of endangering safety on rivers in Serbia

It can be said that there is no geographical space that can not be used by perpetrators of crimes and offenses³ for illegal, criminal activities. In addition,

² Law on Ministries, Off. Gazette of R. of Serbia, no. 65/08, and website of the Ministry of Infrastructure, <http://www.mi.gov.rs/nadleznosti.htm>. Accessed: 06/27/2014. Misconception is that “water police” in water transport is the same as “traffic police” in the road traffic. The implementation of the provisions of Law on navigation and inland waters and regulations adopted under the Act, which regulate the safety of navigation, is supervised by the Ministry of Infrastructure, while inspections are conducted by the Ministry, that is, safety inspectors, which is defined in Articles 245 and 246 of the said Act.

³ Violations in the field of water transport, very often, are the cause of the offence of the Law on public order. For example violation of raising waves in places where it is forbidden, is manifested by the fact that a wave that lifts the vessel causes damage to the owners of other vessels, which is reflected in damage to parts of the vessel, damage to other items on the vessel or injury to persons

they will greatly adjust their activities to these circumstances in order to minimize the chance of being discovered, and maximize their profits. Therefore, inland rivers represent an adequate environment for the emergence and spread of a variety of criminal activities. However, the crimes of illegal trade are socially most dangerous.

On inland waterways, the most common are trading of oil and oil products, human trafficking, fertilizers, grains, transport of drugs and other types of crimes and violations. As the perpetrators appear different categories of people who are well equipped and organized. They have large capacity vessels, often with built-in tanks for liquid cargo, and powerful motor pumps, equipped with powerful outboard engines. At the same time, they possess quality communication devices, by which communicate with each other and with the ships, but to some extent they have the ability to eavesdrop on conversations of authorized employees of the police. They have a large number of vehicles (trucks, tanks, tractors) which transport goods from coast to customers. As a *modus operandi*, it is interesting to note that the above mentioned perpetrators work in the late evening or early morning hours, which means that they are equipped with night vision devices. To carry out their criminal activities they use many people, associates who besides direct participation in the crimes, monitor wide geographical space visually and with the help of technical means, and in case of an emergency, enable the direct perpetrators to quickly escape. Mentioned mobility, allows them to conduct criminal activities outside the area of their residence. In addition to the criminal offenses of theft from foreign and domestic ships and barges, there were also cases of forgery and use of forged notes in transactions with foreign shippers. There have been numerous thefts of ore, coke, electromotor from barges, boats and outboard motors. There is also a phenomenon of fishing by electricity and explosives (Stefanović, Gojaković & Miladinović, 2010:113).

Observing the manner and degree of organization of the perpetrators of these crimes it can be seen some primary elements of organized crime such as the existence of permanent criminal organization; rational criminal activities; making profit as the ultimate goal of criminal activities and the use of force or threats or resort to corruption in order to realize the goals and the preservation of immunity from the application of law (Mijalković, 2009: 120).

In the area of international navigable rivers in Serbia are not negligible cases of criminal offences in field of property, economic and ecological crimes, crimes against public health, and crimes and offences with the elements of violence, most often: theft, grand larceny, fraud, various forms of forgery, unauthorized practice of certain activities, illegal hunting and fishing, timber

who are on the vessel, and often fall of person into the water. Such events cause resentment and reaction of citizens causing very often disruption of public order.

theft, illegal production and trafficking of narcotics, illegal possession of narcotics, serious and slight injuries, acts of violence, disruption of public order and peace in the cultural and sporting events, rafts, swimming areas and walkways and the like. Offenses in the area of property crimes are characterized by the most common committing in urban and economically developed areas, and offences in the field of economic crime are related to the operations of business entities that use waterways for their activities. Offenses in filed of ecological crimes are usually carried out in the areas of international maritime zone of navigable rivers and its coastal areas that are remote, outside urban areas, so that the perpetrators of acts would be unnoticed. Crimes and violations with elements of violence are usually committed in the restaurants on the water (rafts), as well as in front of the restaurants.

Although recently it was not recorded severe forms of threat to the security of the international navigable rivers, certainly we should not ignore endangering the safety of infrastructure (bridges - road, rail and pedestrian, ports, docks, winter ports, lighthouses and floating marks, water wells, fuel loading racks, etc.), buildings and personalities of vital importance to the state (protected person, representatives of the highest state institutions, diplomatic corps, foreign delegations, celebrities and the like., as well as the objects of their stay in the water), safety caused by the influence of natural phenomena and various hydrometeorological conditions (natural disasters - floods, ice, and technical hazards - fires, explosions, etc.), the possibility of endangering the safety by terrorist acts and the like, as well as the activities of members of the MoI of Serbia to preserve security.

3. The role of river police in achieving safety on inland waterways

The Police Department of the City of Belgrade has a police office for safety on the rivers in Belgrade (hereinafter referred to as river police). River Police in Belgrade was founded in 1946, titled Ninth National Police station, and in the early seventies it was named 22nd police station for river traffic. It was granted with expanded jurisdiction in 1986 when it was renamed as the Police station in the border control. In 2006, it received name of the police office for safety on the rivers. Today there are dozens of police officers in uniform. Bearing in mind the necessity of the presence of police in river traffic within its jurisdiction is 85 km of the Danube River and 62 kilometers of the Sava River, as well as the 226 km of coast of both rivers that make up the international flow. Work is carried out on both rivers and the police take care of the security of property, plants, and facilities over the water, by the water and on the water. ⁴ The police office for safety on rivers, takes all measures within the jurisdiction

⁴ See more at: <http://recepatolicijasgpss.org.rs/o%20nama.html>, accessed 6/25/2014

of the Ministry of Interior of the Republic of Serbia in order to achieve public safety. That is exactly why it takes urgent measures that are necessary to eliminate an immediate hazard for people and property when these measures can not be timely undertaken by other authorities that are immediately notified. They also provide all the necessary assistance to other government authorities, local governments, companies and individuals in cases of general dangers caused by natural or technical accidents and other forms of threats. More precisely, the specific security tasks of river police are monitoring and protection of facilities of general interest such as bridges, water supply facilities, industrial plants in coastal areas; participation in the rehabilitation of eco-toxicological disasters and accidents; providing aid and assistance to other state agencies and entities in the security system; protection of public meetings, sporting and cultural events in the water or along the coast; saving the people when attempting suicide and other marine accidents or breakdowns; finding and participating in clean-up of human and animal corpses; other tasks and duties within the jurisdiction of the MoI of Serbia during emergencies.

In other words, while performing activities of security on rivers, police officers on a daily basis receive and carry out tasks according to the security assessment and planned and anticipated events, which are reflected in the operational work, preventive presence in the field, observing, detecting and identifying places (facilities, environment, etc..) and factors threatening security and criminal activity, gathering information and submitting operational information on all the information that indicate to prepared or committed criminal offense, as well as offenders, taking operational measures and actions in order to capture the perpetrators of offences in the place of commotion, performance of the searching activity, which refers to the search for persons, vehicles, and other objects for which the search was issued, preventing disturbance of public order and violent behavior, taking the necessary measures for the protection of persons and facilities, as well as buildings of special important, observation and control of the facilities on navigable rivers where it may lead to unauthorized landings or to commit the violations, criminal offenses or other criminal activities, control of movement and residence, as well as many other tasks depending on the specific needs of the service.

In order to perform the tasks specified by law, police office for the safety on the rivers and members of the river police use boats as primary means for performing the tasks in water and coastal areas. Since in most cases the interventions are performed out of the fairway under difficult conditions in places where sailing is strictly prohibited for all participants in water transport, the crew of the patrol boats have additional mental and physical load. Due to specificity of the job and to protect the safety of police officers, providing technical resources of equipment, police office for safety on the rivers implement special measures in the field of education and training of police officers to raise

the level of professional knowledge in the field of navigation and rules of navigation compared to knowledge that are needed for boats that sail in favorable weather conditions and the known dimensions of the water.

In matters within their direct jurisdiction, river police is actively involved in carrying out search and rescue functions, and providing first and immediate assistance to people in need, so that during 2005, 15 people were rescued from certain death, while in 2006 17 and in 2007, 12 people (Department for analytics, MoI of Serbia, 2008).

Thus, for example, on 15th June 2014, water police and fishermen pulled out from the Danube I.R. (59), who had tried to kill himself by jumping from the Pančevo bridge, and handed him over to the ambulance service.⁵ In addition, members of river police daily visit rafts to ensure a satisfactory condition of security of visitors and staff.⁶ Also, a significant part of the work relates to the rescue of people who try to commit suicide. For instance, during the 12th June 2011, at 2:30 pm one person jumped from the old railway bridge, which is 36 m high. After the jump, he did not try to swim out to the coast, but left himself to be carried away by the cold water of the Sava. River police observed timely the entire event and by early intervention his life was saved.⁷ Then, on 3rd September 2012, one person drowned around 9 pm after fishing near the dock on the Sava. Members of river police several hours searching for drowning victim.⁸

River Police has some problems in their work, that is, in the field of logistics security. The river police do not have sufficiently adequate uniforms, belts and shoes for different seasons. The sake of comparison, the river patrol police in the Danube countries have lightweight cotton uniforms for summer conditions, then cap, shoes or sneakers and impregnated uniforms for winter and rainy conditions. Also, they are equipped with belts of lightweight ballistic fabric with a "Glock" pistol, which is made of plastic except the upper cover and the pipe. Moreover, batons should be located on a boat or ship, not to be worn in the belt by a policeman because they are heavy and can impede him during rescue a

⁵ See more at: <http://www.24sata.rs/vesti/beograd/vest/skocio-sa-pancevackog-mosta-spasili-ga-alasi-i-recna-policija/139844.phtml>. <http://www.24sata.rs/vesti/beograd/vest/reporteri-24-sata-sa-recnom-policijom-o-zurkama-na-rekama-brinemo-celu-noc/119900.phtml>

⁶ See more at: <http://www.24sata.rs/vesti/beograd/vest/reporteri-24-sata-sa-recnom-policijom-o-zurkama-na-rekama-brinemo-celu-noc/119900.phtml>. <http://www.24sata.rs/vesti/beograd/vest/reporteri-24-sata-sa-recnom-policijom-o-zurkama-na-rekama-brinemo-celu-noc/119900.phtml>

⁷ See more at: <http://www.24sata.rs/vesti/beograd/vest/covek-skocio-sa-starog-savskog-mosta/1254.phtml>. Accessed: 06/27/ 2014

⁸ See more at: <http://www.24sata.rs/vesti/beograd/vest/utopio-se-pecaros-u-savi/53792.phtml>. Accessed: 27/06/2014.

drowning man. There is a problem of insufficient number and performances of boats, which police possess or are supposed to possess.⁹

In addition to addressing listed regular security tasks, river police have an important role in emergency situations. Thus, in emergency situations caused by natural disasters and technical accidents, the role of river police would refer to: emergency response by patrol boats with related equipment in place of emergency; providing assistance and rescue of vulnerable people - especially their evacuation and care; protection of small boats from sinking; providing all kinds of technical assistance; finding certain important objects and parts; detection of potential perpetrators and those who have already committed a crime in such an emergency situation; discover, clarify and prove offenses; informing the competent authorities; assist inspectors for environmental protection and control. Members of river police in carrying out their task are working with Customs, inspection services, port authority, gendarmerie, Special Anti-Terrorist Unit, ambulance, local authorities and citizens.

More specifically, the role of river police in emergency situations, can be seen in the example of the disastrous floods in Serbia in May 2014. The members of the river police of Police Administration in Belgrade were the first in the boats when the weather woes began to ravage the municipalities Lazarevac, Beograd and Rakovica. More than 70 members of this unit were wearing their uniform for seven days and nights during the intervention. There were no recorded cases of someone refusing to perform his duties even though they had complex conditions of the rescue and the lack of material and technical equipment that if even was complete could not answer on the effect of catastrophic floods (Milojković Mladan, 2010: 172). In addition to regular duties, members of river police assisted the rescue team who came from Russia. In each of the 15 Russian boats, one Serbian policeman was sitting as a river guide and coordinator of care and rescue.¹⁰

4. The role of first responders in achieving safety on inland waterways

The most common security problem faced by members of the first responders to protecting and saving on water, refers to the fires and certain

⁹ See more at: <http://www.pressonline.rs/info/politika/174139/recna-policija-ima-samo-jedan-camac.html>. Accessed: 27/06/2014

¹⁰ In addition to the river police, an important role in protection and rescue from the flood in May 2014 had the following units of the Police Directorate and police higher education institutions that were engaged daily: Gendarmerie (580 people), special-terrorist unit (113), anti-terrorist unit (74), border police department (56), criminal police department (50), The Academy of Criminalistic and Police Studies (498 student volunteers, and the twenty teaching and non-teaching staff) (Report on the natural disaster, 07/04/2014).

extraordinary events surrounding vessels. At the same time, the fire extinguishing on rivers is very specific for a number of reasons. First, because water is very specific for deployment. It is impossible to stop the ship in place without an anchor, and it is mandatory to moor for the boat that is extinguished. Depending on the causes of possible accidents, various means are applied, beginning with the water that is ejected from the cannon to powder fire extinguisher. During the fire water always penetrates into the hold when it has to be taken into account that if a ship that is extinguished start to sink it should to cut rope preventing fire boat from pulling down by burning ship.

All methods used in firefighting facilities and areas on land and rescue the injured are also used here on water. In some situations, it also applies techniques that if the water penetrates into the lower deck, the same is pumped out to prevent sinking. This is done in the timeframe necessary to implement the evacuation procedure or to pull a boat to shore, depending on the assessment of the commander of the fire boat. If needed to patch up specific hole to prevent further ingress of water into the hold, we use the method of cloths and pack grease that is put into place of water penetration, and over it a board that is supported by an object. People who are found during the action for protection and rescue, are treated very quickly and they are evacuated to the fire boat. At the same time, they require professional medical care by either the ambulance, which was brought in by boat or by workers of first responders who are also trained to provide first and immediate aid.



Figure 1. Boat firefighting with name „Fireman”..

Major problems in achieving security on rivers arise when it comes to oil spills in rivers. The problems are not only related to financial losses but also the problem of environmental pollution. In fact, there are problems related to remediation of spilled oil quantity, that is, removing of this big or a small amount of oil from the river because a certain amount of oil goes down, dissolves and it is impossible to remove. For all the remaining quantity of oil spills on the water surface it is sprayed powder that within a certain time period is bound to oil and converts into gelatinous mixture that can be removed by shovels; and we use floats that sink to half height of their bodies closing the circle of oil so that it remains in a condensed form. After that, the specially prepared oil can be ignited and a large percentage of the oil will burn. Legal or natural person accountable for leaking of such quantity of oil is charged with criminal offence or misdemeanor, depending on the weight of consequence. Authorities receive reports on any such events and they have jurisdiction for environmental protection and ecological safety, who then take some measures within their jurisdiction in accordance with the *Law on Environmental Protection*.

Within the Fire and Rescue Brigade of Belgrade, Department for Emergency Situations of Ministry of Interior of Republic of Serbia, there is a ship, "Fireman", which is unique in the region by its appearance and functions. In addition to extinguishing it is used for rescue operations (Figure 1). During the 1990s, its crew drew 200 people from waves of the Sava and Danube, for which the ship received a plaque, "The achievement of soldiers". It is equipped with water cannons that in a minute throw up to 10,000 liters of water, as well as reflectors that could illuminate half a football field. Crew who manned the ship, for 34 years have rescued about 500 people.¹¹ "Fireman" is a shallow hull and can dock along the bank or along the burning boat, raft or barge.¹² It has three engines with total of 1,200 horsepower. The maximum speed is 35 kilometers per hour, which is a good result for powerboats, let alone a ship that weighs 92 tons. The boat can also be a mini hospital, and the platform can be organized as a center for resuscitation. It is adapted for underwater exploration and extraction of mine. At the front are the cranes that can lift up to a tone of the burden. The ship has 12 ports for charging fire tankers. It sues water from the river. Filling a tank takes about two minutes, which facilitates the work of firemen-rescuers on land.

In the last ten years "Fireman" participated in several interventions, namely: in the "Port of Belgrade" in 2004, when the ship "Ljubica" capsized, loaded with iron and oil, and fire extinguishing in 2007 on the ship "Krajina"

¹¹ See more at: <http://www.politika.rs/rubrike/Beograd/Brod-Vatrogasac-u-ferari-bojama.lt.html>. Accessed: 06/25/2014.

¹² Exactly such a „structure“ allowed him to get close to the raft „Groš“ that in June 2013, in the middle of the night turned into an inferno and to execute protection and rescue.

(which was sailed by both the king and marshal), the struggle with blaze at the ship-restaurant "Stara Stenka" in 2010, and others.

5. The role of the gendarmerie in achieving safety on inland waterways

Within the Gendarmerie as an organizational unit of the Police department of MoI of the Republic of Serbia, operates a diving center, which was formed in 1996 as part of the Special Operations Unit. After the dissolution of the unit, it has been taken by a special unit of the Gendarmerie. The diving unit of the Gendarmerie was formed in 2003, and it for the first time unified divers from several police forces. This solution was the most logical because it allows better training and logistics. The unit is known for its patrol boats, "Vuk 1" and "Vuk 2", which are inherited from the Special Operations Unit. By systematization in December 2011, a diving center came under the command of Rapid interventions Detachment.

Diving center of Gendarmerie consists of three teams: diving-intervening, diving-searching and nautical team (hereinafter referred to as the diving team).¹³ The competence of this team is all people and objects that are of interest to the police, and are on the waterways of the Republic of Serbia or in their vicinity. Team members are trained for reconnaissance and intelligence as well as intervention activities with elements of demolition.

Diving team of Gendarmerie is the only unit in Serbia specialized in all kinds of action under the water. Deprivation of liberty of dangerous perpetrators on water, search and extraction of the drowned, extracting objects used to commit a crime, counter-diversion inspection of objects on water, are the jobs for which are responsible members of the diving team of the Gendarmerie. Members of this unit are ready at any time to go to the most serious interventions in Serbia. They also perform tasks such as counter-diversion inspection of ships, accompaniment of ships with hazardous materials, and security of persons on board. The complexity of the tasks and duties of this team is shown in the fact that its members perform tasks such as extraction from rivers and lakes drowned or killed persons, bombs and other unexploded ordnance, and also after the commission of a crime nearby the rivers or lakes, based on the requirements of the Criminal Police they search sometimes for subjects used during the commission of the above offenses. In such situations, search the bottom of the field is done by hands (touching) because in the geographic space of the entire Serbian there is low visibility under water. During 2012, team members had more

¹³ See more at: [http://www.specijalne-jedinice.com/Ronilacki-centar Zandarmerije](http://www.specijalne-jedinice.com/Ronilacki-centar_Zandarmerije). Accessed: 06/27/2014.

than 65 interventions of taking the bodies out, and almost all drowned were non-swimmers, mostly children.¹⁴

The Gendarmerie has equipment for light heavyweight divers, which consists of "dry" suit and special helmet, which has a communication system with the surface, and can be equipped with lights and a camera. Diving center of Gendarmerie still has no sonars - devices that locate objects in the water. Sonars are very valuable when searching for the bodies of the drowned, because these devices make the search more rapid. They are necessary and very important for the efficiency of the many police interventions. Divers use commonly compressed air in bottles, but also the gas mixture "trimix" and "nitrox" when diving to greater depths. Rivers in Serbia are in most of the flows deep from six to 12 meters, but police divers operated in lakes at depths of even 65 meters.¹⁵ Members of the diving team attend a series of courses and practically reach the training of members of the special units. In addition, they must, with support of boats armed with machine guns and grenade launchers, be prepared for anti-terrorist activities on water.

In 2007, divers of gendarmerie completed 40 interventions. Divers took the safe out of water that was thrown from the Old railway bridge by the robbers after the robbery, they took the safe out, which the robbers threw into the lake Resnik, they participated in removing body parts of Luka Opačić and his uncle Vasilije Trbojević, who were brutally murdered by Danijel Jakupčević, who then cut them out and threw into the river. One of the last tasks of diving team was removing a car that landed in the South Morava in Grdelica Gorge.¹⁶

Conclusion

Rivers are an important resource of a country. Especially important are those which are international waterways, such as in our case, the Danube, Sava and Tisa. As such, they must be adequately protected in terms of compromising the safety and property of the citizens who reside, live or work on them, the material and cultural resources that are on them or near them. Indeed, in the geographic space covered by the Police Administration in Belgrade, the most important subjects in this regard are river police, diving center of gendarmerie and fire ship within fire and rescue units.

Generally, in inland waterways, the most common are the following types of criminal acts and offenses: oil and oil products trading, human

¹⁴ See more at: <http://www.telegraf.rs/vesti/357194-ronioci-zandarmerije-vadjenje-tela-dece-je-najstrasnije-od-tuge-i-kamen-puca-foto-video>. Accessed: 06/27/2014

¹⁵ See more at: <http://www.telegraf.rs/vesti/357194-ronioci-zandarmerije-vadjenje-tela-dece-je-najstrasnije-od-tuge-i-kamen-puca-foto-video>. Accessed: 06/27/2014

¹⁶ See more at: <http://www.pressonline.rs/info/politika/23714/podvodni-specijalci.html>. Accessed: 06/28/2014.

trafficking, fertilizers, grains, drug transport and other. Accordingly, the activities of members of river police and other organizational units of the Ministry of Interior of Republic of Serbia are numerous and complex. The main task is to prevent the illegal transport of excise goods. In addition to the prevention of smuggling, one of the most important obligations is to regulate water transport on waterways. Most humane activities are to rescue swimmers and suicides, which jump off bridges, or the endangered in marine accidents. Their activities include visits to the wild beaches and prohibition of their use. The most common security problem for members of the fire and rescue units refer to wildfires and some extraordinary events related to vessels. Also, a fire extinguisher on the rivers is very specific for different reasons.

In addition to these units, the gendarmerie is very important for solving specific security problems on water. Deprivation of liberty of dangerous perpetrators on water, search and extraction of the drowned, extracting objects used to commit a crime, counter-diversion inspection of objects on water are jobs for which are responsible members of the diving team of the gendarmerie.

Bearing in mind the importance given to the safety of people and their property on the rivers, more attention should be directed towards ensuring security on them. Therefore, it is necessary to intensify training in accordance with the programs of professional training and further equip existing units with modern technical means and equipment. Also, it is necessary to provide a more meaningful and closer cooperation of the Danube countries and government entities and forces whose operational issues are related to the safety of navigation in international waterways, adequate legislation and financial assumptions.

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