

## SAR SYTEM IN CROATIA – YACHTSMEN’S FEEDBACK RESEARCH

**Srećko Favro, Ph.D.**

*Hydrographic Institute of the Republic of Croatia, Croatia<sup>1</sup>*

**Mirjana Kovačić, Ph.D.**

*Primorsko-goranska County, Croatia<sup>2</sup>*

**Zvonko Gržetić, Ph.D.**

*Hydrographic Institute of the Republic of Croatia, Croatia<sup>3</sup>*

### **Keywords**

Nautical tourism, system of yachtsmen’s informing, salvage system, SAR in Croatia

### **Abstract**

This paper analyzes the results of research that was conducted in 2006 for the purpose of Study of the nautical tourism development in Croatia. The aim of the research was to bring nautical services and nautical destination, including SAR (Search and Rescue services) to a higher level based on yachtsmen’s views and suggestions. The emphasis was on establishing the condition of present system of yachtsmen’s informing and salvage system on the Croatian part of the Adriatic. Survey was intentionally conducted during the winter period when yachtsmen are in their residence, in order to get the answers that are not affected by current impressions from the vacation. Topical, questions were about specific problems and services in nautical tourism, where yachtsmen could give relevant guidelines with their answers and suggestions.

Due to increased demands for overall safety and efficient control and data analysis in nautical tourism, it is very important to establish computer integration of the system. Thus established computer connection will ensure quick and efficient decision making in order to solve crisis situations and regular system operation. Authors point out at a few ways that can be done and suggest establishing responsible subject, not only on administrative level, but also on practical level. Authors put special emphasis on the role and importance of constant communication of ports of nautical tourism with nautical market and individual nautical destination, and on communication inside the parts of the system. Establishing good communication with yachtsmen and between parts of the system stimulates competitiveness, safety, improvement of services’ quality, and overall yachtsmen’s satisfaction.

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<sup>1</sup> Split 21000, Zrinsko-frankopanska 161, [srecko.favro@hhi.hr](mailto:srecko.favro@hhi.hr)

<sup>2</sup> Department of Maritime Affairs, Transportation and Communication, Rijeka 51000, Adamićeva 10, [mirjana.kovacic@pgz.hr](mailto:mirjana.kovacic@pgz.hr)

<sup>3</sup> Split 21000, Zrinsko-frankopanska 161, [zvonko.grzetic@hhi.hr](mailto:zvonko.grzetic@hhi.hr)

## INTRODUCTION

Interactive communication, as subjective factor of communication in nautical tourism, is of crucial importance for maintaining the activity and for its success. That is very complex concept because it presents mixture of human communication and other abilities, education and application of modern technology, and communication system that part of nautical tourism established for the purpose of internal and external communication. SAR (Search and Rescue) informing system, as subjective factor of the communication, differs from communication system (Luković, 2002). Communication is more than informing, especially in nautical tourism. Maritime characteristics of nautical tourism, i.e. of yachtsmen that are often insufficiently trained and of their navigation, and frequent microclimatic changes on the Mediterranean point out at the specific qualities and importance of communication. Informing of yachtsmen proceeds as in other tourist activities with variations because of specific quality of nautical tourism. Internet, as the information medium of modern times, is the most important medium here. Using Internet, not just as a medium but also as communication infrastructure of the marina, charter companies and cruising corporations develop their information systems. As a possibility of informing in nautical tourism, besides Internet, many other things can be mentioned, such as all kinds of press, television, new possibilities of mobile phones, brochures, ship communication system, communication by word of mouth, and other ways. However, as dominant way of informing, direct contact and personal experience were mentioned. They made 75,3% in total information structure on the Adriatic coast in 2004, and that trend continues.

## AIMS OF THE RESEARCH

Apart from Tomas research, TOTUS research was conducted during 2005/2006 for the needs of making the *Study of the Development of Nautical Tourism in Croatia* (Hydrographic Institute of the Republic of Croatia, 2006). Survey was intentionally conducted during the winter period when yachtsmen are in their residences, in order to get the answers that are not affected by current impressions from the vacation. Topical, questions were about specific problems and services in nautical tourism where yachtsmen could, with their answers and suggestions, give relevant guidelines. Survey for yachtsmen was made up of questions that could, according to the topic, be grouped in the following way:

- personal information
- frequency of navigation on the Adriatic and a degree of satisfaction
- SAR system on the Adriatic
- questions with YES – NO answers considering nautical offer in the port and anchoring/mooring in non urbanized bays.

Survey was made in English, German and Italian language, and yachtsmen surveyed were those who already have the experience of navigation in the Adriatic. They were from Austria, Italy, Germany, Switzerland and United Kingdom. Yachtsmen received the survey on their e-mail address or they found the notice about the survey on web pages of their sailing federation and they completed it at their own wish. Information gathered in that way portrays the profile of yachtsmen that navigate on the Adriatic, their opinions about offer in Croatian marinas, and their wishes and suggestions for improving the services in nautical tourism. Review of the survey is given in this paper.

Aims of survey in TOTUS research can be summarized in few guidelines – establishing opinions of yachtsmen that have the experience of navigation in the Adriatic, and establishing their opinions about advantages and weaknesses of nautical offer and communication and informing system in Croatia. The most important thing was obtaining relevant guidelines with the purpose of further development of nautical tourism.

### Contents of the research

Contents of the research can be divided into topical units (Totus, 2006) (Hydrographic Institute of the Republic of Croatia, 2006):

- profile of the respondents – details about the country of origin, owning a vessel,

frequency of navigation in Croatia, reasons for coming to the Adriatic, ways of informing about navigation destination

- degree of satisfaction – includes the degree of expectations' fulfilment, reasons for satisfaction or dissatisfaction during navigation, and the intention of repeated navigation in Croatia
- informing system – includes respondents' attitudes about where they should be able to find the largest amount of information about the Adriatic, whether they would like to have access to informing system and what would be the easiest way to contact it, whether they would like to receive information about anchorage safety and vacancies in non urbanized bays
- SAR system – includes respondents' attitudes about what kind of help they expect from SAR system services, what would be the easiest way to contact it, and their opinion on whether the expenses of SAR services should be included in the price of vignette for navigation in Croatian waters
- nautical offer in the port – includes respondents' attitudes about whether marinas should include accommodation capacities, whether they would use the possibility of groceries delivery to the vessel, and whether they would like tourist workers in ports to present them autochthonous products and customs and give them welcome brochures
- anchorage/mooring in non urbanized bays – includes respondents' attitudes about whether mooring in non urbanized bays should be allowed, and whether garbage removal from that bays should be organized

#### Methods and sample of the research

- In Austria, United Kingdom and Germany the notice about the survey was posted on web pages of national sailing federations, yachtsmen completed the survey on-line, and the answers arrived by e-mail through automation. The fact that foreign yachtsmen's opinions about nautical offer on the Adriatic are important was very well received in all three countries
- In Austria, Italy and Germany nautical clubs were contacted by phone, and according to obtained information about their members official letter with survey was forwarded to their e-mail addresses. In Austria a total of 128 clubs and OAMTC were contacted, in Italy 41 clubs and Federazione Vela Italiana were contacted, and in Germany 479 clubs and ADAC were contacted
- In Croatia and Slovenia bigger charter agencies were contacted and asked to join the survey
- While trying to achieve cooperation with French sailing federation organizers encountered unkind response, therefore French yachtsmen are not represented in the answer analysis
- During answer analysis it was noticed that 19 answers, i.e. 3% of total answers arrived from Switzerland, therefore Switzerland was also stated as a country that research refers to
- Survey was based on a voluntary basis. Respondents completed the survey by themselves and on their own initiative.

Sample included 640 respondents, strictly foreign yachtsmen that have already navigated in the Adriatic (5 countries – Austria, Italy, Germany, Switzerland, United Kingdom).

### **RESULTS OF THE RESEARCH**

Review of research results is divided into chapters where each chapter refers to the group of related questions from the survey, and they are (Favro, 2008):

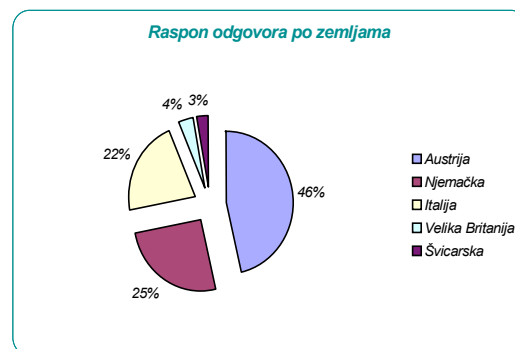
1. personal information and preferences
2. frequency of navigation on the Adriatic and a degree of satisfaction
3. SAR system on the Adriatic

4. questions with YES – NO answers considering nautical offer in the port and anchoring/mooring in non urbanized bays.  
All results are represented graphically for all respondents.

#### Analysis of answers referring to personal information and preferences

According to the country of origin, surveyed yachtsmen were from Austria, Italy, Germany and United Kingdom. Yachtsmen from Switzerland also joined the survey (Picture 1). During answer analysis it was noticed that 3% of total answers arrived from Switzerland, therefore Switzerland was also stated as a country that research refers to. Almost half of the answers arrived from Austria (46%), and among those who have navigated on the Adriatic more than 50 times Austrians are the majority (59%).

Picture 1 Countries of origin

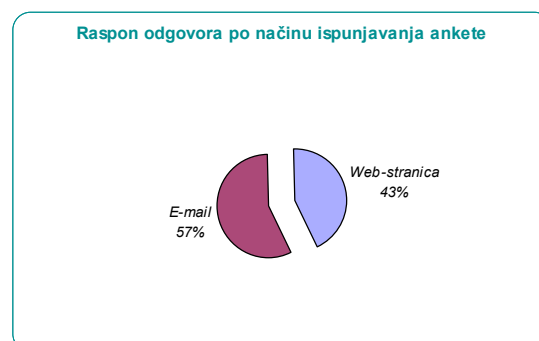


(Source: TOTUS survey 2005/2006)

Ways of completing the survey are as follows (Picture 2):

- 57% of respondents completed the survey urged by official letter they received on their e-mail addresses
- 43% of respondents completed the survey after they had found the notice about the survey on web pages of their sailing organizations. They got interested and on their own initiative gave detailed comments and answers, and therefore contributed to the quality of the survey.

Picture 2 Ways of completing the survey

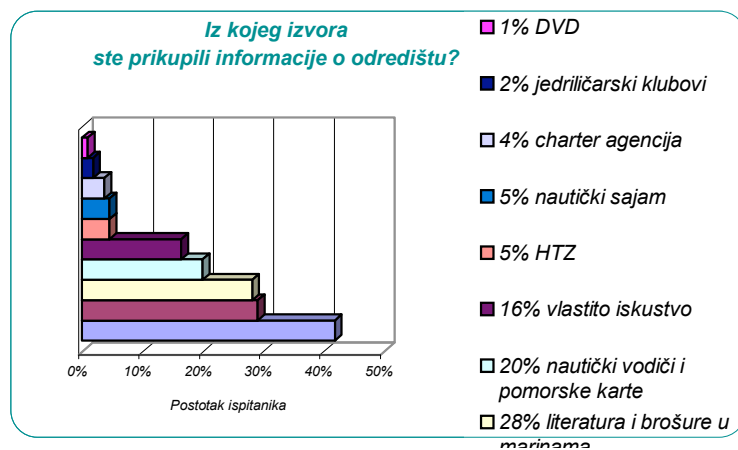


(Source: TOTUS survey 2005/2006)

#### Analysis of answers referring to SAR system

Ways of informing about destination are various (Picture 3)

Picture 3 Sources of informing about destination



(Source: TOTUS survey 2005/2006)

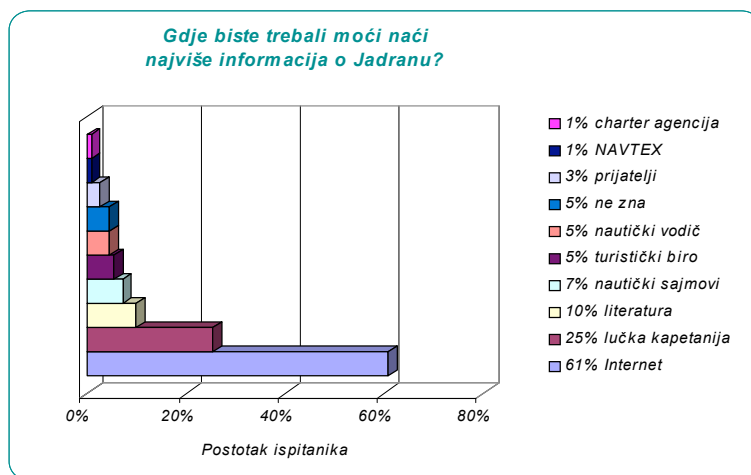
When answering this question respondents usually stated more than one answer:

- Most of them (42%) found information about the Adriatic on the Internet
- High percentage of respondents (48%) still gather information in traditional way – through written material. 28% of respondents gather information about the destination through reviews or brochures they get in marinas and harbour master's office, and 20% of them by exploring nautical guides and sea charts
- 29% of respondents got the information about the destination from a friend
- 16% of respondents have their own experience
- In smaller degree, respondents got the information about the Adriatic through Croatian National Tourist Board, charter agencies and yachting clubs or at boat shows.

When answering the question about the access to the information about the Adriatic, respondents mostly stated more than one answer (Picture 4):

- When asked where they should be able to find information about the Adriatic, 61% of respondents said it should be Internet, even though only 42% of them said that they found information about the Adriatic on the Internet before
- 25% of respondents think that they should be able to find the information about the Adriatic in harbour master's offices, marinas, on flyers, brochures and notice-boards
- 10% of respondents expect to find information about the Adriatic in magazines and reviews, and additional 5% in nautical guides
- 7% of respondents consider that the most appropriate way to get the information would be at boat shows, and 5% in tourist offices.

Picture 4 Access to the information about the Adriatic

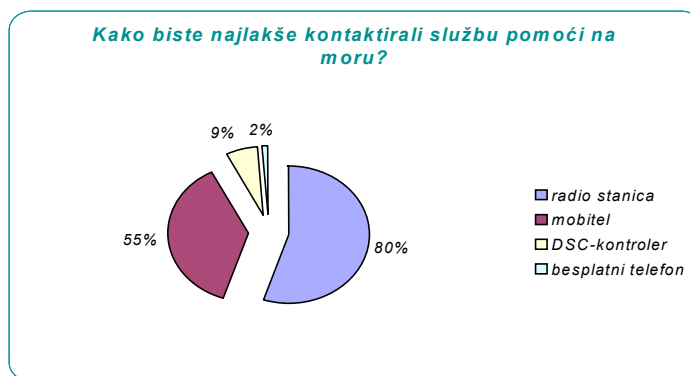


(Source: TOTUS survey 2005/2006)

When answering the question about the ways of contacting rescue services, respondents mostly stated more than one answer (Picture 5):

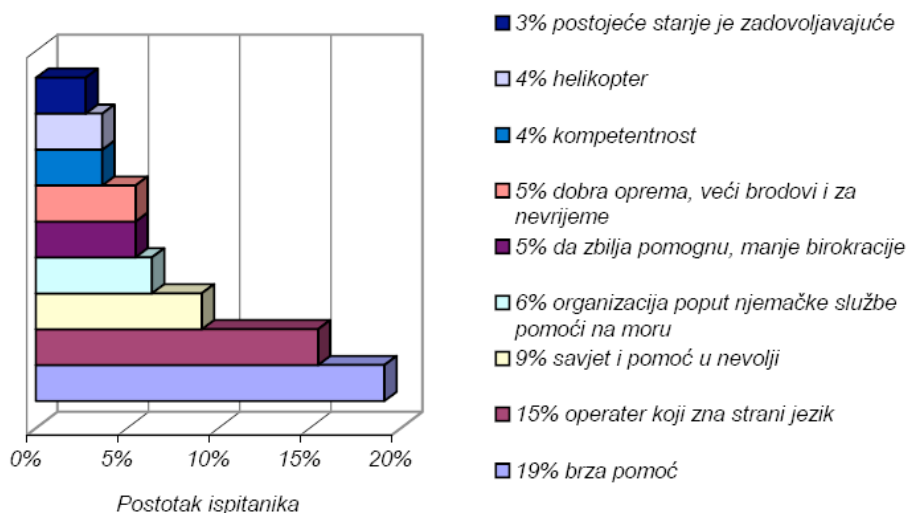
- For 80% of respondents the easiest way to contact rescue services is radio-station
- 55% of them would do that by mobile phone. Respondents who stated more than one answer mostly stated both radio-station and mobile phone.

Picture 5 Ways of contacting rescue services at sea



(Source: TOTUS survey 2005/2006)

Expectations from rescue services at sea are various for different respondents, and review of their answers is given on Picture 6.

Picture 6 Expectations from rescue services at sea

(Source: TOTUS survey 2005/2006)

When answering this question respondents mostly stated more than one answer, and many of them (43%) did not answer this question:

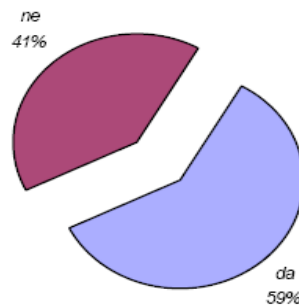
- From rescue services they primarily expect speed (19%)
- 15% of them said that in such situation they would like to be able to contact the operator who speaks their language
- 9% of them expect advice and help in trouble
- 6% suggested to organize rescue service modelled after German service of help at sea
- 5% expect rescue service to really help them, without excessive bureaucracy
- 5% expect rescue service to have good equipment, such as big boats that can navigate even in rough weather, and 4% expect a helicopter, too
- 4% respect competence
- 3% is satisfied with existing situation.

#### Analysis of answers referring to nautical offer in the port and anchoring/mooring in non urbanized bays

Considering receiving information about anchoring safety, respondents answered as follows (Picture 7):

- 59% of respondents would like to receive information about anchoring safety in particular non urbanized bays
- 41% of them do not think that information is important

Picture 7 Informing system considering anchoring safety in non urbanized bays



(Source: TOTUS survey 2005/2006)

When asked about receiving information about anchoring possibilities in non urbanized bays, respondents gave the following answers (Picture 8):

- When asked whether they expect information about vacancies in non urbanized bays, less than half of the respondents, 43% of them, answered affirmatively (Picture 9)
- 57% of respondents is not interested for the information about anchoring vacancies in non urbanized bays
- Variation in the opinion of Italian yachtsmen can also be seen in the answer to this question. 67% of them expect to have the possibility to get that information.

Picture 8 Expectation of getting the information about vacancies in non urbanized bays  
(100% of respondents)



(Source: TOTUS survey 2005/2006)



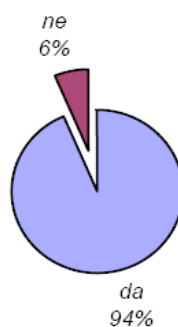
Picture 9 Expectation of getting the information about vacancies in non urbanized bays  
(Italians - 22% of respondents)



(Source: TOTUS survey 2005/2006)

About mooring in non urbanized bays respondents had the following opinion (Picture 10):

Picture 10 Review of answers about mooring in non urbanized bays



(Source: TOTUS survey 2005/2006)

- 94% of respondents declared in favour of mooring in non urbanized bays
- Such high percentage points at respondents' preference towards free anchoring and sailing, and this becomes one of their crucial reasons for visiting Croatia.

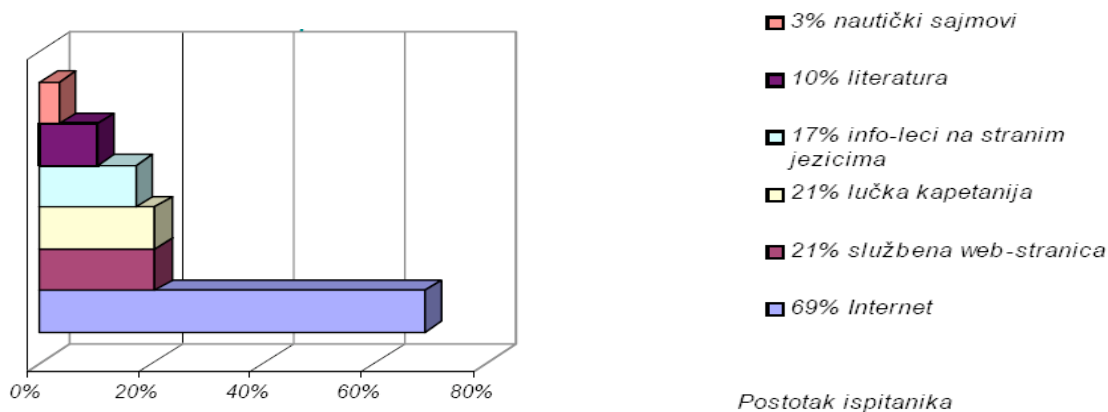
#### Access to information about the Adriatic "50+"

When answering this question, respondents mostly stated more than one answer (Picture 11):

- Opinion of yachtsmen who have navigated on the Adriatic more than 50 times about where the information about the Adriatic should be available corresponds with the opinion of the entire sample. 69% of the 50+ club consider that should be Internet, compared with 61% of the respondents in the entire sample
- 21% of experienced yachtsmen expect that kind of information on official web pages
- Also, 21% of respondents from this sample think that information about the Adriatic should be available in harbour master's offices and marinas
- 17% of them would like to get information about the Adriatic on informative flyers that

would be printed in their language.

Picture 11 Answers about access to information about the Adriatic



(Source: TOTUS survey 2005/2006)

Croatia has many valuable tourist resources – unique coastline, mild climate, clean sea, intact bays, and many cultural sights. This is a part of the answers obtained in this research, while answers presented in this paper suggest that many respondents, apart from these reasons, also stated some other reasons for coming to Croatia. Yachtsmen are satisfied with personal safety and with SAR system. Recent research about yachtsmen's attitudes and consumption, TOMAS – nautika 2007 (Institute for Tourism, 2007), that has been conducted in Croatia since 2001, points at almost identical conclusions. In the part that refers to questions about the safety of yachtsmen and the destination in comparison to other countries, Croatia is considered to be safer than France and Italy, and a little less safe than Spain (Institute for Tourism, 2007).

## **CONCLUSIONS OF THE RESEARCH AND SUGGESTIONS FOR IMPROVING THE SYSTEM**

Information gathered in this research show the profile of yachtsmen that navigate in the Adriatic – they return over and over again, a few times a year, navigate on their own vessel and are mostly satisfied with their vacation in Croatia. They also plan to come to Croatian Adriatic again in 2006. Primary sources of satisfaction are beautiful sea and mild climate, and some other very important things are kindness of inhabitants, infrastructure in marinas, and the possibility to anchor in non urbanized bays, that is emphasized very often.

### Conclusions of the research

It can be concluded that the aims of the research were achieved, i.e. the sample of 640 respondents (100%) can be considered sufficient to establish attitudes and wishes of the boaters that have already been to Adriatic, especially because 27% of respondents have navigated in the Adriatic more than 50 times. It has to be pointed out that the sample is made of yachtsmen that completed the survey on their own initiative, encouraged by written request or notice about the survey on web pages. Besides that, all the answers are really yachtsmen's attitudes about advantages and weaknesses of nautical offer in Croatia. Specifically, survey did not offer multiple answers to any of the questions, therefore respondents could express themselves in a way they wanted to. Most of the respondents gave detailed comments about

specific problems or services in nautical tourism, therefore they can be used as relevant guidelines in the development of the strategy of nautical tourism on the Adriatic. Results can be considered to be objective in the sense that the survey was (intentionally) conducted in the winter period, therefore answers were not affected by current impressions from the vacation.

The results are as follows:

- Extremely high percentage of respondents uses Internet as a source of information. The fact that 43% of respondents found the survey on web pages by themselves points at that. Besides, 42% of respondents found the information about Adriatic as a destination on the Internet, 61% think that the information about the Adriatic should be found primarily on the Internet, and 70% of those who would like to have access to yachtsmen informing system would expect to find that on the Internet
- Extremely high percentage of respondents (94%) would like to keep the possibility to anchor in non urbanized bays and to preserve natural beauties. They consider that is the point of navigating in Croatia
- Extremely high percentage of respondents (89%) said they would like to have access to organized informing system about services in nautical tourism. Most of them think the easiest way to access it would be the Internet
- When analyzing the answers, it was noticed that Italian yachtsmen had very different opinion from the pattern in the entire survey, especially considering specific services in nautical tourism
- Many questions were answered in similar way, i.e. the same answer was given to the question about sources of dissatisfaction during navigation and about the need to install / improve services for yachtsmen. Those answers point at the following:
  - There is a distinct need for better informing about weather forecast, more often and articulate broadcasting on the radio, and timely write-out of notices in marinas. Also, there is the need for weather forecast for at least 48 hours
  - A great number of yachtsmen agree that the buoy system is inadequate, whether the buoys are of poor quality, unsafely fastened to the bottom, there are too many buoys in one place or the organized mooring season is too short
  - Many yachtsmen, especially Italian, expressed the need to establish the possibility to make a reservation for berth in marinas
  - Problems like complicated bureaucracy, non transparent system of charging fees, dissatisfaction with the existing laws (especially new regulation for limiting the number of people in the crew and exchanges of the crew) and inhospitable marina staff were also mentioned very often.

According to the model of system arrangement and established strategic orientation it is necessary to coordinate the existing legal framework by adjusting to market demands and harmonization of legislative regulations with the EU. That means implementation of quality and standard system like in the European Union, implementation of Blue flag standard etc. The yachtsman expects similar approach as in his own country and host country should adapt to those expectations (Favro, 2008).

Consistently with the policy of meeting the yachtsmen's needs it is necessary to simplify procedures and remove administrative obstacles for entering port and staying in Croatian Adriatic by emphasizing new models for solving current problems (National parks, sojourn tax, mega yachts). One registration during the stay should become the rule for all parts of the system, and supply and directing of yachtsmen should enable support during the stay (Kovačić, 2008). Monitoring of the stay for the purpose of yachtsmen's safety in navigation is desirable, but also correct, professional and unobtrusive. Monitoring of the stay is important for safety of the system, preservation of the environment, coast, people etc (Zec et al, 2007).

Due to increased demands for overall safety and efficient control and processing of information about nautical tourism, it is very important to establish informatical integration of the system. Thus established informatical connection will enable fast and efficient decision making for solving crisis situations and normal functioning of the system. There are several

ways that can be done, but they all include existence of responsible subject on practical, and not only on administrative level. Since there is no responsible body in this approach, it has to be established at some of the existing institutions. For high quality functioning of the system it is necessary to ensure constant communication of the system with the market and communication within the parts of the system. By establishing good communication with yachtsmen and between parts of the system competitiveness will be stimulated, rising of services' quality will be enabled, and the result will be satisfied yachtsman.

#### Suggestions for improving the system

Based on the research it can be concluded that:

- Existing organization of navigation safety system in Croatia satisfies current needs
- Because of larger organizational changes (e.g. establishing Coastguard) it is necessary to consider the tasks of other services (maritime police, the customs) that can affect or have crucial impact on navigation safety, protection against pollution and safety precautions
- Conditions of navigation safety established by existing regulations ensure satisfactory level of safety in ports of nautical tourism, therefore they do not have to be changed or updated
- Measures for further improvement of navigation safety and protection of sea and environment should be based on establishing additional services: vessels' maintenance, delivery of additional information by vessels, towing, etc.
- In order to improve safety it is suggested to establish standardized measures in all Croatian ports of nautical tourism, as it was established in ports for international traffic
- Unfavourable impacts of increased number of vessels of nautical tourism, especially big yachts, will not significantly reduce the level of navigation safety. That applies if authorized services are improved regarding their staff, level of competence and quality of equipment

#### **CONCLUSION**

Results of this research are contribution to existing awareness about the need for high quality functioning of the system. Development of science and information technology in the last years of the 20<sup>th</sup> century enabled for economic subjects and subjects of safety system to realize opportunities and activities of establishing interaction with the environment that was hard to imagine until recently. In the future development of nautical port, marina, development of computer technology and of relations in exchange processes will have important role. In doing so, Internet is considered to be the most important mediator in the processes mentioned. By understanding and accepting that kind of thinking, the fact that the future development of nautical tourism is unimaginable without information-communication system is also accepted.

By using modern technology and measures for improving SAR system it is possible to improve the entire system in order to give additional information and to research demand. Still, special role and importance is in improving navigation safety and yachtsmen safety.

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