UDC 001.1

The 9th International scientific and practical conference "Innovations and prospects of world science" (April 28-30, 2022) Perfect Publishing, Vancouver, Canada. 2022. 724 p.

ISBN 978-1-4879-3794-2

The recommended citation for this publication is:
Ivanov I. Analysis of the phaunistic composition of Ukraine // Innovations and prospects of world science. Proceedings of the 9th International scientific and practical conference. Perfect Publishing. Vancouver, Canada. 2022. Pp. 21-27. URL: https://sci-conf.com.ua/ix-mezhdunarodnaya-nauchno-prakticheskaya-konferentsiya-innovations-and-prospects-of-world-science-28-30-aprelya-2022-goda-vankuver-kanada-arhiv/.

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UDC 351.861

CONDITIONS FOR THE INTEGRATION OF QR-TECHNOLOGY FOR THE PREVENTION OF MAN-MADE EMERGENCIES AT CRITICAL INFRASTRUCTURE IN THE INFORMATION AND ANALYTICAL SPACE OF THE EUROPEAN COMMUNITY

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Abstract: The paper considers the conditions of information integration of modern information and analytical support of the process of preventing emergencies of man-made nature, which is developed on the basis of QR-coding technology at critical infrastructure in the information field of the European Community. Identify the main ways of further implementation of QR-coding technology.

Key words: emergency, information technologies, QR-coding, warnings, critical infrastructure objects.

In accordance with the Concept of the program of informatization of the system of the Ministry of Internal Affairs of Ukraine automation of processes of preparation of forces and means for performance of tasks on liquidation of emergency situations, includes:

1) planning the use of forces of the National Police, the National Guard, the State Emergency Service and other bodies of the Ministry of Internal Affairs;

2) setting tasks for the elimination of emergencies;

3) collection, analysis and integration of operational data of the task area;

4) prompt exchange of information,

This division of tasks will automate the decision-making process for the effective use of joint forces and means in a rapidly changing environment in order to prevent, localize and eliminate emergencies, especially in hazardous industries [1].

Based on the above automated QR - control system should include:

1) display of the general operational picture of the zone of performance of tasks with geospatial reference, which reflects in real time the deployment of forces and means involved in emergency response measures;

2) combine data from various sources of information;

3) be able to detail the situation with the help of video signals, display the coordinates of the location of emergency rescue units, special and vehicles, etc .;

4) be able to carry out dynamic control of the spatial position of forces, exchange concise text messages and provide videophone communication of the head of emergency response at hazardous production facilities with lower-level managers at the scene;

5) have access to the dispatching (operational) radio communication system of the SES and the Ministry of Internal Affairs of Ukraine as a whole, and in case of involving cross-border dissemination of emergencies, have access to the systems of partner countries.

Some features of the automated QR system - emergency management should provide interaction with the population, which is projected to be in the area of emergency at the site of hazardous production. Since then, the latter should be integrated into the Emergency System for the population on a single telephone number 112 [2].

Such integration should be based on the principles of comprehensive assistance to the population in the event of emergencies that threaten health, life, property or the environment, other dangerous and catastrophic events.

The following components should be basic in building the interaction [3]:

1) wide use of information and telecommunication technologies, first of all QR coding and QR data reproduction, at adjustment of access of the population to system of rendering of emergency care, and also the organization of electronic interaction at the same time of subjects providing reaction to catastrophic emergency;

2) interaction and use of information (QR), information and telecommunication systems of the Ministry of Internal Affairs for information and analytical support in decision-making in response to emergencies and emergencies;

3) the use of video surveillance and recording of events in real time;

4) use of electronic devices and systems by authorized CEBs and other executive bodies in order to prevent emergencies and prompt response in case of their occurrence.

Building appropriate cooperation within the automated QR system - emergency management through the compatibility of traditional methods of responding to disasters and information and telecommunications technologies will greatly improve the efficiency of assistance to the population and significantly improve the activities of rescue services and other services involved. situation on the scene of an emergency, promptly use available resources, provide information to government and regional crisis centers in real time [4].

At the same time, given Ukraine's focus on European standards in the field of civil protection, the automated QR system - management of man-made emergencies at hazardous production facilities should be based on the European principles of its formation and further implementation, namely:

1) heredity - the rational use of existing information technology, telecommunications and organizational structure, human resources and experience;

2) gradualness and continuity - automated QR system - man-made emergency management at hazardous production facilities is a project that will require significant costs, and therefore should be implemented in stages, in coordination with various public authorities, including constantly covering new areas industries;

3) economic efficiency - optimization of costs of financial, material, human resources and management efforts, so that in a reasonable time, taking into account

external and internal circumstances, an automated QR system - emergency management technogenic nature at the facilities of dangerous production was implemented;

4) predictability - the benefits of using recognized information technology, system software, information resource management, document formats, certified hardware;

5) transparency - involving users in making strategic decisions in accordance with their needs and priorities.

In terms of integration into the Emergency System for the single telephone number 112, the automated QR system - management of man-made emergencies at hazardous production facilities should be based on the European principles of personal data processing [5]:

1) legality, fairness, transparency;

2) target restriction, data minimization;

3) accuracy;

4) storage restrictions;

5) integrity and confidentiality; accountability.

On the other hand, the coordination of joint civil-military actions and mutual support is carried out through the exchange of information, joint planning and joint assessment of the situation, through joint meetings, negotiations and so on.

The key to all coordination is the exchange of information. Search and rescue of people in disasters and emergencies with a large number of victims account for 80% of the total number of cases, so the elimination of their consequences is in accordance with pre-developed principles and algorithms. The remaining cases are complex, ie with a combination of the specifics of several cases simultaneously.

The main organizational principle of interaction should be a system of horizontal and vertical links of response levels, built on a single information and analytical system QR - management of man-made emergencies at hazardous production facilities.

Another basic principle is unification and standardization, taking into account the requirements of the legal and information-analytical space of the European Community, measures to prevent man-made emergencies at hazardous production facilities, which will provide optimal conditions for creating material reserves and training units [6, 7].

Thus, given the orientation of Ukraine to European standards in the field of civil protection, there is a need to generalize and implement international experience in creating and operating management systems in emergencies, based on modern information and communication technologies.

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