



EVALUATION STUDIES EFFECTIVENESS OF PROFESSIONAL ACTIVITIES OF RESCUE DIVERS

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ABSTRACT

The scientific paper presents the information obtained based on the results of research on the prevention of negative consequences of existing risks affecting the activities of rescue divers, and evaluating the effectiveness of their professional activities. As a result of the conducted research, proposals were made for a theoretical prognostic assessment of the effectiveness of rescue divers and improvement of methods to ensure their safety during their professional activities.

KEYWORDS: rescue diver, risk, health, working conditions, professional group, compressed air, mental state, negative factors.

It is known that the professional activities of rescue divers are carried out in extreme conditions that threaten their health and life. A number of important qualities necessary for activities in extreme conditions (emotional stability, physical fitness, flexibility, etc.) are important in determining and predicting the professional activities of rescue divers [1].

Factors directly related to the activities of rescue divers:

1. Vital capacity of the lungs – normally the vital capacity of the lungs is 3000-4500 ml³ [2].
2. State of physical fitness - the state of physical fitness of rescue divers is assessed according to standard criteria [3].
3. Blood pressure – the average blood pressure in adults is 120/80 mm Hg. Art. [4].
4. Water pressure - an absolute pressure of 0.1 MPa (1 kg/cm²) per 10 meters affects the human body [5].

In research work, by studying and influencing qualities, it was possible to assess the effectiveness of their professional activities and improve existing methods, that is, by conducting certain types of practical

training and theoretical research that rescue divers must have to carry out their activities.

At the initial stage of research, a series of experiments were periodically carried out on local natural and artificial reservoirs in order to assess the effectiveness of the work of rescue divers. At the same time, rescue divers were tested to perform 3 different types of tasks: swimming underwater with a breathing apparatus, carrying a load underwater and searching for an underwater object along a guide rope within a certain period of time. time [6]. Including,

Exercise 1: swimming underwater with breathing apparatus. With this method, the rescue diver first checks the breathing apparatus, puts on a half mask and begins to breathe. According to the instructions, the diver will have to swim 500 meters underwater. Execution time was calculated from the start of the command until arrival at the target. The test results are presented in Table 1 (Time: excellent - 20 minutes, good - 25 minutes, satisfactory - 30 minutes).

Table-1
Results performing underwater swimming exercises with a breathing apparatus.

Rescue diver	Age	With breathing apparatus swimming underwater (minutes)
B-C - №1	42	25
B-C - №2	28	18
B-C - №3	34	20
B-C - №4	33	19
B-C - №5	22	18
B-C - №6	24	19
B-C - №7	23	17
B-C - №8	29	21
B-C - №9	23	19
B-C - №10	24	25

Exercise 2: Carrying a load underwater. With this method, the rescue diver first checks the breathing apparatus and puts on a half mask and begin breathing. According to the instructions, the diver must transport a pre-prepared load weighing 10 kg under water over a

distance of 200 meters. Execution time is the time from the start of the instruction to the arrival of the target. The test results are presented in Table 2 (Time: excellent - 10 minutes, good - 12 minutes, satisfactory - 15 minutes).



Table-2

Results performing an exercise to carry a load underwater.

Rescue diver	Age	Carrying cargo underwater (Minutes)
B-C - №1	42	14
B-C - №2	28	9
B-C - №3	34	10
B-C - №4	33	10
B-C - №5	22	8
B-C - №6	24	7
B-C - №7	23	9
B-C - №8	29	12
B-C - №9	23	8
B-C - №10	24	14

Exercise 3: searching for an underwater object using a guided cable. First, the rescue diver checks the breathing apparatus and puts on a half mask and begins to breathe. According to the instructions, the water is lowered and the search for the previously placed object begins.

Completion time was calculated from the moment the instruction was received until the diver reached the surface of the water and left the appointed place. The test results are presented in Table 3 (Time: excellent - 30 minutes, good - 40 minutes, satisfactory - 50 minutes).

Table - 3

Results exercises to find an underwater object along the route.

Rescue diver	Age	Search for an underwater object along a directed cable (minutes)
B-C - №1	42	40
B-C - №2	28	28
B-C - №3	34	26
B-C - №4	33	30
B-C - №5	22	29
B-C - №6	24	28
B-C - №7	23	25
B-C - №8	29	32
B-C - №9	23	27
B-C - №10	24	35

All 3 different types of exercises were performed periodically during the classes. It was repeated every 15 days for 6 months, and during this period they were given tasks to perform additional loads to improve their physical performance and their performance indicators were recorded. Physical activity was carried out in two different conditions aquatic and anhydrous conditions.

As can be seen from the above, as a result of regular training with rescue divers, it was observed that training time was reduced to 5 minutes in proportion to their age, their mental and physical fitness increased, their skills and self-confidence increased.

By assessing the effectiveness of rescue divers, he creates opportunities for their effective and targeted use of them. Also in this study we can see the compatibility obtained as a result of practical exercises with the results obtained by performing theoretical calculations.

LITERATURES

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