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Analysis of the Current Status of the Normative Duties of Improving Fire Rescue Preparation Methods of Firefighters

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ABSTRACT

It stipulates the necessity of receiving top-notch professional training, gaining real-world experience, and having one's fire-rescue abilities evaluated in fire-rescue garrisons, which determines the choice of the most crucial parameters and performance models. The reason for this is a number of objective characteristics, namely the requirements for the qualification and physical fitness of the personnel of the fire-rescue service, the optimization of old methods and the improvement of new methods of training, development and implementation of fire-rescuers, and the implementation of new training complexes.

Relevance: There is unquestionably a high demand for highly trained fire rescuers worldwide today. The need to raise the bar for fire extinguishing, emergency rescue operations, and the abolition of emergency situations is one of the key components of managing the professional training of fire and rescue units. The system of checking the level of knowledge of practical skills and qualifications is one of the main stages of training personal content.

The process of verifying and assessing the system of practical skill and qualification acquisition by fire-rescuers who have completed the challenging development path is crucial in preparing fire-rescuers for the field. Innovative concepts were created at each stage of its development to support the choice of control exercises and temporary indicators, revealing a variety of different approaches to the development of the fire-rescue service norms system.

Serious contradictions [1–9] are mostly related to the choice of test tasks (exercises) and their evaluation methods, according to practice and analysis from previous years. The selection of appropriate criteria for evaluating the outcomes, as well as the serious formation and systematization of the system of verifying and evaluating the acquisition of practical skills and qualifications of fire-rescuers, necessitate making adjustments. The reason for this is a number of

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objective features, especially the requirements for the state to increase the qualifications and physical fitness of the personnel of the fire-rescue service, to optimize the old methods of training fire-rescuers and to apply new methods, to develop and implement new training sets. To solve these issues in light of all this, creative solutions are now needed.

The issues surrounding the differentiation of criteria based on the creation of practical evaluation standards carried out by fire-rescuers have not been sufficiently studied from a theoretical-methodological point of view. The majority of the scientific and research work on the psychological training of fire-rescuers was done by V.V. Mikhaylova and A.E. Surina in 2008, G.V. Kurnosov in 2009, and Kh. I. Tsechoevlar in 2011. The study of physical fitness and professional-practical training of fire-rescue service personnel was conducted by E.E. Sokolov in 2006, S.S. Aganov in 2000 and 2008, B.M. Dinaev in 2006, and M.N. Jegalova in 2012 and 2013. G. V. Rudenkolar carried out scientific research.

The foundation for developing a system to assess the degree of practical skill, knowledge, and skill acquisition is the methodology for developing a set of tests. It is based on a thorough examination of current normative tasks and on limited research into specific aspects of physical exercise.

The time required to create a system for managing fire-rescuers during control exercises is currently insufficient. In order to increase the objectivity of assessing the levels of acquisition of practical skills and qualifications of fire-rescuers, a practical control system must be developed. This in turn affects the research topic's applicability and results in some very serious contradictions.

Purpose of the research. The evaluation of the effectiveness of professional training management within the context of the analysis of the current normative tasks, as well as the scientific justification of the need to create new normative tasks to enhance the fire-rescue service's individual training.

Research hypothesis. The need for developing new standards that will provide a step-by-step study of crucial exercises and tasks that have a sufficient impact on the constant readiness of personnel in fire-rescue units is revealed by hypothesis analysis of the existing fire-fighting, fire-rescue, and tactical-special training.

The following issues must be resolved in order to achieve this goal:

1. Analyzing the requirements for firefighting, fire rescue, and tactical-special training for the staff of the Republic of Uzbekistan's fire-rescue service units.
2. An analysis of international standards for training in fire-rescue procedures.
3. Justification for the requirement to create standards for personnel working for the MES of the Republic of Uzbekistan's fire-rescue service units.

Result and discussion

Objective evaluation of various aspects of fire-rescue unit activity for staff of the Fire-Rescue Service of the Ministry of Emergency Situations of the Republic of Uzbekistan is of great importance in the analysis of standards for fire-fighting readiness.

In order to compare the normative requirements of the Fire and Rescue Service of the Republic of Uzbekistan with the requirements for the level of training of employees of foreign countries, we analyzed the qualification standards of firefighters and rescuers in the Russian Federation, Kazakhstan, Belarus, Ukraine and the Republic of Uzbekistan, as well as the personal fire safety service of the USA and Germany. The system for composition preparation was also taken into account.

The standards for this firefighting readiness are listed in Table 1.1 and were approved by Major-

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General of the Internal Service E.E. Kiryukhantsev, Deputy Head of the Main Directorate of the State Fire Rescue Service of the Ministry of Internal Affairs of the Russian Federation, on December 28, 1994.

Table 1.1. Standards for firefighting training

No	Naming of the standards section	Amount	Individually	Collective
Total standards		51	19	32
1.	Standards for firefighting and rescue equipment and fire-rescue equipment (1-23)	23	18	5
2.	Rules for Combat Deployment (24-28)	5	1	4
3.	Standards for combat spread from main fire engines (29-52)	23	-	23
Mandatory standards		7	4	3

In the designated normative tasks, the issues related to training fire-rescuers in the circumstances of professional activity were taken into consideration. In reality, there are 51 standards in the list of special tasks. (of which 19 were individual and 32 were collective). The following standards were required: No. 1, No. 4, No. 11, No. 20, No. 30, No. 36:

- Rule number 1: Dress in special combat gear and armor;
- Standard number 4: complying with the danger message and leaving accordingly (including parking outside the garage gate);
- Standard number 11: Secure the standard rescue rope to the structure of the building;
- Standard number 19: the occupation ladder in the training tower rises to the fourth floor;
- Rule number 20: use the built-in sliding ladder to ascend to the third floor of the educational tower;
- Standard number 30: placement of the tank truck at the source of the water;
- Standard No. 36: Force and means distribution using a single "B" fire extinguisher handle from a tank truck.

It is well known that the caliber and level of the standards structure at that time were based on exercises outlining the most crucial abilities and credentials of the personnel involved (allowed) in the management of emergency rescue and firefighting at that time. In this instance, the choice of fundamental standards for fire-rescuers enables them to be separated into a distinct group, taking into account the requirement to evaluate the most crucial facets of their professional training.

The personal protective equipment for breathing and vision training of gas and smoke protectors is not governed by the firefighting training standards taken into account in Table 1.1. Control exercises, which enable evaluation of the most crucial components of training for gas and smoke protectors using specific respiratory protective equipment, were created for this purpose in 1999. Table 1.2 shows the "List of standards to be followed and evaluated in the training of gas and smoke protectors" approved by the Deputy Head of the Main Directorate of the State Fire Rescue Service of the Ministry of Internal Affairs of the Russian Federation, Major General of the Internal Service E.A. Serebrennikov.

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Table 2. A list of standards to be followed and evaluated in the training of gas and smoke protectors

No	Naming of the standards section	Amount	Individually	Collective
Total standards		14	9	5
1.	Standards for firefighting and rescue equipment and fire-rescue equipment	6	5	1
2.	Norms on the combat deployment of forces and means from special fire-fighting vehicles	3	-	3

Based on the characteristics of the combat tasks performed by gas-smoke defenders, the set of normative tasks was finished in 2008. As a result, new guidelines that must be followed and assessed when creating gas and smoke protectors have been developed. The task list had 14 criteria, of which 9 were performed individually and 5 collectively. The Chief Military Specialist of the Russian Federation FVV, Colonel-General P.V. Platom, approved the "List of standards to be followed and evaluated in the training of gas and smoke protectors" on June 30, 2008.

Table 1.3. A list of standards to be followed and evaluated in the training of gas and smoke protectors

No	Naming of the standards section	Amount	Individually	Collective
Total standards		14	9	5
1.	Standards for firefighting and rescue equipment and fire-rescue equipment (1, 2, 3, 7, 8, 9, 10, 11, 14)	9	9	-
2.	Standards for the combat deployment of forces and means from special fire-fighting vehicles (4, 5, 6, 12, 13)	5	-	5

The standards of fire-class and tactical-special training for fire-rescue personnel were approved in 2011. These standards, which included 82 exercises and were already divided into 11 categories (departments) based on the actions of fire-rescuers, their type, and working conditions, were already in place. Standards for fire-fighting and tactical-special training of the personnel of the fire-rescue service, approved on May 10, 2011 by the Chief Military Specialist of the Ministry of Civil Defense, Emergencies and Consequences of Natural Disasters of the Russian Federation, Colonel-General P.V. Platom 1.4 - is presented in the table. First aid standards for women fall under a different category.

Table 1.4. Standards of fire-fighting and tactical-special training of fire-rescue service personnel

No	Naming of the standards section	Amount	Individually	Collective
Total standards		99	54	45
1.	Wearing special combat clothing and armor (1.1-1.3)	4	3	1
2.	Assembling and getting into the car outside the garage gate (2.1)	1	-	1
3.	Actions with pressure fire extinguishing levers (3.1-3.4)	4	2	2
4.	Actions with rescue equipment (4.1-4.10)	10	8	2
5.	Actions with fire ladders (5.1-5.12)	12	8	4
6.	100 m hurdles (6)	1	1	-
7.	Spread of pumped-well systems (7.1-7.19)	19	-	19
8.	Distribution of primary fire extinguishers (8.1-8.4)	4	4	-
9.	Distribution of fire-extinguishing and emergency-rescue devices (9.1-9.5)	5	-	5

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10.	Radiation, chemical and biological protection (10.1-10.16)	21	14	7
11.	First aid (11.1-11.7)	7	7	-
Mandatory standards		11	7	4

There are now three mandatory standards in the 2011 edition. The standards from Sections 9, 10, and 11 are added to the seven already existing standards, respectively:

- norm number 1.1: wearing combat and special clothing and equipment;
- Rule number 2.1: gather outside the garage gate, get into the car and get out according to the danger signal;
- Norm No. 3.2: movement with pressure fire extinguishing levers (spread of the main path with a diameter of 77 mm);
- Standard number 4.3: movement with rescue equipment (fixing the rescue rope to the building structure);
- norms No. 5.7 and No. 5.8 for operations with fire-fighting ladders (norm No. 5.7: climb to the 4th floor of the training tower with an occupation ladder, Norm No. 5.8: climbing through the sliding ladder installed on the 3rd floor of the training tower);
- Norm number 7.3: placement of pump-eng systems;
- Standard No. 9.3: Placement of fire extinguishing and emergency rescue equipment (cutting steel reinforcement d=18 mm using a cutting tool);
- Standard number 10.4: radiation, chemical and biological protection (wearing a general protective suit and wearing a filtering gas mask);
- Standard No. 11.2: first aid (primary dressing).

The analysis of the fire-rescue training standards of the Ministry of Internal Affairs of the Republic of Kazakhstan (Table 1.5) and the fire emergency-rescue and physical training standards of the Republic of Belarus (Table 1.6) showed that the control tasks are important issues of training of fire-rescuers and rescuers in the context of their professional activities is presented in the form of a review.

The standards for improving fire-rescue preparedness given in Table 1.5, approved by the order of the Chairman of the Emergency Situations Committee of the Ministry of Internal Affairs of the Republic of Kazakhstan dated May 25, 2015, which are currently in force for the personnel of the Ministry of Internal Affairs of the Republic of Kazakhstan, are combined into 3 large groups

Table 1.5. Manual on fire-rescue training

No	Naming of the standards section	Amount	Individually	Collective
Total standards		57	24	35
1.	Standards for firefighting and rescue equipment and fire-rescue equipment (1-23)	26	23	5
2.	Rules for the combat deployment of forces and means from special military units (24-28)	5	1	4
3.	Standards for special fire extinguishing and rescue equipment (29-54)	26	-	26
Mandatory standards		7	4	3

In actuality, there are 57 standards for special assignments, of which 24 are completed by an individual and 35 by a team. Implementation of fire-rescue service units during inspection, final

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inspection, as well as planned and control inspections, training, and exercises (norm) is defined as mandatory under standards 1-, 4-, 11-, 19-, 20-, 30-, and 36. These requirements include:

Principle No. 1: put on the appropriate gear and clothing for combat;

Standard #4: muster and depart (including boarding the vehicle at the gate to the garage);

11th standard: using one of the four methods to secure the rescue rope to the building structure;

Standard number 19: use the job ladder to ascend to the fourth floor of the educational tower;

The third floor of the educational tower's sliding ladder, which is standard number 20, must be climbed.

Standard No. 30 requires the installation of a fire-rescue truck with two 4 m-long suction nozzles per truck and a water net at the water source;

Standard No. 36: Spread the main skirt with three 77 mm diameter skirts, two working skirts, and a "B" fire extinguisher handle from the tank car.

If we dwell on the norms of fire emergency-rescue preparedness shown in Table 1.6, approved by the Minister of Emergency Situations of the Republic of Belarus on October 24, 2005, the number of norms is quite different from the tasks of fire-rescue preparedness assigned to the personnel of the Ministry of Internal Affairs of the Republic of Kazakhstan.

Table 1.6. Standards for fire emergency-rescue preparedness

No	Naming of the standards section	Amount	Individually	Collective
Standards for fire emergency-rescue preparedness				
Total standards		45	27	18
1.	Combat clothing and armor, standards with protective equipment (1-5)	6	5	1
2.	Emergency report assembly and exit standards (6-8)	3	-	3
3.	Standards with lifelines and lowering devices (9-14)	6	6	-
4.	Standards with rescue ladders (15-20)	6	5	1
5.	Standards for the personnel of the gas and smoke protection service (21-29)	10	3	7
6.	Standards with emergency rescue devices (30-35)	6	-	6
7.	Standards of first aid (36-43)	8	8	-
Standards for conducting training exercises on the combat deployment of units and duty shifts				
Total standards		26	-	26
	Combat deployment standards for units and duty shifts (1-22)	22	-	22
	Combat deployment of units and duty shifts using filtering gas masks (23-26)	4	-	4
It should be noted that a separate appendix contains a list of exercises and standards for physical training for employees of different ages of emergency response bodies and units (men and women) of the Republic of Belarus.				

That is, the fire-rescue training made it possible to differentiate the assessment criteria for the acquisition of physical training skills and qualifications for the bodies and employees of the units (men and women) in the combat deployment of the emergency units and duty shifts of the Republic of Belarus. As a result of this difference, in our opinion, the level of control of the quality of preparation of the techniques and methods of action of employees in the conditions of

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quick-tactical decision-making in the fire, the quality of mastering fire extinguishing equipment and rescue tools as a result of the implementation of norms, as well as the level of physical fitness of employees is expanding.

According to an analysis of Ukrainian fire-rescue training standards, the required duties are outlined in terms of taking into account the most crucial aspects of teaching firefighters and rescuers in the context of their respective professional roles on fire and rescue teams. According to the analysis of the criteria for evaluating the qualifications and skills of fire rescue personnel of foreign countries, as an example of the professional qualification standard for fire rescuers, in the USA and Germany, according to the studied documents, the professional duties of fire rescuers and volunteer fire rescuers are mainly of different nature. , the minimum requirements for their labor productivity are determined. However, these nations do not consider the standards for evaluating time markers [10-11].

The "Standards of Fire Extinguishing and Line Preparation" are listed in Table 1.7 and were authorized on June 26, 2012, by the director of the Ministry of Internal Affairs' Fire Safety Directorate.

Standards for burning and line preparation are listed in Table 1.7.

No	Naming of the standards section	Amount	Individually	Collective
Total standarts		41	10	31
1.	Equipment standards for both fire-rescue and protection (1-16)	16	10	6
2.	Standards for combat spread from main fire engines (17-32)	16	-	16
3.	Standards for Combat Deployment (33-41)	9	-	9
Mandatory standards		not specified		

Mandatory standards are not specified in the indicated normative tasks. Also, all the exercises of these norms should be performed in combat clothing and equipment (gloves should be worn when necessary), and when the exercise is performed alone, the age of the exerciser should be taken into account, including the age of the exerciser, as indicated in the norm up to 30 years old, from 30 to 40 years old, 5 percent should be added to the time norm, and over 40 years old Indicating that the standards are standardized for summer and winter time is the addition of 10% for fire service employees, 10% addition to the time standard during the first 6 months of duty, plus 25 seconds addition to the time standard if fire engines have an air-compressor system.

In 2019, after the transfer of the State Fire Safety Service from the system of the Ministry of Internal Affairs to the system of the Ministry of Emergency Situations, changes and additions were made to all regulatory documents, including a number of amendments to the norms of fire extinguishing and line preparation.

Table 1.8 displays the "Fire-Rescue Line Preparation Standard" that the Fire and Rescue Service of the Republic of Uzbekistan authorized on October 25, 2021.

Table 1.8. Standards for firefighting and line preparation

No	Naming of the standards section	Amount	Individually	Collective
Total standarts		101	56	45
1.	Standards for firefighting and rescue equipment and fire-rescue equipment (1-18, 36-38 and 40-45)	27	13	14
2.	Rules for Combat Deployment (19-20)	2	-	2
3.	Standards for combat spread from main fire engines (21-35, 39)	16	-	16

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4.	Rescue Squad Training Standards (46-101)	56	43	13
Mandatory standards		not specified		

Mandatory norms aren't described the same way in the specified normative duties as they are in the previous norm. Also, all the exercises of these norms should be performed in combat clothing and equipment (gloves should be worn when necessary), and when the exercise is performed alone, the age of the exerciser should be taken into account, including the age of the exerciser, as indicated in the norm up to 30 years old, from 30 to 40 years old, 5 percent should be added to the time norm, and over 40 years old An rise of 10% is suggested, but for firefighters and rescuers, a percentage is added to the time standard during the first six months of employment, and the standards are standardized individually.

As a result, we can conclude that all of the nations we have looked at use normative tasks or norms to evaluate the degree of training of fire-rescue personnel. The state's requirement for highly skilled fire-rescue people is reflected in each factor that was examined.

Conclusion. The study of the normative duties of other nations (Belarus, Kazakhstan, and Ukraine) revealed that the standards are stated in law papers and are required. A more thorough examination of the prescribed duties revealed that the Republic of Kazakhstan's (2015) special training and firefighting standards are generally E.E. It is mirrored in the regulations established by Kiryukhantsev in 1994 by the Ministry of Internal Affairs of the Russian Federation regarding the training of fire officers for the Fire Rescue Service. The degree of greater standards (temporary indicators) between the normative tasks of the State Fire Service of the Ministry of Emergencies of the Russian Federation and the normative tasks of the Republic of Belarus from 2005 differs significantly. (2011). The norms of the fire service in Ukraine show the biggest deviations from those of the State Fire Service of the Russian Federation MES (2011). (2015). The fire safety laws of Ukraine are very specific and broken down into regions of operation and groups. Additionally, it should be mentioned that the fire safety laws of the Republic of Belarus and Ukraine [12–14] easily include the prescribed duties for physical training and the gas and smoke protection service.

The United States of America and Germany have set minimal labor productivity standards for firefighters and rescuers, and these nations do not use temporary signs as a basis for their assessment criteria [15–16].

The conducted studies revealed the specific features of the training of the personnel of the fire-rescue service both in the Republic of Uzbekistan and in foreign countries, and also identified ways to further improve the system of training the personnel of the fire-rescue service of the Ministry of Emergency Situations of the Republic of Uzbekistan. The research revealed a number of issues that need to be fixed with the normative duties assigned to the fire-rescue service of the Ministry of Emergency Situations of the Republic of Uzbekistan for the construction of the fire-rescue line.

The significant flaw in the united system for determining the degree of actual skill and certification learning should receive special attention, in particular:

- No regulatory paper contains the standards under discussion, so their application is not required. This creates serious conflicts between the assessment of the level of mastery of the acquired skills and the system of personnel training itself;
- in this regard, there is a serious need to develop and approve an administrative document for the personnel of fire-rescue units that takes into account the system of checking and evaluating the practical skills and qualifications of fire-rescuers and rescuers;
- Normative duties are established by different documents, including methodological suggestions, for the training of current gas and smoke defenders, fire-rescue training,

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physical training, gas and smoke protection service, first aid, and civic protection. This does not, in our view, make logic. Thus, there is a need for a new edition to consolidate all regulatory documents into a single format;

- due to the changes in the requirements of the state standards for fire rescue equipment (portable fire extinguishing equipment, fire fighting and rescue equipment, etc.), there was a need to update the conditions for the performance of the standards and their time indicators;
- also, taking into account the geographical structure of the Republic of Uzbekistan, weather conditions, climate and the age indicators of military personnel and employees serving in the FVV system, developing the conditions for conducting standardized exercises on fire-rescue training and conducting additional test experiments for each condition is required.

All this requires a serious approach to solving the problem of revising the existing system of normative tasks of the Ministry of Emergency Situations of the Republic of Uzbekistan aimed at qualitative acquisition of practical skills and qualifications by the personnel and making the necessary corrections (clarifications).

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