PROBLEMS AND WAYS OF PERFECTION OF PHYSICAL TRAINING OF JUNIOR OFFICERS
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Annotation. Research of level and dynamics of physical preparedness of cadets of military institute during all period of education and young officers during the first three years of service in officer positions was conducted. The cadets of 1-5 courses (n=158) and officers of 1 age group (n=42) took part in researches. The level of physical preparedness was determined as a result of running on 100 m, pulling up on a cross-beam, running on 3000 m. It is set, that the results of cadets grow to the 4 course and stabilize and even gone down on 5 course. The level of physical preparedness of young officers, who had a desire to systematic employments by physical exercises during period of education in the institute, remains high during 3 years after the finishing. At young officers who are not independently engaged in physical preparation, the level of development of physical qualities gets worse in the process of service.

Key words: cadets, officers, physical, preparedness.

Introduction.
Analysis of the literature [2, 5, 10-13] showed that the requirements for training military specialists are constantly growing. Especially the preparation of young officers [4, 8].

The practice of modern warfare suggests that a high level of physical fitness and readiness of graduates of higher military educational institutions - young officers will significantly improve the combat readiness of armed forces. With the accelerating pace of technological upgrading, the armed forces require professionals who can obtain sophisticated military equipment in a short time and effectively use it in combat. The role of physical training, which aims to provide physical readiness of future officers to professional activities is increased.

Physical readiness – is a level of physical fitness of servicemen allowing them to perform tasks according to their positions. Physical readiness is one of the main conditions for the successful performance of their duties under combat conditions and effective performance of their tasks [1, 9].

However, the Minister of Defence orders stated that the level of physical preparedness of officers of the Armed Forces of Ukraine every year is getting worse. Yu. Borodin, Yu. Finogenov and others [1, 8, 10] argues that most officers do not come to class in physical training, and the number of officers involved themselves does not exceed 20%.

Researchers [1, 4, 5 and others] identify a number of reasons for the low level of physical fitness of young officers: the lack of necessary control by commanders to issues of physical training of young officers; reducing regulations to young officers compared with the requirements for the level of physical preparedness of graduates of higher military educational establishment; absence of stimulating factors and motivation to self-employment while studying in higher military educational establishment.

Work is done according to the plan of SRW of Management of physical training of the Armed Forces of Ukraine for years 2011-2015 on the theme “Organizational aspects of functioning of the system of physical training of the Armed Forces of Ukraine in modern conditions”.

Aim, tasks, material and methods.
Aim of work - determine the causes of low levels of physical fitness of officers of younger age groups.

Tasks:
1) examine the level and dynamics of physical fitness of students for the period of study in high school;
2) examine the level and dynamics of physical fitness of officers of younger age groups.

Methods of research. Theoretical analysis and synthesis of the literature, pedagogical observation, questioning, pedagogical testing.

Organization of research. The study involved students of 1-5 courses (n = 158) and officers of the first age group (30 years, n = 42) of Zhytomyr Military Institute named after S.P. Koroliov of National Aviation University.

Results.
We conducted analysis of the basic physical properties, based on the results of these exercises: running for 100 m, pulling on, running for 3000 m in 2007-2011, with the aim of investigation a level and dynamics of physical fitness of students.

Analysis of the results showed that in the period of study from 1st to 4th course is observed a tendency of indexes growing of physical training of cadets. At the 5th course development of all investigated physical properties stops and even has a regressive (Table 1, Fig. 1-3).

Research results shown by cadets running for 100 m during the whole period of study in higher military educational establishment indicates that the results on the 5th course was significantly higher only in comparison with the results that were shown on examinations of the 1st and 2nd year students (P <0,05) (Fig. 1). Since the 4th year, the results have slight dynamics and reliably level (P> 0.05).

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doi:10.6084/m9.figshare.106938
It is important to note that the best indicator of the level of speed qualities was shown by cadets at the 4th year of study - 13.73 c, and only on 5th year of study average result is reduced by 0.09 c (P> 0.05) (Table 1).

Analysis of results from pulling-up at the 1-5-year students allowed to conclude that power qualities of students are developed enough - for all courses rated as "excellent", but on the 5-th year average results lower compared with the 4th course (Fig. 2). The results shown by cadets during exams in physical training at the 5th year are not significantly different from the results shown on the 3rd and 4th courses (P> 0.05). The best result of the tightening observed on the 4th year of study - 18.45 times. Significant difference was only between the results of students of senior and junior courses (P <0.05).

It should be noted that the increase in the average result of pulling-up of students in the 5th year compared with results that are shown in the 3rd course, is only 0.04 times (P> 0.05) (Table 1).

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**Fig. 1. Dynamics of results on 100 m running at students during the study period in higher military educational establishment (n = 158, c)**

**Table 1**

<table>
<thead>
<tr>
<th>Course of study</th>
<th>1 course</th>
<th>2 course</th>
<th>3 course</th>
<th>4 course</th>
<th>5 course</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>31</td>
<td>37</td>
</tr>
<tr>
<td><strong>100 m, c running</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>14.57</td>
<td>14.14</td>
<td>13.98</td>
<td>13.73</td>
<td>13.82</td>
</tr>
<tr>
<td>m</td>
<td>0.12</td>
<td>0.10</td>
<td>0.08</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Pull-up, times</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>13.94</td>
<td>15.53</td>
<td>17.08</td>
<td>18.45</td>
<td>17.12</td>
</tr>
<tr>
<td>m</td>
<td>0.86</td>
<td>0.72</td>
<td>0.65</td>
<td>0.53</td>
<td>0.61</td>
</tr>
<tr>
<td><strong>3000 m, c running</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>771.5</td>
<td>744.9</td>
<td>716.7</td>
<td>703.1</td>
<td>718.6</td>
</tr>
<tr>
<td>m</td>
<td>8.13</td>
<td>6.26</td>
<td>5.03</td>
<td>2.97</td>
<td>3.25</td>
</tr>
</tbody>
</table>
Research of results in 3000 m running of students during the whole period of training in higher military educational establishment has the following dynamics: improved performance at the 1-4th courses and a decrease in the 5-th year of study relatively 4th (Fig. 3). The average result of students of the 5th year study were not significantly different from the results shown during examinations at 3-4 course ($P > 0.05$).

It should be noted that the best indicator of the level of endurance was shown by cadets during the examination of physical training on the 4 year of study - 11 min 43 c (Table 1).

Thus, the study of the dynamics of the level of physical properties showed that the existing system of physical training is not enough effectively creates physical fitness of cadets - future officers. Indicators of development of students’ main physical qualities in the learning process change with the same trend - a progressive increase of indices in 1-4th course ($P < 0.05$) and a certain decrease in the 5th year of study ($P > 0.05$). One of the reason for this problem is the lack of motivation in students of the 5th year of study since evaluation system under the same standards for students of 4th and 5th year students. On the 5th course students will not continue to improve their physical qualities, but keep up them that leads to lower levels of physical fitness.

It was tested indicators of basic physical qualities of officers of first age group during the first 3 years of service for officer positions on the same exercises with the aim of investigation the level and the physical fitness of young officers, in which we analyzed the results of students.

Comparative analysis of the standards for determining the level of physical fitness of students of the 5th year
of study and officers of 1st age group showed that the current regulatory system is not enough stimulate young officers to systematic studies of physical training. So, graduating student received the highest mark in the exam for the execution of each exercise, and coming to troops in a month after the graduation already pass norms for other requirements (Table 2). Accordingly this young officer may without additional training for a long time to pass norms on positive mark. And if he will not go in for sport, the level of preparedness and training will decline significantly.

To investigate the level of physical properties of young officers, we analyzed the results of physical training of officers of the 1st age group, which additionally engaged in physical exercise (group A) and officers who worked under the current system of physical training (group B). Distribution by groups of officers took place at the survey results. Group A included 13 persons (30.9%), group B - 29 persons (69.1%).

Analysis of the results of running at 3000 m showed that the rate of physical training of group A remain fairly stable for 3 years of service (P> 0.05), while in group B are reduced (Fig. 4). The difference between the results of group B officers on the 1st and 3rd years of service is 1 min 22 c (P <0.001).

The results of the study suggest:
- To raise standards for students of the 5th year;
- Enter classes in physical training in the 10th semester of study;
- To raise standards for officers of the 1st age group;
- The assessment of physical training of cadets senior courses and young officers enter the requirements for the implementation of the relevant sports category;
- To introduce requirements for officers, which provide assessment in physical training not less than "good", if appointed to a higher position and assigning the next rank.

![Fig. 4. Dynamics of results of 3000 m running of officers of the 1st age group for 3 years of service (n = 42, in minutes, c)](image)

### Table 2

<table>
<thead>
<tr>
<th>Mark</th>
<th>Running 100 m, c</th>
<th>Pulling-up, times</th>
<th>Running 3000 m, min., c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cadets of 5th year of study</td>
<td>Officers of 1st age group</td>
<td>Cadets of 5th year of study</td>
</tr>
<tr>
<td>5</td>
<td>13,8</td>
<td>14,6</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>14,2</td>
<td>15,0</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>15,0</td>
<td>15,8</td>
<td>10</td>
</tr>
</tbody>
</table>

**Conclusion.**

The decrease of the level of physical preparedness of the students of the 5th year is established. Officers, who additionally do not engaged in physical training, have reducing of results of physical qualities during service in officer positions. Officers, who formed the desire and interest to systematic exercise while studying in higher educational establishment and continue to go in for sport after graduation, have consistently high results.

**Prospects for future research** is to analyze the performance of functional status and level of officers’ physical

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health in the younger age groups in the service activity.

References:

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Cite this article as: Maglovanyy A.V., Boyarchuk A.M. Problems and ways of perfection of physical training of junior officers. Pedagogics, psychology, medical-biological problems of physical training and sports, 2013, vol.1, pp. 44-48. doi:10.6084/m9.figshare.106938

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Received: 12.12.2012
Published: 31.01.2013