UDC 7.012.8:658.336 (045)

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# PRINCIPLES OF CENTER INTERIOUR PILOT TRAINING OPERATORS OF UNMANNED AIRCRAFT.

*Abstract: This paper studies the development of specialized training interiors. We found the principles of functional and spatial organization of interiors center pilot training operators of unmanned aircraft. All rooms are categorized on the basis of the center functionality.*

*Keywords: principles, functional organization, spatial organization, pilotless aircraft, UAVs, the pilot - the operator of the interior.*

**Statement of the problem.** In terms of active development of unmanned aircraft there is need to create an educational center that will deal with the preparation of specialists in the operation of unmanned aerial vehicles (UAVs). Institutions for training aircraft should be as focused on gaining practical skills. This is especially true for new trends in the aviation and aerospace industries. Pilot training operators of unmanned aircraft is one of the priority areas of development. To date, unlike advanced countries, we have not developed unmanned aircraft industry, but at the NAU historically scientific groups such as "Virage" with developments in the field of unmanned aircraft, but even in the presence of advanced technology with experienced professionals (pilots) Operating UAVs its further development is not possible.

There is a need to create a training center that will deal with the preparation of specialists. The room of the center must comply with the requirements that are different from mainstream education. The difficulty of forming such an institution is the lack of curriculum but technology alone training process makes a number of requirements for facilities planning and training facilities. Important in the interior of training halls are not only aesthetic appeal but also functional component that should provide ease of communication of teacher - a group of students, teacher - one student, student - student, ease of receiving of theoretical nobility of different media ( lecturer, digital media, books, etc.) to provide training opportunity for each student individually, group, teacher an opportunity to observe, monitor, make adjustments in the educational process, and so on.

**Analysis of recent research and publications ..** After analyzing the research of the authors in the field of unmanned aircraft as Sylkov VI, VM Ilyushko, M. Mytrahovych AV Samkov, A. Soloviev, VI Strel'nikov who worked on engineering problems of most aircraft, excluding management problems, so there is need to develop a center for the training of control UAVs.

In turn, AL Gelfond worked on the organization of public places, including schools. But the author did not investigate the creation of a specialized institution for the training of pilots, operators of unmanned aircraft.

**The wording of Article goals.** Objective is to identify the principles of functional and spatial organization of interiors center for training pilots of unmanned aircraft operators.

**The main part.** In order to maximize the efficient use of the training center should be in planning, zoning, furniture and technical equipment of classrooms to take into account the following principles:

1. Functional zoning is divided:
- the principle of active and passive activities
- principle of necessary communication
- principle subconscious (consistency)
2. Optimization (convenience), which is divided:
- the principle of reducing the time
- the principle of simplification
3. Universality subdivided:
- principle impersonation
- the principle of variability.

The principle of functional zoning - the distribution of individual rooms or other areas of the individual functional areas. This principle states that different kinds of students, teachers, service personnel should be separated, if possible, to separate rooms or areas for various purposes in the same space. This principle includes three secondary principles.

The first principle of "active-passive activity" - meaning that all areas should take into account the space, equipment, furniture, etc., given that this area is designed for activities (training, testing, workshops, etc.), or to a passive activity ( lecture, review teaching materials, theoretical studies, etc.) also should be considered or intended area for individual or for group activities.


The second principle is "required communications". This principle will account for communication in the classroom. During the training, there is a communication link between a teacher and a group of students, sometimes it is necessary to communicate with just one student teacher (individual communication) and communication between small groups of students (2 or more 2) in the case of group sessions. (Group communication)

The third principle of "subconscious (logic)" - allows the user to intuitively navigate the space. By thankfulness modeling scenario of human presence in the room at the project level, we can predict variations reasons and objectives of stay. What will affect the inventory and order of the premises, and the objective of filling them.

The next principle is the principle of "optimization (convenience)." This principle
can improve the effectiveness of each action performing students or teacher during the learning process by reducing the time to prepare for classes, all required for maximum distance available, to minimize the movement of the audience during the session.

Following the principle of "universality", allows you to create an opportunity to engage audiences in a variety of activities based on the educational objectives for the whole group or for each student individually. For the convenience of such studies should take into account "the principle of impersonation." It allows you to create a comfortable environment for a person engaged in a particular activity by conventional delimitation. You should also consider the "principle of variation", which makes use of the same audience with different assignments or carry out various educational tasks in the same workplace. Apply this principle to allow the interior of things - like furniture designers, different technical equipment, light - adjusting techniques, and so on.

All facilities of the training center can be divided into:

1. Lecture or lecture room. (Equipment such premises conducted in accordance with the usual requirements)
2. Facilities for practical training or training room. (Must meet specific requirements, such as: unique specialized equipment that can be made on the basis of NAU (aircraft simulators, training devices), and must meet the requirements for flight simulators. Such facilities must have adequate finish that does not interfere with learning and distracts . (color light))
3. Room teaching (must include appropriate furniture, equipment, finishes, be created to prepare for employment and leisure).
4. Ski personnel (must include equipment for maintenance of modern technology).
5. Ski holiday (different from the training facilities for furnishings, lighting, atmosphere).
6. Auxiliary facilities (for normal finish)

**Conclusions.**

1. To date, there is a social demand for unmanned aircraft, and hence there is a need for its development.
2. Further the development of unmanned aircraft is possible only if training in the operation.
3. Pilot training operators requires the creation of a specialized institution.

4. Requirements analysis center, indicates that the requirements of the standard match, and some interior equipment must meet specific requirements.

5. To create a training center based on the specificity of training future specialists developed the principles of functional and spatial organization.

**Prospects for further research.** Deeper consideration of the problem of detailed design principles of functional and spatial organization of interiors center for training pilots of unmanned aircraft operators. Applying the principles in practice.

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