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### **Modern Aviation Terminology: Translation Problems**

*The research is devoted to the problem of translation of modern aviation terminology. The role of the English language borrowings in the formation of the terminology system of the aviation industry is considered. The ways and reasons of borrowing are found out, foreign and intrinsic reasons of borrowings are determined in the studied terminology system.*

Scientific and technical terminology is a broad vocabulary where terminology develops intensively and interacts actively with each other. Therefore, the study of the laws of the formation of terminological vocabulary, its structure and semantics has become one of the most important tasks of modern terminology studies of linguistics.

There is a large amount of linguistic research devoted to terminology vocabulary in the development of modern linguistics. General theoretical problems of terminology were considered by G. Vinokur, O. Wuster, A. Gerd, B. Golovin, V. Danilenko, T. Kandelaki, G. Rondo and others. The problem of translating terms from English into Ukrainian was and remains one of the most relevant in modern translation studies. Studies of the transfer of terms in the translation process were conducted by scientists F. Zitkina, T. Kyyakom, Y. Zatsnym, A. Yegorova, S. Komarova and others.

Although the terms, as well as the commonly used vocabulary, refer to concepts and subjects, the main difference between the term and the commonly used meaning of a word is that when the transition of commonly used words into the category of terms, the latter begin to express special concepts that are marked by the accuracy and depth of the expression of reality on the essential features. The word is usually multi-valued. The specification of a given word value is provided every time by context. It is the context that eliminates the ambiguity of the word and limits the scope of its correlation. A term may be a word or a phrase, but their correlation is always unambiguous. Consequently, an indispensable characteristic of the term is its uniqueness within a certain field of science or technology. In other words, the term - a word or phrase, the linguistic sign of which relates to one concept or object in the system of concepts of a particular field of science or technology. He has the following characteristics: 1) non-emotionality, ugliness, bookishness; 2) terminology; 3) partial (suffixal, prefixal) or full internationality; 4) seriality of the formation of stable phrases; 5) in fact, the complete absence of phraseologisms.

The relevance of the study is to determine the role of English-language borrowing for the formation of aviation industry terminology. The composition of the Ukrainian aviation terminology, in particular, replenishment due to the borrowing of foreign language units, has been analyzed. The ways and reasons of borrowing are found out, foreign and intrinsic reasons of borrowings are determined in the studied terminology system.

Terminology has its own specificity, which consists in the fact that a large number of special words is borrowed from other languages by the professional broadcasting, which is connected with scientific and technological progress, cooperation of scientists from different countries of the world. The vocabulary of terminology systems is the most actively replenished and changed. One of the main features of terminological vocabulary replenishment is the use of foreign words and their components for naming new concepts. English morphemes, as well as classical terms, meet the requirements of accuracy, brevity and ensure the uniqueness of the term [7].

Turning to the algorithm of translation of aviation terms, we note that during the translation process it was important to consider: the proportionality of the formal-content organization of the term as a linguistic form of expression and the corresponding scientific concept, which is reflected in the logical formulation of the definitions of the register term units; the active functioning of terminology units simultaneously in various fields of knowledge.

Language interaction is a process that arises and develops as a result of linguistic contacts established between languages under bilingualism and is a factor in changes at different levels of the linguistic system. The borrowing process is accompanied by the development of foreign-language vocabulary at all language levels of the recipient language system. English-language terms, for the most part, adapted to the phonological norms of the modern Ukrainian language, losing the unusual language-recipient traits. Significant quantitative and qualitative differences in the vocal systems of English and Ukrainian were conditioned by the fact that in the process of adaptation, more changes occurred in the system of vocalism.

The study of the terms of the Anglicisms of the aviation industry at the grammatical level of the Ukrainian language showed that the absolute majority of English-language borrowings entered the lexical-grammatical category of the noun, which fully corresponds to the general tendencies of borrowing foreign-language vocabulary. Analysis of the results of mastering at the level of the main grammatical categories gives reason to assert that the English-speaking terms-nouns, in general, were completely subordinated to the grammatical norms of the Ukrainian language and function within the paradigms inherent in the specific nouns.

The main grammatical changes are the consistent loss of the article and the acquisition of a grammatical category of the kind that is not specific to nouns of the English language. The determining factor in referring Anglicism's to a certain category of kind is the formal factor. In the system of rejection, the vast majority of English-language borrowings, including complex words and phrases, functions in accordance with the norms of the Ukrainian language and acquires the paradigm of the specific vocabulary. Deviations from the norms of the Ukrainian language are the functioning of non-changing English-language borrowings, and they form a separate morphological group of irreplaceable nouns and are located on the periphery of the grammar system of the Ukrainian language.

English-language nouns, as a rule, do not undergo changes in the numerical paradigm and form a plural in accordance with the laws of the Ukrainian language and through the means inherent in it. The analysis of the morphemic structure of

Anglicism's in the recipient language has shown that the basics of the English-language terms in the Ukrainian language for the most part do not acquire sufficient morphemes divisibility; derivative borrowed foundations function as indivisible. Changes in the morphemic structure of English-language borrowing are typical for borrowed vocabulary.

At the stage of entering into the system of the Ukrainian language we observe the simplification of derivatives of the English language bases and the vocabulary of word combinations. The collapse and build-up of borrowed bases is due to the execution of English terms with Ukrainian suffixes, which gives them the opportunity to formally approach the specific words of the Ukrainian language.

The modern development of scientific translation requires more active research on translation of the terms of various fields. Ukraine belongs to a few countries of the world with a full cycle of aviation engineering, and ranks fifth in the world market by the level of development of aircraft construction. Problems of decoding and translating aviation terms were covered in scientific circles, but require more elaboration and resolution. Consequently, the peculiarities of decoding aviation terms in the process of the English-Ukrainian translation are an actual topic for translation studies.

The translation of scientific and technical terms in a particular industry requires some knowledge and techniques. After all, the person who translates the scientific and technical text must not only have a good command of the foreign language in which the material is written, but at the same time have some knowledge in the particular area to which the work is devoted. Only the combination of these two requirements makes it possible to make an adequate translation of scientific and technical literature, since the meaning of the terms and phrases used is closely related to the context and may vary depending on the field of use [10; 287-289].

The development of modern science, technology, and technology leads to the emergence of specialized spheres of human activity, as a result of which there are specialized spheres of communication. They require the formation of special linguistic branches of social life. Transmission of information in aviation is archival. The speed, accuracy and reliability of the whole "human-machine" system depend on the accuracy and timeliness of receiving information by the aircraft operator, reliability of its preservation and reproduction. Scientific intelligence in the field of English aviation vocabulary, devoted mainly to its synchronous analysis and limited to the twentieth century.

Let's try to understand in which languages borrowed Ukrainian and English aviation terms. In the English aviation terminology, the overwhelming majority is made up of terms borrowed mainly from Latin and Greek. Terminologists distinguish two main reasons for the development of terms: 1) deeper knowledge of already known or the discovery of new facts of objective reality; 2) own development of this reality, the emergence of new facts, events or phenomena. In the first case, the term is mostly replaced by more precise, and the terminology becomes more complete. For example: with the complication of the tail section of the aircraft there was a detail of the English term tail and the Ukrainian term *xbicm* (English tail - tailunit, tailassembly, Ukrainian *xbicm* - tail, tail feathers). In the second case, the

terminology involves new elements that reflect new objects or realities (English *engine - aviation engine - pistonengine - turbo-propengine - turbo-jetengine*; Ukrainian *двигун – авіаційний двигун – поршневий двигун – турбогвинтовий двигун – турбореактивний двигун*).

The vast majority of terms were formed in the Ukrainian language on the basis of Greco-Latinisms (mainly the terms of the old branches) and the terminology of the Germanic and partly Romanesque languages. The terms for borrowing from English (*авіація, авіопілот, аеропорт, гелікоптер, радар*) and French (*фюзеляж, шасі*) languages prevail in the Ukrainian aviation terminology system. Some terms are borrowed from a closely related Russian language (*башмак, кабан*). The penetration of foreign words is a logical process through which acquaintance with new subjects, concepts, achievements, elimination of the ambiguity of its own vocabulary takes place.

In aviation terminology, ambiguity and the use of different words to denote a single phenomenon or process must be avoided. But there are such words. A striking example is the words *вертоліт, гелікоптер та гвинтокрил*. In the article L.A. Khalinovskaya the functioning of these tokens in the aviation terminology system is considered in detail. She proposes to delineate the terms *вертоліт* (implicit differential sign «absence of the wing») and *гвинтокрил* (differential sign – крило «wing»). The term *гвинтокрил* «gwingocril» has a synonym for a combined вертоліт (synonymization based on common features *крило* «wing», *гвинт* «screw»). The terms *вертоліт* and *гелікоптер*, in opinion of scientist, are absolute synonyms (synonymization based on the *гвинт* «screw») [8; 64].

The study of the word-formation activity of the analyzed Anglicism's in the system of the Ukrainian language revealed their potential ability to adapt to the creators of the language of the recipient. The productivity of individual word-building models in the derivation of derivative terms from borrowings - Anglicism is influenced by the peculiarities of terminology in the system of Ukrainian terminology. Lexical-semantic development of English terms is accompanied by changes in the semantic structure and nature of the meanings of borrowed terms in the Ukrainian language system and changes in the individual components of the lexical semantic system of the recipient language as a result of the interaction of terms of English origin with specific terminology. The semantic changes of the Anglicism's in the Ukrainian language system, which are revealed through comparisons of the semantic borrowing structure and its prototype, are typical of the process of translating the word from one language to another: the simplification and complication of the semantic structure, narrowing, expansion and change of meaning.

At the stage of entering the system of the Ukrainian language, the simplification of the semantic structure occurred in most polysemantic English-language terms. Some of them entered the Ukrainian language system in one of lexical and semantic variants, and these terms in our language are monosemantic. The sound and expansion of the English terms on the values of their etymons in the language of sources is directly related to the specialization and generalization of the

corresponding concepts, as well as with the narrowing and expansion of the scope of the term.

### **Conclusions**

An analysis of the semantic adaptation of the terms Anglicism's revealed the instability of the values of many borrowings due to insufficient scientific understanding of the corresponding concepts in the recipient's terminology system due to the short term of their use in the new terminology system. This testifies to their incomplete development at the level of semantics, because the understanding of the concept is defined as an important factor in the semantic development of the borrowed term.

The research has shown that there is a significant influence of English terminology on the formation of the studied terminology at the present stage. An analysis of the use of English-language borrowings on the semantic, phonetic and word-formation levels provides grounds for arguing that English-language borrowing is an important component of the formation of aviation terminology. The study of the development of English terms in the Ukrainian language system showed that Anglicism's are undergoing formal changes - in graphic reproduction, phonemic composition, morphemic structure and grammatical form, as well as functional changes at the level of word formation and semantics.

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