

# ФИЛОЛОГИЧЕСКИЕ НАУКИ

## SECONDARY NAMING IN AVIATION TERM SYSTEM

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**Abstract.** The features are considered of the secondary name in Ukrainian aviation terminology. The onomaseological base and the onomaseological feature have been determined of the secondary naming in the aviation term system; lexical-semantic groups of words have been identified that served as a basis for metaphorical rethinking; the motivation have been analysed of the aviation terms.

**Keywords:** term, secondary naming, onomaseological basis, onomaseological feature.

The active study of scientific terminology in general and industry terminology in particular is the priority direction of the modern Ukrainian linguistics. In this aspect, research is of great relevance into the terminological fund of various fields of knowledge related to human technical and industrial activity, from which the Ukrainian language has been artificially removed for a long time through Soviet policy directives. The aviation industry holds a prominent place among the fields of scientific knowledge, which “belongs to those complex fields of engineering and technology (production) that are actively developing, thus requiring a clear naming of new concepts, thorough analysis and systematization of existing terminological fund, its further streamlining improvement” [8, p. 1].

The modern linguistic studios show a noticeable increase in the level of interest of scientists for the formation and development of Ukrainian aviation terminology. However, the coverage of the outlined scientific issue is largely fragmentary. Thus, the specifics of translation and adaptation of the English etymology aviation terms in the Ukrainian linguistics and resulted processes of normalization in the national terminology are considered by G. G. Fesenko [7]; semantic structure and formation peculiarities of aviation terms-phrases are appropriately analysed by D. Kh. Barannyk [1]; O. Kovtun outlines the issue of formation of Ukrainian aviation terminology [4]; L. A. Khalinivska integrally researches Ukrainian aviation terminology as a separate branch system of terms in the general terminology structure [8].

The latest studies of term systems are based on the combination of two approaches to the understanding of the language system – semasiological and onomaseological. Where the semasiological aspect of the term is directed from the word to its meaning, the onomaseological aspect – from the meaning to the word. The main purpose of the onomaseological approach in modern terminological science is to find among the nominative resources available in the language the most accurate and clear names for reflecting new scientific concepts. The secondary naming holds a prominent place among the onomaseological means of term formation, the study of which increasingly generates interest among modern

researchers of the industry terminology (S. Z. Bulyk-Verkhola [2], N. Gymer [3], G. O. Morozova [5], N. Z. Tsisar [9] et. al.).

Term units generated through the secondary naming form a noticeable layer of Ukrainian aviation terminology. However, the outlined terminological material has not yet been the subject of special linguistic research in Ukrainian Studies, which makes our research relevant.

The purpose of the proposed paper is to analyse the peculiarities of secondary naming in Ukrainian aviation terminology, the implementation of which involves the following tasks: identify the onomaseological base and the onomaseological feature of the aviation concepts naming on the basis of associations by similarity; identify lexical-semantic groups of words that served as a basis for secondary naming; analyse the motivation of aviation terms formed as a result of secondary naming.

The national linguistic literature identifies the secondary naming as the use of nominative means already available in the language in a new role – naming [6, p. 129]. Our secondary naming study in the aviation term system is based on the principles of onomaseological doctrine developed by the Czech linguist M. Dokulil, the essence of which is the recognition of the onomaseological category as the central notion of the naming theory, which covers the onomaseological bases and onomaseological feature. The external form of the word present in the language serves as onomaseological basis in the process of secondary naming, acting as the name for a new concept, and indicators that motivate the choice between the variety of nominative means of a particular material complex serve as onomaseological feature to indicate a new concept [10].

Based on our observations, the commonly used words and terms of other term systems, which, due to metaphorical rethinking, have acquired new terminological meanings, serve as the onomaseological basis for the secondary naming in the aviation term system. The selected factual material gives grounds to state that the following lexical-semantic groups of common words are the motivational base for the aviation terms formation:

1) names of household items, for example: *kachalka* (*rolling pin*) – “a round, smoothly carved stick for rolling laundry, dough, ironing, cloth smoothing, etc.” (VTSSUM, p. 421) and *kachalka* (*walking beam*) – aviation, “control system element; made in the form of a lever that can rotate at a certain angle according to the fixed axis of rotation” (TSAT, p. 37); *shtopor* (*corkscrew*) – a “screw-shaped rod with a handle intended for bottle opening” (VTSSUM, p. 1407) and *shtopor* (*nose-spin*) – aviation, “airplane movement along a downward spiral trajectory of small radius at significant closed angles of attack, which develops as a result of wing autorotation and destabilizing moment of inertia; acrobatic maneuver” (TSAT, p. 96). The meaning of the commonly used word *kachalka* was transferred based on the ‘stick shape’, ‘ability to rotate in a certain direction’, and the commonly used lexical item *shtopor* – based on ‘spiral, helical’;

2) names of vessels, for example: *a barrel* is a “large wooden or metal cylindrical vessel, mostly convex in the middle, with two flat bottoms” (TSAT, p. 61) and *a barrel* (*rolling maneuver*) – aviation, “air maneuver in a horizontal flight, where the aircraft rotates fully around its longitudinal axis; acrobatic maneuver” (TSAT, p. 12); *a box* is “a small container of various shapes made of cardboard, plastic, plywood, etc.; usually with a lid” (VTSSUM, p. 455) and *a box* – aviation, “general name of a part of an airplane’s structure or its basic functional systems, in which the devices of automation systems, controls, structural elements, various units, etc. are compactly mounted” (TSAT, p. 43). Metaphorical transfer of the meaning of a commonly used word *barrel* → aviation, *barrel*, occurred due to formal resemblance based on ‘cylinder-like shape’, and commonly used *box* → aviation, *box* – due to functional similarity (based on ‘to place something’);

3) names of structures, construction devices, for example: *a barrier* – “low-level handrails, fence, lattice, enclosure” (VTSSUM, p. 37) and *a barrier* – aviation, “flight velocity, at which the heating of a rocket, spacecraft, etc. due to air friction reaches a critical point and may cause failure” (SIS, p. 152); *a lock* – “a device for locking doors in rooms, doors of cabinets, chests, drawers, etc.” (VTSSUM, p. 312) and *a lock* – aviation, “device for connecting or securing, locking moving parts of machinery and mechanisms preventing their relative movement, rotation, etc.” (TSAT, p. 29). The metaphorical transfer of the meaning of the commonly used words *barrier* and *lock* occurred due to the similarity of functions based on ‘obstacle’ (*barrier*), ‘lock → connection’ (*lock*);

4) names of interior details, for example: *blinds* – “shutters or draperies made of narrow boards or metal plates to regulate light and air flow indoors” (VTSSUM, p. 272) and *blinds* – aviation, “ventilation grilles with fixed or rotating elements or multi-leaf air permeable shutters or plates in aircraft radiators and hoods that regulate airflow to cool an aircraft engine or other structural elements, or to protect against radiation, atmospheric precipitation, dust, etc.” (TSAT, p. 26). The onomaseological feature resulting in a new, terminological meaning – ‘draperies – shutters – lattices for air flow regulation’;

5) names of clothing and accessories, for example: *mufta* (*muft*) – “kind of female dress made of fur or cotton wool to warm up hands” (VTSSUM, p. 545) and *mufta* (*coupling*) – aviation, “device for connecting shafts of machines, pipes, ropes, cables, etc.” (TSAT, p. 55); *kozjukh* (*mantel*) – “long mantel without felt pad and with a large collar, usually sewn of sheepskin with a fur to the middle” (VTSSUM, p. 438) and *kozjukh* (*casing*) – aviation, “shell, case, cover, etc. to insulate or prevent damage to mechanisms and their parts” (TSAT, p. 40); *a belt* – “leather, fabric, knit, etc., long band for girdling clothes on the waist” (VTSSUM, p. 915) and *a belt* (*cap*) – aviation, “farthest from the neutral axis longitudinal element of the beam, which perceives longitudinal forces during its bending” (TSAT, p. 72). The formation of new terminological meanings of the commonly used words in aviation terminology was based on the following features: ‘cylindrical’, ‘ability to connect something’ (*muft/coupling*); ‘protective cover’ (*kozjukh/mantel*); ‘long band – longitudinal element’ (*belt*);

6) names of hairstyles, for example: *a kok* (*bun*) – “a hairstyle in the form of a beaten or curled strand of hair sticking up over the forehead” (VTSSUM, p. 439) and *a kok* (*spinning-top*) – aviation, “conical or hemispherical spinner that closes the windmill sleeve, fan disk, etc. to smooth the flow lines at the inlet and reduce aerodynamic drag” (TSAT, p. 40). The emergence of the aviation term *kok* caused associative links based on formal resemblance of the hairstyle and windmill shape by the feature of ‘convex’, ‘conical’;

7) names of entities and their associations, for example: *imitator* (*mimic*) – “one who parodies someone, anything; variety actor-sound-inheritor” (VTSSUM, p. 396) and *imitator* (*simulator device*) – aviation, “device (system of devices) that simulates given “flight” conditions (mostly under laboratory conditions) and used in the preparation of flight crews” (TSAT, p. 32); *generation* – “a set of relatives of the same degree of affinity with respect to a common ancestor” (VTSSUM, p. 842) and *generation* – aviation, “a set of aircraft of the same degree of affinity for technical and operational data over a period of time” (TSAT, p. 67). The meaning of the aviation term *imitator* is based on the semantics of the corresponding commonly used word, in particular, on the basis of ‘play something’; aviation term *generation* meaning based on ‘aggregate’, ‘affinity’, ‘same degree’;

8) names with quantitative meaning, for example: *eight* – “name of the figure 8” (VTSSUM, p. 148) and *eight* – aviation, “maneuver: the movement of the aircraft along a closed curve in the form of a figure 8. Runs in the horizontal or vertical planes as two turns of different directions” (TSAT, p. 15); *index* – “indicator, list of something” (VTSSUM, p. 398) and *index* – aviation, “digital or alphabetical indicator of aviation units and enterprises, aircraft systems and their components and parts, flights, etc.” (TSAT, p. 33). The meaning of the aviation term *eight* is based on the meaning of the corresponding commonly used word due to metaphorization of formal resemblance, in particular ‘shape of figure 8’; the meaning of the term *index* – based on the archiseme of the commonly used lexical unit *index* ‘indicator’;

9) names of properties, for example: *zhyvuchist* (vitality) – property by the meaning of viable; *zhyvuchy* (viable) – “able to endure hardships, survive in difficult conditions, support and preserve life” (VTSSUM, p. 275), and *zhyvuchist* (ruggedness) – aviation, “ability of the aircraft to continue flight after damage received in the air, failure of important assemblies, units or parts” (TSAT, p. 26); *zhorstkist* (stiffness) – aviation, “ability of an element or the entire structure to resist deformation” (TSAT, p. 26) and *zhorstkist* (rigidity) – noun for *rigid*; *rigid* – “having a hard, uneven surface // with a thick, rough skin; rough” (VTSSUM, p. 278). The terminological meaning of the words *zhyvuchist*, *zhorstkist* occurred due to the secondary naming of the features ‘endurance’ → ‘ability to continue flight’ (*zhyvuchist* (survivability)) and ‘hardness’, ‘resilience’ by the similarity of certain properties of the object.

The linguistic material shows that the parallel functioning of the word in the common use and in the aviation industry produces its polysemy, which is an obstacle to the accurate and correct expression of thoughts. It is common for terminologisation of the commonly used lexical units, in some cases, the specification of their meanings, in other cases – extension of semantics, which in both cases often causes changes in the compatibility of such words. Thus, a commonly used word *bochka* (barrel) is combined with the following specifiers: *large barrel*, *wooden barrel*, *oak barrel*, *metal barrel*, *cylindrical barrel*, etc. Whereas, the aviation term of *bochka* (rolling maneuver) – with the following specifiers: *multiple rolls*, *ascending roll*, *controlled roll*, *one and a half roll*, *slow roll*, etc. The lexical item of *kozhuikh* (mantel) in the syntagmatic conditionality of choice forms the phrases of *long mantel*, *warm mantel*, *new mantel*, *sheep mantel*, *natural mantel*, etc.; whereas, the aviation term *kozhuikh* (casing) – *protective casing*, *fan casing*, *combustion chamber casing*, *compressor casing*, *blowing casing*, *windmill casing*, *ring casing*, *control knob casing*, *nozzle casing*, *turbine nozzle casing*, *turbine casing*, *turbocharger casing* and the like.

Sometimes we come across the transition of the commonly used words to the category of aviation lexical items, which in general use have a distinct emotional-evaluation pattern, for example: *korobochka* (small box) – diminutive of *korobka* (box) (VTSSUM, p. 456); *korobka* (box) is “a small container of various shapes made of cardboard, plastic, plywood, usually with a lid” (VTSSUM, p. 455) and *korobochka* (racetrack) – aviation, “formation of planes (helicopters)”; “single-aircraft flight maneuver” (TSAT, p. 44); *girka* (small mountain) – diminutive of mountain (VTSSUM, p. 183); *gora* (mountain) is “a significant rise over the surrounding countryside or among other elevations” (VTSSUM, p. 191) and *girka* (nose-up maneuver) – aviation, “flight maneuver that represents the short-term movement of an aircraft along an ascending trajectory” (TSAT, p. 18); *zmiika* (snake) – diminutive of snake (VTSSUM, p. 373); *zmiia* (snake) – “a reptile with an elongated body covered with a scale” (VTSSUM, p. 374) and *zmiika* (bank-to-bank reversal) – aviation, “acrobatic maneuver” (TSAT, p. 31). Usually such words contain in their structure a positive evaluation of diminutive suffixes, which in the

process of secondary naming lose their inherent connotative pattern.

The secondary namings in aviation terminology often result from metaphorical transfer or semantic displacement in terms of other fields of knowledge. In particular, the lexical units from the following term systems became the onomaseological base for secondary names in aviation terminology:

1) anatomical, for example: *horlo* (throat) – anat. “front of the neck, in the middle of which there is an origin of the esophagus and respiratory tract; the cartilage canal, which is the origin of the esophagus and respiratory tract” (VTSSUM, p.192) and *horlo* (neck) – aviation, “narrowest cross-section of the flow part in the inlet diffuser (air collector) or turbine nozzle” (TSAT, p. 18) – transfer based on formal resemblance in shape, in particular by the feature of ‘narrow channel’; *diaphragm* – anat. “midriff separating the thoracic cavity from the abdomen” (VTSSUM, p. 226) and *diaphragm* (disc) – aviation, “partition inside the shell of an airship or balloon, which divides the space occupied by gas into several parts; in some cases, a partition that separates the gas space from the air space (TSAT, p.21) – transfer by formal resemblance and functional similarity based on the features of ‘partition’, ‘line separating something from something’; *tooth* – anat. “bone formation in the oral cavity of humans and many vertebrates, intended for grasping, biting and grinding food, as well as for protection” (VTSSUM, p. 388) and *tooth* – aviation, “projection on a part to convey movement by interacting with the corresponding projections of another part” (TSAT, p. 32) – transfer based on formal resemblance by the feature of ‘formation’ → ‘projection’; *wing* - anat. “flying organ of birds, insects and some mammals” (VTSSUM, p. 465) and *wing* – aviation, “fixed plane surface of the aircraft supporting it during flight” (VTSSUM, p. 465) – transfer based on formal resemblance and functional similarity by the features of ‘flying organ’ → ‘flat surface for air support’; *tail* – anat. “appendage on the back of the animal's body that is an extension of the spine from the sacral bone” (VTSSUM, p. 1341) and *tail* – aviation, “name of the rear of the aircraft from the wing back” (TSAT, p. 90) – transfer based on formal resemblance “back of something”;

2) zoological, for example: *amfibiia* (Amphibia) – zool. “an amphibian, whose larvae breathe through gills, a mature specie – with lungs” (VTSSUM, p. 16) and *amfibiia* (scooper) – aviation, “airplane adapted to take-off and land on water surface” (TSAT, p. 10) – a secondary naming based on the similarity of functions by the feature of ‘adapted to water’; *kachka* (duck) – zool. “a waterfowl and wild bird, valuable for its meat, eggs and feathers; female cock duck” (VTSSUM, p. 421) and *kachka* (canard) – aviation, “airplane with a horizontal fins placed in the fore-body of the aircraft in front of the wing” (TSAT, p. 38); *cherviak* (worm) – zool. “an invertebrate animal that moves around, bending its soft elongated body” (VTSSUM, p. 1374) and *cherviak* (slide screw) – aviation, “a gear wheel in the form of a screw for the transmission of movement in some mechanisms” (TSAT, p. 92) – metaphorical transfer based on formal resemblance of aircraft or aviation devices to the representatives of the animal world by the feature of

'horizontal feathering (for *kachka*), 'number of rings' (for *cherviak*);

3) botanical, for example: *root* – bot. "part of the plant contained in the earth by which the plant absorbs nutrient water from soil" (VTSSUM, p. 455) and *root* – aviation. "basis of the structural element of the aircraft or its functional unit" (TSAT, p. 43) – onomaseological feature is the 'basis of anything';

4) theatrical, for example: *suflivannia* (*prompting*) – theatre "to prompt text to the actors of the role during rehearsal and performance" (VTSSUM, p. 1219) and *suflivannia* (*breathing*) – aviation, "maintain certain pressure in the crankcase, fuel tanks, etc. by removing gases from them with the help of a special valve" (TSAT, p. 84) – transfer on the basis of functional similarity of 'prompt' → 'maintain';

5) military, for example: *eshelon* (*echelon*) – milit. "a separate part of in-depth separated combat order or column of troops moving at some distance one from another" (VTSSUM, p. 268) and *eshelon* (*flight level*) – aviation, "flight altitude reserved for a cruise flight of a particular aircraft" (TSAT, p. 25) is a secondary naming on the basis of 'move at some distance' → 'given flight level'.

Therefore, the most motivating base for formation of aviation terms is the term units of the distant from aviation natural term systems. Semantically codified terms that have changed the scope of their functioning are changing their syntagmatics accordingly.

The main onomaseological features for naming a new concept in the aviation industry are those that express: 1) formal resemblance (*bochka*, *eight*, *girka*, *horlo*, *zmiika*, *tooth*, *kachka*, *kok*, *box*, *belt*, *tail*, *cherviak*); 2) functional similarity (*amfibiia*, *barrier*, *survivability*, *rigidity*, *lock*, *eshelon*, *imitator*, *index*, *kozhuKh*, *root*, *box*, *pilon*, *generation*, *suflivannia*, *mufta*); 3) formal resemblance and functional similarity at the same time (*diaphragm*, *kachalka*, *wing*, *mufta*). Most often, functional similarity forms the basis for semantic change and rethinking (47%), somewhat less often – formal resemblance of nominees (41%), and even less often – formal resemblance and functional similarity at the same time (12%). Secondary naming terms make up a notable layer of Ukrainian aviation terminology.

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