

UKRAINIAN STATE STANDARDS IN PHOTOGRAMMETRY AND AEROSPACE SURVEYING (TERMS AND DEFINITIONS)

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Commission WG, VI/1.

KEY WORDS: Terminology, Photogrammetry, Aerospace Surveying, Standard.

ABSTRACT:

Since the Declaration of Independence of Ukraine (1991) an intensive work on creating terminology in Ukrainian for all the institutions, companies, educational institutions has been carried out. The Ukrainian Cabinet of Ministers has among others the State Committee of Standardization and Certification. By the order of the Committee the authors have worked out and compiled two reference books "Photogrammetry. Terms and Definitions", and the other one is "Aerospace Surveying. Terms and Definitions". The paper describes the structure of the standards; it has introduction and description of separate chapters. The description of each term includes the term name and its meaning in Ukrainian, its corresponding name in German, English, French and the term Russian part also gives the description of the term and its meaning. The division of the terminological field into chapters of specific themes, selection of most widely used terms both theoretical and practical is substantiated. The total number of photogrammetric terms is 300, that of aerospace survey terms is 85.

MANUSCRIPT:

Since the Declaration of Independence of Ukraine (1991) was adopted, an intensive work on creation of terminology in Ukrainian for all the institutions, companies, educational establishments has been carried out.

The Ukrainian Cabinet of Ministers has among others the State Committee of Standardization and Certification. By the order of the Committee the authors have worked out and compiled two reference books: "Photogrammetry. Terms and Definitions", and the other one is "Aerospace Surveying. Terms and Definitions".

The main tasks for creation of Ukrainian State Standards on photogrammetry and aerospace survey were as follows:

- to fix updated Ukrainian technical terms and definitions, which could be used in standard and technical documents and literature;
- to correct drawbacks of existing terms system;
- to provide with complete Ukrainian equivalents to international standards, to make it possible to use them in informational system and for scientists understanding and cooperation.

The main problem was that Ukrainian terms on these branches of science did not exist in this country. Photogrammetry and aerospace survey has been developing actively for the last 50-60 years. The short period of independence (in the 20s of this century) caused considerable development of scientific terminology and creation of specialized dictionaries. But mostly they covered fundamental sciences: maths, physics, chemistry. The dictionary of geodetic terms was set as well.

But later under Stalin regime those dictionaries were cancelled as nationalistic e.i. harmful. Scientific-technical terms were substituted for Russian calques.

Thus the lack of Ukrainian terms was caused by two

reasons: the colonial situation in Ukraine and the narrow specialization which involved in the development of photogrammetry and aerospace survey restricted number of scientists who knew Ukrainian language.

It should be noticed that the activity of the seminar on scientific terminology preceded the working out of the State Standards.

The specialists in Geodesy, Photogrammetry as well as Ukrainian linguists were involved in the activity of the seminar.

The problems of analysis of different approaches to the defining of key-words and terms, the ways of selection and formation of Ukrainian terminology on photogrammetry and aerospace survey were discussed during the seminars.

The analytical selection of terms from some alternative variants was held.

As the language environment is a system, which changes and develops constantly together with society, the authors concentrated their attention on the necessity of refusing from the old patterns. The authors tried to avoid the influence of other languages on Ukrainian scientific and technical terminology.

Terminological Committee of Standards subordinated to the Ministry of Education of Ukraine operates at the University. The Committee can give the expertise about corresponding level of the standard developed in different branches of science and technology, e.g. mechanics, electromechanics, radio engineering, geodesy and others. Similar Terminological Committees are created in numerous cities of Ukraine at the leading Universities specially in Kyiv and they consider standards in different branches.

Terminological Committee on questions of standards and informatics of the University "L'vivska Polytechnica" organized three International Scientific Conferences "Problems of Ukrainian Scientific-Technical Terms". A

particularly fruitful and useful was the Work in sections where a group of experts worked on the problem of creation and perfection of Ukrainian scientific-technical terms. The most contradictory terms and expressions were discussed by a wider range of specialists. Specialists from the USA, Canada, Germany, Poland, Slovakia, Juhoslavia, Russia took part in the Conference.

Four representatives of the Chair of Aerophotogeodesy took part in International Scientific Conferences on the problems of Ukrainian scientific-technical terms.

While creating scientific-technical terminology on photogrammetry and aerospace survey the authors kept to:

- use of maths, physics, geodetic terms especially concerning optical pictures photogrammetric developement of aerophotographs, mathematical developing of photogrammetry measurements;
- preserving of international terms which originated from other languages (mostly Greec, Latin) creating Ukrainian sounding. This same point caused the hottest discussions taking into account the experience of Poles, Czechs who were not inclined to borrow from foreign languages while creating scietific-technical terminology;
- rejection of terms calqued from Russian and other languages; involving the terms used before or newlycreated ones on the base of Ukrainian word-building system.

In the State Standard "Photogrammetry. Terms and Definitions" there are 300 standartized terms on the topic. Terms and definitions concerning general technical terminology are not included in the issue.

It consists of 5 chapters: general notions; aerophototopography, ground stereophotogrammetry; space photogrammetry; techical devises and characteristics.

In the State Standard "Aerospace Surveying. Terms and Definitions" there are 85 standartized terms. The main part of the Standart coveres terms and definitions necessary for monosemantic understanding of aerospace installations, kinds of pictures as well as methods of survey

and developement of received materials. It consists of 5 chapters: general notions; aerospace installations and auxiliary equipments; the kind of pictures according to the type of survey system; kinds of photography, developement of photomaterials.

Each chapter has its own microstructure based on principle "from general to particular". While working out the State Standards of photogrammetry and remote sensing the standards used in the former USSR, international standards ISO which the author managed to receive, and special multi-lingual dictionaries were utilized. They were reviewed twice both by civil and military organisations of the corresponding profile.

In the Standards on photogrammetry and aerospace survey a single term is fixed for each notion. Terms possessing common components are included into the same entry but set in the square brackets.

German, Russian, English, French correspondences with standartized terms are given as references as well as definitions in Russian language.

In the Standards there are Ukrainian alphabetic index and alphabetic indexes of foreign correspondences with standartized terms.

The introduction of these standards will provide:

- 1). Specification of terms and definition of the photogrammetry and aerospace survey on the base of modern scientific-technical comprehension of these branches.
- 2). The creation of new single scientifically proved Ukrainian terminology on photogrammetry and aerospace survey which will assist to provide understanding between scientists.
- 3). Monosemantic understanding of the terms in professional standard and technical documents.
- 4). The relief in studying of the terms as well as in making translation of scientific and technical literature from one language into another.

The originals of Standards are demonstrated at presenting the paper.