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RELEVANCE OF SIMPLIFIED TECHNICAL ENGLISH IN KAZAKHSTAN IN THE FIELD OF AVIATION

Annotation. English is the international language of science and technology. English is not often the first language of technical documentation readers. Most are limited in knowledge of the English language. sentence structure and the large number of meanings and synonyms that many English words possess are complex.

Correctly understanding the maintenance and operation documentation is very important in aviation, it also affects the work of safety to protect human lives.

The purpose of this article is to highlight the importance of the ASD-STE100 document for students of the Academy of Civil Aviation in Kazakhstan. In this document, we will consider the relevance of applying this document during training in the aviation industry, as well as touch on the requirements for proficiency in technical English and summarize the basic rules aimed at facilitating the study and understanding of the English language.

Keywords. English, aviation, application in the educational sphere, rules and standards, simplification of the understanding of professional English texts, guidelines for the use of STE, advanced training, aspects of STE.

Introduction.

With worldwide travel quickly expanding gradually, the aeronautics field has become more multicultural and globalized. Overall, this accompanies some correspondence challenges. Seeing that the flight field affects individuals from various areas of the planet, how might there be a method for «*common ground*» to more readily work and convey great help?

In 1951, the International Civil Aviation Organization suggested English as the restrictive language for radio correspondences in the carrier business.

The worldwide language of the flying business and all specialized documentation is English, yet for 80 % of functional, upkeep and backing faculty in the avionics business English is not the local language. Subsequently, the issue emerges every day when in-administration staff, most of whom have a restricted information on the English language, are prepared to utilize the pertinent specialized documentation and there are vast open doors for confusion. Good communication is a safety factor!

In 1979, the *Association of European Airlines* (AEA) concept that a simplified language relevant to the plane preservation documentation used to be necessary. *The European Association of Aerospace Industries* normal the undertaking of discovering the solution, and for this purpose, it shaped the Simplified English Working Group (SEWG). After the preliminary evaluation of many protection texts, the SEWG described a set of writing rules, a managed dictionary and examples. By 2005, the product of this effort became the ASD Simplified Technical English.

Materials and methods.

STE used to be developed to make upkeep documentation less complicated to read, so authors of such documentation use it when they write these procedures. It is now not a language that you can use for “*general*” writing, for instance worldwide correspondence.

However, STE is not an English path book. This specification will assist the author current complicated data in an effortless form. Writing simply is a complicated undertaking and it is essential to have an excessive degree of fluency in English to write STE correctly.

STE can be a precious guide for technical translation. When STE used to be created, one of the essential targets used to be to make translation easier. If the vocabulary, meanings of words, and the sorts of sentence constructions in a textual content are controlled, the variant between texts will be minimal. Thus, it is less difficult for translators to translate textual content written in STE into the goal language.

The STE translator should be able to:

- 1) Translate a text written in another language into STE.
- 2) Translate a text written in STE into another language.

In essence, the simplified technical English norm *consists of two parts*: a section containing writing regulations and a section containing a minimal dictionary [2].

The writing regulations have to lead to as little ambiguity as possible. The dictionary consists of a constrained listing of verbs and nouns. These have to be phrases that lead to as little confusion as possible [3].

Part 1: writing rules

«Keep it short and simple»

1. Standardized grammatical constructions	Section 1 – Words
2. Use of tables for visual clarity of texts	Section 2 – Noun clusters
3. One word for one function, procedure or object	Section 3 – Verbs
4. Direct and clear commands in instructions	Section 4 - Sentences
5. One subject per sentence	Section 5 – Procedures
6. Limited number of words per sentence/sentences per paragraph	Section 6 – Descriptive writings
	Section 7 – Warnings, cautions, and notes
	Section 8 – Punctuation and word count
	Section 9 – Writing practices

There are more than 65 writing rules. The result of combining a controlled vocabulary with this grammar yields content that is clear and easy to follow, especially for non-native speakers.

Here are some basic rules from ADT-STE100:

1. Use solely words.
2. Use phrases from the dictionary solely as an authorised phase of speech and in an authorized meaning.
3. It is allowed to use nouns that are now not in the dictionary, however fall into the class of "technical names" (An approximate listing of such phrases and the concepts of their categorization are given.).
4. Use a phrase that is no longer in the dictionary solely if it is a technical identify or phase of a technical name.
5. Do not use technical names as verbs
6. Ensure compliance of technical names with the usual nomenclature - professional data and company documentation.
7. When deciding on a technical name, desire ought to be given to a shorter and extra comprehensible term.
8. Do no longer use slang and slang phrases as technical names
9. Do now not use exceptional technical names to designate one phenomenon.

10. It is allowed to use verbs that are no longer in the dictionary, however fall into the class of "*technical verbs*". (An approximate listing of such phrases and the standards of their categorization are given.) If there are options, choice is given to easy verbs from the dictionary.

11. The spelling of the phrases need to correspond to American English.

Example [4]:

Non-standard option: *Oil the steel surfaces.*

Standard option: *Apply oil to the steel surfaces.*

Non-standard option: *Remove the four stainless steel pan head machine screws that attach the metallic machined flange to the front housing cover.*

Standard option: *Remove the four screws that attach the flange to the cover.*

Non-standard option: *Test the system for leaks.*

Standard option: *Do a test for leaks in the system.*

Non-standard option: *If you find damage, send the engine back to the repair shop with instructions for the necessary repairs.*

Standard option: *If there is damage, send the engine back....*

Non-standard option: *Follow the safety instructions.*

Standard option: *Obey the safety instructions. Do the instructions that follow.*

Which is simpler to read? Now think about that you are an aircraft mechanic who speaks English as a second language. Although the first sentence is nonetheless understandable if you are a native speaker, it turns into more and harder for second-language speakers.

Part 2: dictionary

The simplified technical English dictionary serves solely purpose:
to do away with ambiguity.

Results and discussion.

Once more, a model outlines this. At the point when a specialist needs to make a specific showing, it is restricted to utilize the action word '*to elevate out*'. This action word could be deciphered in no less than two unique ways: as playing out a move and as making an article out of the current environmental factors. That is the reason 'to do' is liked. Utilizing the expression 'to do' is not permitted in STE.

How about we take a model. For a local speaker, the action word "*Rotate*" has an obvious significance, despite the fact that its importance changes with its unique situation. "*To rotate the cover*" signifies something different from a pilot telling his partner "to turn". For a non-local speaker, notwithstanding, "*rotate*" may sound excessively convoluted or, without a doubt, excessively questionable.

That is the reason "turn the cover" is not right STE. Rather than utilizing "*to pivot*", STE lean towards the more straightforward action word "*to turn*". This prompts a sentence, for example, "*Turn the cover*".

Sticking with a managed vocabulary helps decrease translation costs, due to the fact now the equal verbs and phrases that have already been translated won't require re-translation in computer-assisted translation programs [5].

In addition to the prescribed general terminology, the Simplified Technical English specification allows the use of company-specific or project-specific technical terms (which are referred to within the specification as technical names and technical verbs) if they fall into one of the categories listed in the specification.

Compliance with the above rules greatly simplifies the perception of the text by its readers. However, it leads to a significant increase in labor intensity for the drafters of documentation. Correct use of simplified technical English is not an easy task and requires a good knowledge of the English language, an understanding of the rules and provisions of the specification, as well as a deep mastery of the issue they describe. Authors who strive to correctly and professionally write the documents they develop should use the ASD-STE100

specification as their primary reference document. No other descriptive material can replace it. Partial use of the specification or deviation from individual rules of writing and use of terms will lead to a significant reduction in the efficiency of the work performed and to complication of the document for its users.

In any maintenance process, it is always the person who takes the final responsibility for recognizing flaws and errors in the process, understanding them and, as far as possible, correcting them. Consequently, the quality of maintenance is directly dependent on the full understanding of the documentation by the personnel working with it, and causes due to the "human factor" in maintenance are increasingly common in the investigation reports of various incidents and accidents.

For example, in 1994 Boeing conducted an analysis of 276 cases of in-flight engine failure aboard aircraft manufactured by the company, which identified the following causes:

- Incomplete installation (33%);
- Damage during installation (14.5%);
- Improper installation (11%);
- Equipment not installed or missed during installation (11%);
- Damage due to foreign objects (6.5%);
- Errors in fault location, inspection and testing (6%);
- Equipment was not properly activated or deactivated (4%)

The following analysis of maintenance processes clearly demonstrated that ineffective communication between system designers and maintenance personnel, which is accomplished through maintenance documentation, is a well-recognized factor in increased maintenance errors, which, in turn, impact the reliability, safety, and operational efficiency of aircraft systems.

It can be tough to remember the 900 words in the STE dictionary and sixty five writing rules. To assist with this, there are more than a few tools you can deploy as plugins in your authoring environment. These plugins act as grammar/style checkers that highlight trouble text and provide recommendations or explanations in the margins.

Etteplan, a technical offerings organisation based totally in Europe, Asia and North America, gives a plugin referred to as HyperSTE that integrates with most assist authoring tools. HyperSTE not only presents style and grammar checking for STE, it also lets you build your very own dictionaries. These customized dictionaries incorporate your company's particular language and product terms.

However, it should be remembered that none of the software products under consideration are capable of producing text in simplified technical English, or of converting non-specified text into one that conforms to the specification. Although these tools can spot out-of-specification terms and misspelled words, they are not error-proof. They should be used with extreme caution, and authors cannot fully rely on the accuracy of the results they produce. Only the author of a document can assess the correctness of the results produced by the tool used and their usability. Consequently, quality specialized training of the engineering staff in the application of the ASD-STE100 specification is a key aspect in the successful solution of the task at hand.

Rolls-Royce is an excellent example of the HyperSTE costumer. At one time, they decided to implement STE in their documentation to increase quality of the manuals. The editors and the writers have been taught the rules of Simplified Technical English ASD (ASD-STE100) and how to use HyperSTE software to ensure that all manuals conform to Simplified Technical English.

Results of the work performed:

- Compliance with ASD Simplified Technical English (ASD-STE100);
- Better quality and readability of manuals;
- Reduced cycle time;
- Better reusability of text;
- Standardized terminology and style.

Conclusion.

ASD-STE100 - International specification for preparation of technical documentation in a controlled language. The Aerospace and Defense Industries Association of Europe is the owner of the STE specification that was created for the aerospace industry, but its benefits are indeed applicable to all industries. The basic principle of STE is to keep texts as simple and readable as possible.

Advantages of simplified technical English:

- 1) Less ambiguity = extra safety.
- 2) A worldwide widespread will increase your trustworthiness.
- 3) Maintenance and repairs can be performed lots quicker than before.
- 4) Reduction in translation fees due to the fact of shorter texts, per chance 40%.
- 5) Effective take a look at on first-rate due to the fact of specific rules.
- 6) Shorter time to market due to the fact of an easier setup of your documentation.

The main purpose of my work is not only to highlight the importance of the little-known document ASD-STE100, but also to help in the development of the Academy of Civil Aviation in Almaty.

The scientific value of this report is based on the prospect of introducing STE into the English curriculum at the Academy of Civil Aviation. The objective result of using STE in the preparation of the curriculum and lecture complexes is to facilitate the training of future industry specialists, as well as basic preparation for working with documents that have been developed according to the rules of STE. Such training, in the future, will familiarize students with terminology and prepare them for future work, which will make them more competitive in the aviation industry.

Based on the materials presented in this paper, it can be concluded that further improvement of the quality of maintenance can certainly be achieved by expanding the use of simplified technical English as a bridge between the engineering and design community and maintenance personnel.

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ҚАЗАҚСТАНДАҒЫ АВИАЦИЯ САЛАСЫНДАҒЫ ЖЕҢІЛДІРІЛГЕН ТЕХНИКАЛЫҚ АҒЫЛШЫН ТІЛІНІҢ ӨЗЕКТІЛІГІ

Аңдатпа. Ағылшын тілі – ғылым мен технологияның халықаралық тілі. Ағылшын тілі техникалық құжаттама оқырмандарының бірінші тілі емес. Көпшілігінің ағылшын тілін білуі шектеулі. Сөйлем құрылымы және көптеген ағылшын сөздеріндегі мағыналар мен синонимдердің көптігі күрделі.

Техникалық қызмет көрсету және пайдалану құжаттамасын дұрыс түсіну авиацияда өте маңызды, ол адам өмірін қорғау үшін қауіпсіздік жұмысына да әсер етеді.

Бұл мақаланың мақсаты – Қазақстандағы Азаматтық авиация академиясының студенттері үшін ASD-STE100 құжатының маңыздылығын көрсету. Бұл құжатта біз авиация саласында оқыту кезінде осы құжатты қолданудың өзектілігін қарастырамыз, сонымен қатар техникалық ағылшын тілін білуге қойылатын талаптарға тоқталамыз және ағылшын тілін үйрену мен түсінуді жеңілдетуге бағытталған негізгі ережелерді қорытындылаймыз.

Түйінді сөздер. Ағылшын тілі, авиация, білім беру саласында қолдану, ережелер мен стандарттар, кәсіби ағылшын мәтіндерін түсінуді жеңілдету, STE қолдану жөніндегі Нұсқаулық, перспективалық оқыту, STE аспектілері.

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АКТУАЛЬНОСТЬ УПРОЩЕННОГО ТЕХНИЧЕСКОГО АНГЛИЙСКОГО ЯЗЫКА В КАЗАХСТАНЕ В СФЕРЕ АВИАЦИИ

Аннотация. Английский язык международный языком науки и техники. Английский язык не часто является родным языком для читателей технической документации. Большинство ограничены в знаниях английского языка. структура предложения и большое количество значений и синонимов, которыми обладают многие английские слова сложны.

Правильно понимать документацию по техническому обслуживанию и эксплуатации является очень важным в авиациях, так же влияет на работу безопасности для защиты человеческих жизней.

Целью рассмотрения данной статьи является освещение важности документа ASD-STE100 для студентов Академии Гражданской Авиации в Казахстане. В данном документе мы рассмотрим актуальность применения данного документа во время обучения в авиационной отрасли, а также затронем требования по владению техническим английским языком и обобщим основные правила, направленные на облегчение изучения и понимания английского языка.

Ключевые слова. Английский язык, авиация, применение в образовательной сфере, правила и стандарты, упрощение понимания профессиональных английских текстов, руководство по использованию STE, перспективное обучение, аспекты STE.
