INTERNATIONAL AVIATION ENGLISH ASSOCIATION

NEWSLETTER

Editor: Philip Shawcross

October 1993, N°3

EDITORIAL

There can be few things related to English and Aviation that are the subject of as much misinformation or as many misconceptions as Simplified English. «A language of 400 words», «a babyfied English», «Let's teach the beginners Simplified English...». So, it was extremely appropriate that the Association was offered this opportunity to hold its second seminar on this very subject.

Appropriate also because SE after a much-acclaimed birth in the mid-eighties has reached — much more discretely — a first stage of maturity in the early nineties. It is a time for stock-taking and reflection. The SE Working Group is currently preparing a new edition of the Guide planned for publication in 1994, which will incorporate modifications to SE itself and improvements to the Guide. In other words we are half way between the past, with already some experience accumulated, and a future which will be reshaped in the light of this initial experience.

Therefore Kalevi Vainioranta was particularly inspired when he invited us to meet in Helsinki this June to clear away some of the cobwebs of misapprehension, pool our experience of these last few years and try and see where we are going with SE. His fire, commitment and determination were invaluable.

This Association is indebted to the kindness and interest shown by Mrs Soili Johansson-Vaittinen, Principal of the FINNAIR Training Center in hosting its second seminar so graciously.

A seminar on SE without a member of the AECMA Working Group would have been incomplete, if not vacuous. By his unstinted contributions, mine of information and bonhomie Gordon Farrington of BRITISH AEROSPACE AIRBUS Ltd. was the keystone of our discussions. The Association would like to thank him personally for his

continued on page 2

IN THIS ISSUE

SIMPLIFIED ENGLISH (SE): The State of the Art 1
Teaching SE: An example 6
SE: For a better understanding of the writing rules 7
SE Job Cards 8
References 9
Incredible but true 9
Basic Principles of the Development of an operative Maritime Working Language 10
Sources 11
SE in another field 12
Terminology tangle 12
SE: Discrepancies between theory and practice 13
SE: Feedback 15
SE: Where are we going? 19

SIMPLIFIED ENGLISH: THE STATE OF THE ART

Gordon Farrington, *Editor British Aerospace Airbus Ltd. and member of the AECMA Simplified English Working Group.*

After serving in the RAF, ***Gordon Farrington*** *worked on technical publications for Fokker in Holland before being involved in the Airbus projects in Toulouse.*

He has worked as a senior author and is now technical editor and SE instructor for British Aerospace Airbus Ltd. training both in-house and outside companies. In 1992 Mr. Farrington became the UK member of the SE working group.

An Overview of the International Aerospace Language

What is Simplified English (SE)?

Although often referred to as "simple" English or "baby" English by its detractors, SE could more correctly be considered as a subset of conventional English designed for specific purposes. It is not however the first controlled language devised. Catapillar defined "Fundamental English" in 1971 and in the world of aviation McDonnell Douglas edited a Technical Dictionary in 1979 which gave a list of approved equivalent terms.

continued on page 2

EDITORIAL (contd.)

very active participation and BRITISH AEROSPACE for enabling him to be with us.

We were extremely lucky that AEROFLOT, AEROFORMATION, BALKAN BULGARIAN AIRWAYS, CSA, FINNAIR and KLM were represented. The presence of Dr. Peter Trenkner of Rostock University added another dimension and provided us with a new perspective on controlled languages.

The proceedings of the Helsinki seminar constitute the bulk of this issue of the Newsletter. As in Prague, we saw that there is still a long road ahead, obviously as regards practice, but perhaps even more importantly as regards ideas and their communication. This editorial opened by evoking some caricatural misconceptions. All those who attended the seminar left feeling very strongly that the fundamental aims behind SE were often not clearly appreciated, even at a middle-management level. This often stemmed from a lack of information or training and could be a contributory factor explaining some failures to apply the rules of SE or extend its application to other types of maintenance document.

While most procedures written today follow very closely the rules and vocabulary, the gap between theory and practice widens dramatically as soon as one considers descriptive or explanatory texts. The scarcity of good «models» may well be an obstacle to its application and its adoption in other areas such as Training Manuals, Technical Follow-ups and reports. So it needs its advocates to come to the fore; indeed, it is perhaps in need of a sales team!

But who cares? If it is realized that SE is not here by chance — the awkward brainchild of some Tech. Pubs department foisted on unwilling Maintenance Divisions around the world — but rather an integral part of an environment that includes:

- *computerized documentation systems,*
- *international cooperation between airlines,*
- *joint manufacturing ventures,*
- *generalized avionics technology and glass cockpits,*

then it could acquire the wider acceptance it is lacking today. ■

SIMPLIFIED ENGLISH : THE STATE OF THE ART (contd.)

In 1986 L'Association Européenne de Constructeurs de Matériel Aéronautique (AECMA) produced a first issue of an SE document which has now become mandatory for all civil aviation projects built to ATA 100 Revision 26 and later (refer to ATA manufacturer's Technical Data 1-1-3 § 1.A.2). Since then a similar approach has resulted in "français rationnalisé" or Rationalized French.

SE consists of:

- A Simplified Vocabulary and
- A Simplified Set of Writing Rules for using that vocabulary which define a "controlled" language.

Why do we need a controlled language?

A controlled form of English has become necessary because of:

- the increasing technical complexity of modern aircraft,
- the ever-greater volume of technical documentation (e.g. some 20 000 pages on average for a civil aircraft in 1950 has become 500 000 pages in 50 different manuals in 1990),
- the international character of all large aircraft projects since Concorde,
- the fact that between 70 and 80% of an aircraft manufacturer's customers are non-English speaking.

What do we require from the information in technical documentation?

This information must be:

- Accurate: all the given dimensions, values etc. must be correct,
- Complete: no important information should be missing,
- Relevant: only the subject of the manual should be covered in that manual,
- Concise: the language used should be sober and to the point,
- Convincing: the document should give the reader the feeling that the author knows his subject,
- Meaningful: each paragraph should only relate to the job in hand,
- Unambiguous: each statement should have only one meaning.

Why is conventional English not ideally suited to this task?

- There are too many words in English (95 000 words with 150 000 definitions in the Oxford Concise Dictionary alone).
- There are too many synonyms (some one and a half million in common use).
- There are too many meanings (13 million usages of a 3 million word vocabulary in one edition of Websters Dictionary).

To illustrate this with a rather extreme case, consider the various uses of the word "round" in this short text;

> "Round (verb) the edges of the round (adjective) cap. If it then turns round (adverb) and round (adverb) as it circles round (preposition) the casing, another round (noun) of tests is required".

continued on page 3

SIMPLIFIED ENGLISH : THE STATE OF THE ART *(contd.)*

- And finally the richness of syntax and grammar available in standard English is such that an infinite number of personal interpretations is possible.

What do we need?

To ensure the qualities we require from technical documentation, we need a language with fewer words, each with a specific meaning and part of speech, and a simplified structure, to enable these words to be used with the maximum benefit by the reader. So the smallest number of words used within a defined structure provides the basis for a controlled language, i.e. a simplified form of English.

However, it must not be forgotten that SE:

- will not compensate for a lack of writing skills or technical knowledge,
- demands a good mastery of conventional English,
- demands much greater concentration and awareness of the author,
- can not be used to teach someone English.

The Historical Background

In 1979 the Association of European Airlines (AEA) asked the European Airframe Manufacturers (AECMA) to study the readability criteria of aircraft maintenance documentation. This resulted in the AECMA Documentation Working Group setting up a project group, the SE Working Group, to research the problem.

From word-count lists derived from samples of maintenance documentation, the working group published its findings in 1982 with, for instance, a list of 1000 verbs commonly used in procedures. In the following year a draft list of approved verbs was drawn up and the Aerospace Industries Association of America joined the working group. Since that date, the American manufacturers have been particularly committed to the idea and implementation of SE.

IN 1986 AECMA published the first issue of their document PSC-85-16598, the SE Guide, rendered mandatory by the Airline Transport Association in Specification 100, revision 26 the following year. In other words, any aircraft manufacturer producing civil aircraft is bound to publish its maintenance documentation according to the specifications laid down by ATA 100, as regards presentation, layout, margins, reference systems, figures, etc. and, since 1987, to edit these documents in SE.

The AECMA document, now in its 5th issue, contains:

- a set of writing rules,
- a dictionary of approved words,
- a set of examples of usage.

What are the basic writing rules?

1. Words

There are only three sources of words that can be used in SE:

- **approved words** contained in the SE dictionary, with the meaning and part(s) of speech defined in the dictionary.
  Approved words are in upper case letters and unapproved words are in lower case letters.

e.g.

(APPROVED)	**AIRBORNE**	(adj.)	In, or used in, flight
	(WORD)	(SELECTED PART OF SPEECH)	(DEFINED MEANING)
(UNAPPROVED)	**airframe**	(n)	USE: **STRUCTURE**
	(WORD)	(SELECTED PART OF SPEECH)	(SUGGESTED ALTERNATIVE)

In future the part of speech of the suggested alternative will also be indicated, if different from the keyword.

- **technical names**. They are unrestricted and chosen by the design organization. They fall into 20 categories and include words such as: wing, fuel, seat, voltage, beacon, dermatitis, dent , installation, chapter, hand, degree, rain, amber, etc.

  They are however governed by four rules:

  1. They can only be used as nouns or adjectives (e.g. "pump" can be used as a noun, not as a verb).
  2. Only one technical name can be used for each thing.
  3. Only the official technical name can be used.
  4. The most easily, internationally understood name should be chosen.

- **manufacturing processes**. Two rules govern their use.

  1. Only the official manufacturing process term can be used.
  2. Manufacturing processes can only be used as a verb.

  There are six categories of manufacturing process:

  - one that removes material: e.g. drill
  - one that adds material: e.g. retread
  - one that attaches material: e.g. rivet
  - one that changes the physical properties of a material: e.g. anneal
  - one that changes the surface finish of a material: e.g. polish
  - one that changes the shape of a material: e.g. extrude

continued on page 4

SIMPLIFIED ENGLISH : THE STATE OF THE ART *(contd.)*

2. Use of Nouns

Wherever possible, nouns should be preceded by:

. a definite article
. an indefinite article
. a demonstrative adjective (this, that, those).

Synonyms should never be used. The repetition of the same noun makes the item easier to identify.

"Noun clusters" or compound nouns should be avoided and when used limited to three words maximum. Hyphenation should be used to break up noun clusters. So, for instance,

> "the forward strut rear angled needle roller bearing housing" becomes
>
> "the housing of the rear-angled needle-roller bearing on the forward strut.

3. Verbs

Only the verb forms given and approved in the SE guide can be used. For example:

The infinitive (TO...)	DRAIN	GO	BE
The simple future (WILL...)	DRAIN	GO	BE
The simple present	DRAINS	GOES	IS MUST
The simple past	DRAINED	WENT	WAS
The past participle	DRAINED	GONE	BEEN

The past participle must be used either as an adjective with a noun:

> "The adjusted link is ...."
>
> or after the verbs to. BE or to BECOME to indicate a state
>
> "...the wires are/become disconnected."

In particular, the -ING form of the verb either as a present participle ("...by using...") or as a gerund ("releasing the brakes requires...") is not approved. Nor can the present perfect ("...has failed...") be used. The passive voice is tolerated, but only if used sparingly!

4. Other Parts of Speech

Pronouns, Adjectives, Adverbs, Conjunctions, Articles and Prepositions are used as in Conventional English, provided that they are approved in the Guide (e.g. "So" is not approved, "Thus" is), that they are used in the approved part of speech ("free" is approved as an adjective, but not as a verb) and that they are used with their approved meaning ("as" can be used in the sense of "in the manner of" but not as a synonym for "because").

5. Sentence Construction

Four main types of sentence are used in SE, corresponding to the four types employed in technical documents.

- STATEMENTS: "The valve opens..."
- PROCEDURAL INSTRUCTIONS: "Remove the valve..."
- QUESTIONS, although they are very rare in technical writing
- A COMBINATION: "If the pin is broken, replace...".

Eight basic rules govern sentence construction. They are mostly pragmatic and stem from common sense.

1. Make instructions as specific as possible.
2. Do not use abstract ideas.
3. Keep to one task per sentence.
4. For procedural texts, maximum sentence length is 20 words.
5. For descriptive texts, one sentence in ten may be up to 25 words.
6. Do not omit verbs or nouns to make the sentence shorter.
7. When you count sentence length, a colon (:) or dash (-) counts as a full stop.
8. If you include a dependent clause, it must start the sentence and be separated from the instruction by a comma.

6. Paragraph Construction

Similarly, paragraph construction is guided by ten practical principles.

1. Always start a paragraph with a topic sentence, i.e. let the reader know the subject of the paragraph.
2. Each paragraph must deal with only one subject.
3. The maximum length of any paragraph is six sentences.
4. Vary the paragraph lengths and constructions to keep the text interesting.
5. Vary the paragraph lengths to add visual interest.
6. For descriptive texts, one-sentence paragraphs are limited to one in ten.
7. Do not overload the text and present new information slowly.
8. Use tabular layouts to show complex actions, relationships or results.
9. Try to end a paragraph with a text that links it to the next paragraph.
10. Always try to use the active voice.

continued on page 5

SIMPLIFIED ENGLISH : THE STATE OF THE ART *(contd.)*

7. Passive/Active Voice

SE advocates the active rather than the passive voice wherever possible. This generally makes texts less abstract and shorter. So for example:

"The side-stay supports the main-gear leg" is preferred to:

"The main-gear leg is supported by the side-stay".

In procedures, only the active voice is permitted whereas in descriptive texts, one sentence in ten may be in the passive voice. Writing descriptive texts, especially those of any theoretical complexity, without using the passive, may be well-nigh impossible.

As regards the relative difficulty of writing procedural and descriptive texts, it was observed that an experienced author after attending an SE course took one to three weeks to recover his previous speed with procedures, whereas he might take one to three months, or more, with descriptive texts.

8. Punctuation

With the advent of the word-processor, there is a tendency to use punctuation less, and less precisely, than before. Basic punctuation, however, plays an important part in SE.

The philosophy of SE is based on making the subject obvious to the reader. One of the most effective ways of doing this is by a systematic use of punctuation.

Punctuation used:

Full Stop/Period	.
Comma	,
Colon	:
Dash	—
Hyphen	-

String brackets, square brackets, parentheses {[( )]}.

The semi-colon is not used because of the difficulty experienced in using it correctly.

8.1 Use of Hyphens

Hyphens are used to show word association, for instance:

1. Two-word terms used together: "low-altitude".
2. Two-word fractions or numbers: "forty-seven".
3. Compound verbs consisting of a verb and a noun: "arc-weld".
4. Terms where two one-syllable words are written together: "run-on". The presence of a hyphen may in many cases distinguish between two parts of speech (e.g. a take-off, to take off).
5. Adjectives that consist of three or more words: "three-to-one ratio".
6. Terms that consist of a capital letter, or a number, and a noun: "P-clip".
7. Terms where a prefix ends in and a root word begins with a vowel: "anti-ice, re-entry, co-operation".

8.2 Use of Brackets

Brackets are used in these cases:

1. To make condensed figure or text references: "(Ref. Fig. 401)".
2. For numbers that are items on a parts list: "Install the bolt (4)".
3. For letters or numbers that are procedural steps: "(a) Do a BITE test".
4. Where separation by commas is insufficient, to add further information: "If HYD 1 (on panel 4B) is on,..."
5. For text that is not part of the main statement, for example when alternatives are indicated due to aircraft symmetry: "Remove the left(right) access panel".

9. Warnings and Cautions

WARNINGS concern the possibility of danger to people (i.e. injury, illness, death).

CAUTIONS concern the possibility of damage to equipment.

The rules for writing Warnings and Cautions are:

1. Start with a simple and clear command:
   "Do not..."
2. Add a brief explanation, if necessary, to clarify the possible risk.
   "This will prevent damage to the XXX..."
3. Do not write general statements of intent, etc.
   "You must obey all the relevant safety precautions."
   This conveys no practical, usable information.

Due to the safety-factor involved, the writing of warnings and cautions is a particularly sensitive area.

SUMMARY of the OVERVIEW

SE is a controlled language.

It has a restricted vocabulary of approximately one thousand words (excluding technical names and manufacturing processes).

There are approximately fifty-five rules which are easily applied.

Each word has a clearly defined meaning with a selected part of speech.

The philosophy is to make the text as easy and transparent for the reader as possible, and at all costs avoid ambiguity.

On April 13th 1987 The Times commented "With Simplified English... we may, at last, be on the threshold of making English logical and tidy." ■

TEACHING SIMPLIFIED ENGLISH: AN EXAMPLE

***Philip Shawcross**, Director of Gradation Ltd.*

***Philip Shawcross** has worked in technical translation and technical English teaching for aircraft manufacturers, the authorities, training centers and airlines. He is author of a technical reading course book: ENGLISH FOR AIRCRAFT.*

The SIMPLIFIED ENGLISH HANDBOOK was developed to act as a structure and source of materials for teaching non-native English-speaking technical authors to write SE within an Engineering department environment. The volume of material it contains (upwards of 300 pages, with additional pages being continually created) is simply intended to enable teachers to cope with different needs among their students as regards:

- linguistic ability,
- technical experience,
- the systems they work on (general, electronic or cabin),
- the aircraft manufacturers they deal with (Boeing or Airbus),
- the type of document they need to create (procedures, descriptions, reports).

Obviously in any one course, lasting from three to five days, only a limited number of pages is used. Several versions of each type of exercise exist in order to enable students to work outside the classroom.

The HANDBOOK consists of:

- Components and Utilization: a short introduction to the various parts of the HANDBOOK and how they can be used with and without a teacher.
- A concise summary of SE which attempts to bring out the main principles and most important writing rules as well as the historical background and spirit in which SE evolved.

Basically the body HANDBOOK is divided into three main parts:

Part ONE, **BASIC ACTIVITIES** in which trainees get to know the Writing Rules and Dictionary by a practical "hands on" method of using them as much as possible. The ten chapters contain individual and group exercises covering:

- Familiarization with the layout of the Guide,
- Referring to the Writing Rules,
- Page Layout, Margins, Spacing, etc. as per ATA 100,
- Approved and unapproved vocabulary and parts of speech,
- Breaking up noun clusters,
- Recognizing and using verbs in the correct forms and voices,
- Sentence syntax,
- Applying punctuation,
- Looking at the styles and rules which pertain to different types of document (procedures, warnings, cautions, notes, descriptions, reports).

A final tenth chapter gives the students an opportunity to revise certain points of language which may cause difficulty, such as word order, connecting words, key words, modal verbs, quantifiers, etc.

Therefore at the end of the first part of the course students should be quite familiar with the mechanics of SE. The exercises in this first part should be treated somewhat "as a game" and done at a fairly brisk pace.

Part TWO, **WRITING ACTIVITIES**, is devoted to a step-by-step use of some of the different aspects of the writing process. All the exercises are based on real examples taken from 747, 767, A 320 and A 340 Aircraft Maintenance Manuals, Component Maintenance Manuals and Service Bulletins, with some pre-SE texts taken from earlier versions of these or other aircraft. For each kind of activity there are different texts from general or mechanical systems (hydraulic power, air conditioning, etc.), electrical/electronic systems (autoflight, communications, navigation) and cabin systems (furnishing, water and waste) from both Airbus and Boeing.

The activities dealt with in Part TWO are:

- **Detection:** finding errors of vocabulary, layout, writing rules, etc.
- **Conversion:** changing non-SE into SE by shortening sentences, reformulating, finding synonyms, making the verb show the action.
- The third chapter deals with **Tabulation**, i.e. page layout and spacing with incorrect or unformatted texts.
- Students then **select** the correct verbs, verb forms, parts of speech, nouns, adjectives etc. from several at their disposal.
- **Summary** involves the first full writing activity, using existing texts.

continued on page 7

TEACHING SIMPLIFIED ENGLISH: AN EXAMPLE *(contd.)*

- In chapter six the students **complete** texts with correct verb forms, nouns, adjectives, link words, prepositions, adverbs, etc.
- In **Sentence Building** they have practice using SE structures from a number of prompts or elements.
- The penultimate chapter covers **Translation** exercises, if this is something the authors will have to do.
- Finally, in the last chapter, **Editing**, they have practice writing whole texts from non-textual stimuli, i.e. graphics, diagrams, tables, flow charts, notes, etc.

The last part of the HANDBOOK is a REFERENCE SECTION containing concise "memory-joggers" about the Writing Rules, common abbreviations, Examples of the 20 (soon 21) categories of Technical Names, Manufacturing Processes, a Quick Approved Verb List, and lists of approved States, Conditions and Characteristics classified by their context (e.g. position, movement, quality, shape, etc.).

Some of these lists and tables have been loaded onto the authors' computer systems so that they can be called up on the screen, thus avoiding reaching for the dictionary.

Over and above the specific points taught formally in the course, emphasis is placed throughout on cultivating the following things in the students:

. a personal appreciation for the general aims of SE,
. the awareness that they are writing for others, not for themselves,
. having a "feeling" for certain basic choices of SE vocabulary and structure,,
. a sense of pleasure at writing in such a way that the meaning of their texts stands out clearly to the user,
. seeing that one can do more with SE than they perhaps thought originally.

Observations made during the ensuing discussion:

It was pointed out that when doing "conversion" exercises with students, i.e. getting them to rewrite a text in SE, it was extremely important that the instructor detect any change of technical meaning resulting from a change of formulation. This implied, or course, that the instructor had considerable technical knowledge.

The use of model answers or of the students' know-how would be one way round this.

When you reach the stage at which students are producing documents, it is interesting for the teacher to be able to give them a critical feedback about both the content and form of what they are producing. ■

SIMPLIFIED ENGLISH: FOR A BETTER UNDERSTANDING OF THE WRITING RULES

Kalevi Vainioranta, *Training Department, Finnair.*

Kalevi Vainioranta *started his career in Finnair as an engineering foreman. He is now in charge of Language Training for the airline, and more especially for the Maintenance Division where he teaches Simplified English. He is also involved in software training for Finnair and third party airlines.*

SE in the Airline

The reality of Simplified English within many airlines is not quite the same as it is at Airbus Industrie or other manufacturers. The manufacturer works on producing an aircraft type and its support, including documentation, over a period of several years. He is able to build up and train a small team of editing specialists devoted to one type of aircraft at a time. On the other hand inside the airlines, the engineering departments have to deal simultaneously with several aircraft types, often several versions, and especially tackle the immediate day to day problems which cannot wait. Very often a large part of the staff may have been with the airline for a long time, have been trained on aircraft of another generation and never had a real need to use English in the jobs, having relied on translation.

Simplified English therefore does not arrive alone. The difficulty of adjusting to it is compounded by other difficulties: an increased use of English itself, a technological jump to a new generation of aircraft entailing different methods of work and the constant presence of daily AOG (Aircraft on Ground) situations. What springs virtually full-grown from the manufacturer's offices after years of patient elaboration can only be implemented gradually in the hurley-burley of aviation.

One instance of this is the heterogeneity of many of the groups that have to be trained to write in SE. Often the students' general English level is inadequate. Also, due to the current economic situation, and lack of staff availability, training time is too short. One has to try and manage even in a world which is not ideal. As a result the assimilation of SE is not as smooth as it might be.

Another considerable bonus provided by SE is of course the facility of using data retrieval systems with standardized texts.

continued on page 8

FOR A BETTER UNDERSTANDING OF THE WRITING RULES *(contd.)*

Finnair is convinced that the rules laid down in the Guide offer excellent general principles for authors working in English, even if in details of vocabulary etc. the rules are not always strictly abided by. The Engineering Department has also requested training to at least introduce SE to the mechanics who fill in logbooks and repair reports.

A longer course is planned for the authors of the Passenger Handling Guide. So SE is already leaving the world of maintenance documentation.

Reflections on SE

As regards vocabulary, SE uses words from three sources. There are perhaps some 500,000 Technical Names. Each one is precisely defined and catalogued. What the author needs to pay particular attention to are the general, technically-biased words in the dictionary, by giving them as full and clear a meaning as possible.

N.B. Gordon Farrington commented at this stage that in the next issue of the Guide all Technical Names and Manufacturing Processes would be removed from the Dictionary itself. On the other hand, fairly full, but obviously not exhaustive lists of examples would be included in the Writing Rules. This would help to make the Dictionary more "linguistic" in nature.

Unapproved general words which can also be used as Technical names will remain but be marked "T.N.".

Mechanics do not usually like reading! The aim to be kept in mind should be to make reading a pleasure, something the user hardly notices. A text should be as clear as a diagram for them.

The Process of Writing

As Bracewell put it, "Writing is essentially a thinking process and certain aspects of thought are inaccessible to the consciousness."

The reader needs to feel involved. Perhaps the Guide should give the budding SE author a better idea of why and when to use certain constructions, e.g. the active or passive voices, the imperative or "you", etc. A text needs to give clear, relevant information and also generate the right ideas in the reader's mind.

Cowan and Cowan adapted an Aristotelean concept from the "Rhetoric" called "Cubic Play". In other words, when an author writes he must use all six sides of the cube. He or she must:

1. describe: let the reader see colors, shapes, details, feel, smell, etc.,
2. compare: relate to other things or differentiate from them,
3. combine: join it to other things to create something new,
4. analyse: how it is made or what it consists of,
5. apply: how it is operated or used,
6. reflect.

Or, perhaps more simply, the author needs to keep in mind all the heuristic questions: Who? What? Where? When? How? Why?

During the course, the instructor needs to put the whole writing process into perspective for his students so that they do not have their noses too close to the paper! Their readers want to get something new out of their text. Before the author starts to write he or she needs to remember that the reader:

- does not want to be bored,
- wants new ideas and experiences from the text,
- has many other tasks other than reading and little time to spare,
- needs practical details and facts,
- likes discipline and hates chaos,
- wants to be led.

Process Writing

Kalevi Vainioranta concluded his talk with a short summary of the ideas on teaching and improving writing contained in Ron White and Valerie Arndt's book "Process Writing" published by Longman, which he had found very stimulating, especially when encouraging students to create thought "loops".

Comments

Finnair's overall strategy is to move to a situation in a few years time when they use only English. For the moment translation is still widely used. The financial benefits of working for third party carriers have been one of the most powerful incentives in the push to introduce English widely. A good service means good paperwork. Good paperwork means good English. SE has made this easier to attain.

SIMPLIFIED ENGLISH JOB CARDS

***Veikko Kalliomäki**, Supervisor Maintenance Planning, Finnair*

*Mr. **Kalliomäki** presented some examples of job cards written in Simplified English by Finnair and explained the significance of the codes used by the Maintenance Division.*

continued on page 9

FOR A BETTER UNDERSTANDING OF THE WRITING RULES *(contd.)*

It was pointed out how ATA provided a source of generally accepted, standard formulations such as titles.

Maintenance Practices lay down the main lines of the procedures to be written but the planner's experience may add a lot of more detailed, practical information.

Whenever no alteration of meaning is involved, a verb should be used rather than a verb and noun combination, e.g. "inspect" or "examine" reads better than "make or do a check".

Punctuation was seen to be a very useful means of avoiding confusion by separating words and ideas. For example in the sentence: "The FAIL light comes on on the overhead panel". Speech marks or inverted commas can be used to show the first "on" is a concept. Equally, brackets could be used to separate "(on the overhead panel)". Or alternatively the word order could be changed. Captions should also precede the name of the control or indicator they refer to e.g. "the STALL TEST switch".

Legislation

There may be conflict between the internationally accepted convention that American English is the universal language used in civil aviation documentation and individual national legislation or union agreements. The carrier however is responsible for providing clear English instructions.

JAR has stipulated that all licensed mechanics must be able to read technical documents in English. This should have an effect on the way engineering works in Europe. JAR 41 comes into force in January 1994: its provisions regarding quality also apply to documentation. ■

REFERENCES

The current edition of the AECMA SIMPLIFIED ENGLISH: A Guide for the Preparation of Aircraft Maintenance Documentation in the International Aerospace Maintenance Language PSC-85-16598 (Change 5 dated December 1989) is distributed by:

BDC Publishing Services
Slack Lane
Derby DE3 3FL - UK
Tel. 44.332.47123
Fax: 44.332.290820

Correspondence about Simplified English may be addressed to:

AECMA
175, rue J.J. Rousseau
92138 ISSY LES MOULINEAUX
France
Tel.: 33.1.47.36.98.76
Fax.: 33.1.47.36.83.04
For the attention of Ms. R. SIMMONS

A summary of SE, especially from the point of view of its potential for use in machine translation was presented in a paper by R. Lee Humphreys of the University of Essex in the Proceedings of EURALEX 1992 under the title:

«The Simplified English Lexicon».

A bibliography on technical writing generally may be found in:

Bruce M. Cooper: «Writing Technical Reports» published by Penguin Books.

Stimulating, up-to-date information about technical publications and communication is available in the journal «The Communicator» and the proceedings of the INSTITUTE OF SCIENTIFIC AND TECHNICAL COMMUNICATORS.

KINGS COURT
2/16, Goodge Street
LONDON WIP 1FF - UK
Tel. 44.71.436.4425
Fax. 44.71.580.6747
For the attention of J. P. Hobart

Their annual conference is being held from 1st/3rd October 1993 at Loughborough University. ■

INCREDIBLE BUT TRUE

The controller acted promptly when he received a call for assistance on landing from a long haul flight coming in to land at his airport. Apparently there had been a murder on board. Armed police were there at the ready as the plane arrived at its parking stand. The pilot had said "We have a mother on board".

These treacherous English "th" sounds!

(NB. Useful additions to the non-routine lexicon - woman in labour, a newborn baby.)

(drawing by Jim Walters) ■

BASIC PRINCIPLES OF THE DEVELOPMENT OF THE OPERATIVE MARITIME WORKING LANGUAGE

Peter Trenkner, *Professor of Maritime English, Rostock University, Germany*

Peter Trenkner*, for many years Professor of Maritime English, is currently researching the operative maritime working language. He is also President of the International German Association of Maritime English.*

Aviation and Seafaring have much in common. In both, passengers and cargo are carried from one point on the globe to another, moving in a medium which is not man's natural medium. This medium may be adverse or even hostile. Both aircraft and ships are controlled from the ground and the land so that they can navigate safely. In both cases English is recognized worldwide as the means of international communication. This language can be considered as a form of English for restricted usage. It should be clear and concise, avoiding ambiguity and redundancy. It should also avoid difficulties in pronunciation, long and complex structures and should be suitable for easy translation into other languages. It also has to comply with certain organizational constraints and procedures.

Mr. Trenkner went on to explain how a standardized language for oral communication in shipping had been developed.

Maritime English is considered to be "the entirety of all those means of the English language..., which being used as a device for communication within the maritime community, internationally contribute to the safety of shipping and organization of the seaborne business".

The situational context in which this language has developed, also has much in common with the aviation environment. Since the 1950s there has been:

- a vast increase in the total number of vessels,
- the creation of congested, heavy traffic areas,
- a rapid development of communication and navigation technology,
- the expansion of shore-based control in congested areas using radar and radio communication,
- the disappearance of radio officers,
- an increasing divergence between sophisticated means of communication and the linguistic competence of ships' officers,
- a rapid growth of multilingual crews, often with substandard qualifications.

These phenomena have been responsible for many accidents over the last few years resulting in loss of life, great expense and environmental pollution.

Communication may be of different types:

1. External, indirect radio communication:
   . Ship-to-shore (e.g. control, navigation, piloting),
   . Ship-to-ship (e.g. rescue operations).
2. Shipboard, face-to-face communication:
   . Among the officers,
   . Between the officers and shore-side personnel,
   . Among crew members,
   . Between crew/officers and passengers.

Many experts believe today that language difficulties represent the main factor of risk in seafaring today. Financial considerations encourage shipping companies to hire hastily trained crews, often under flags of convenience, and with an inadequate mastery of English.

The officer of the "Scandinavian Star", which caught fire in April 1990, when asked at the enquiry why he had not performed the regulation safety drills with the new crew, replied that it would have been useless. Even the boatswain, the highest ranking petty officer, did not understand his commands.

In order to define an operative maritime working language, it was necessary to determine, in order of increasing specificity:

- communication fields,
- communication subjects,
- communication topics,
- speech acts, the most problematic area, for instance, dialogues, instructions, advice, requests, information, warnings, intentions... and their verbal formulation in standard and non-standard terminology.

When one or both speakers recognize that there are communication problems and risk of misunderstanding, "message markers" can be used to identify the nature of each speech act, e.g.

"Colombo Station. Colombo Station. Question. Fresh Water." i.e. the crew wishes to know if there is fresh water available at the station. The message markers are spoken with and form part of the message.

It could be added that most shore stations only give "advice" to vessels as liability resulting from a faulty "instruction" is so great.

The study has determined various "communication fields", comprising a total of 38 "communication subjects". These fields are:

continued on page 11

MARITIME WORKING LANGUAGE *(contd.)*

External communication

GENERAL: giving position, course, bearing, etc. with the approved phraseology and correct way of expressing figures, etc.

DANGERS TO NAVIGATION VESSEL TRAFFIC SERVICE: in particularly congested areas.

SPECIAL: Fisheries, etc.

On-board communication

OPERATIVE SHIP HANDLING: How to steer the ship and change heading.

SHIP'S SAFETY: safety drills, etc.
CARGO AND CARGO HANDLING
CARE FOR PASSENGERS
MEDICAL COMMUNICATION

The "communication subjects" are more specific and concrete than the "communication fields" and comprise "communication topics" with the working stage headlines that determine phrases that make up the actual "communication exchanges". For instance, the Communication field VESSEL TRAFFIC SERVICE comprises a communication subject INFORMATION SERVICE which in turn includes a communication topic REPORTING which lays down what the ship's officer must actually say when he enters a controlled VTS area.

The project for development of an operative maritime working language is supervised by a project manager who is a qualified applied linguist within the field of maritime English. The project manager hires various specialists from the shipping industry, Captains, Engineers, lawyers, ship's doctors to provide him with detailed subject matter. In collaboration with these specialists, he then defines the speech acts required to realize the situations or processes. The results are distributed among ships' officers and coastal radio stations worldwide for comments and validation before producing a consolidated version.

Furthermore, the project manager is assisted by the Correspondence Group consisting of maritime professionals from Holland, the United Kingdom and the United States. The main working stages developed must then be presented to the International Maritime Organization twice or three times a year.

Finally, the project is published by the German Federal Ministry of Transport. The target date for completion is December 1995. ■

SOURCES

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO produces a large amount of very high quality professional documentation for use by the airlines in various fields. Its publications are usually available in French, English, Russian and Spanish.

Of particular interest are its outstanding series of manuals, updated each year, and covering areas as varied as:

Airport Handling Manual
Fire Fighting
Dangerous Goods
Revenue Accounting.

Not only do they set standards for the airline industry worldwide but they provide any researcher, instructor or translator with an incomparable source of texts, abbreviations, illustrations, regulations, glossaries, etc..

More restricted subjects are covered by several series of printed and recorded documents, often with a view to training. Titles include:

- Proceedings of the ICAO Seminar on Human Factors in Leningrad April 1990
- Civil Aviation Statistics
- ICAO Abbreviations and Codes
- The Overcrowded Sky (video)
- Windshear (video)
- All weather Operations (video)
- Aeronautical Medicine.

A catalogue of publications and audiovisual aids is available from:

ICAO
Documentation Dept.
1000, rue Sherbrooke Ouest
Bureau 400
MONTREAL Québec
CANADA H3A 2R2

or in the United Kingdom from the:

CIVIL AVIATION AUTHORITY
Printing and Publications Services
Greville House
37, Gratton Road
CHELTENHAM GL50 2BN ■

SIMPLIFIED ENGLISH IN ANOTHER FIELD

Here is part of a text on X-ray radiography to show how Simplified English can be used outside aviation.

GENERAL

X-ray radiography is used to find defects in both metallic and non-metallic components and assemblies. These defects can be cracks, corrosion, unwanted material, loose fittings or rivets, or damaged structural assemblies.

X-RAY PROPERTIES

X-rays with wavelengths of between 2 and 0.02 Angstroms can go through solid material. The strength of this property is changed by:

- the type of material,
- the energy of the X-rays.

As a result the X-rays will be stopped by, or go through, the material.

X-RAY PRODUCTION

The intensity of the X-rays is decreased as the thickness of the material is increased. This is because the material will soak up some of the X-rays and scatter others.

The material will soak up X-rays in proportion to:

- its thickness,
- its density,
- its atomic number,
- the voltage used in the X-ray tube.

The material will scatter X-rays in proportion to its density. This scatter will occur in, on and around the material. These scattered X-rays have decreased strength compared to the primary X-rays, but they make defect identification harder. Thus, an allowance must be made for this effect. Also, the film in use must have the protection of lead screens to prevent this effect.

X-rays are divided into groups in proportion to their strength. Those with short wavelengths are «soft rays». These groups are related to the X-ray tube voltage that is necessary to produce them.

continued on page 20

TERMINOLOGY TANGLE

Aprons with strings attached

Consider the following terms and their precise meanings:

APRON
RAMP
PARKING STANDS
PARKING BAYS
TARMAC
(CUL DE SAC)

Clearly PARKING STAND, PARKING BAY and PARKING GATE are synonyms. But at some airports PARKING GATES are where there is nose-in parking with telescopic gangways and direct access to the finger (or pier, or jetty or whatever local term is applicable). In this case, a PARKING STAND is somewhere out in the sticks, several minutes by shuttle bus away from the terminal.

The PARKING AREA and the APRON are more or less synonymous when speaking of the area near the terminal building.

The RAMP is the place where technicians and engineers may have access to the aircraft, in other words the PARKING AREA/ STANDS/ GATES/ BAYS.

The TARMAC is a much looser term which could mean all the hard surfaces, runways, etc. covered with tar macadam (pause for a brief salute to the inventor, Mr. Macadam); but in practice the word seems to be used for the APRON and, sometimes, taxiways.

CUL DE SAC is an intriguing name for the apron at Heathrow. This occasionally causes some bemusement:

TOWER
ATC Trainee - (to French aircraft taxiing in) (callsign) "Check before you enter the cul de sac".
Pilot - "Say again"
ATCO - "Check before you enter the cul de sac".
Pilot - "Check before I enter the what?"

TRAINING DEBRIEFING
Instructor - "Do you know why the French pilot didn't understand. He didn't understand cul de sac."
Trainee - "But it's a French word!"

Ah well, yes, but it's pronounced differently in French, and is now a rather old-fashioned expression replaced today by "voie sans issue" and certainly never used round airports.

However, this brings us to the issue of idiosyncratic terminology at different airports - a subject worthy of its own separate Tangle column.

(F.A. Robertson) ■

SIMPLIFIED ENGLISH: DISCREPANCIES BETWEEN THEORY AND PRACTICE

***Philip Shawcross**, Director of Gradation Ltd.*

With a view to raising questions which might further the consistency and application of Simplified English, two areas were briefly addressed. First of all, certain choices made within the Dictionary which did not seem to exemplify the principles contained in the Writing Rules. Secondly, numerous cases, especially in descriptive documents, from both Airbus Industrie and Boeing where the writing rules and dictionary were not complied with.

Criteria for the selection of words in the Dictionary

1. Two Parts of Speech

One of the most important principles expressed in the Writing Rules (1.1.2.1.) is the intention to avoid using a single word as different parts of speech. This intention is clearly and justifiably motivated by a concern to avoid ambiguity of interpretation among non-native English users. So, for example:

TEST, CHECK, MARK, PROGRAM may be used as nouns, but no longer as verbs; in this case they must be replaced by "DO/MAKE A TEST, CHECK, MARK and PROGRAM".

A perousal of the Dictionary, however, soon reveals that quite a few words are accepted both as nouns and verbs, e.g.,

BOND, CAUSE, CONTROL, COUNT, FIRE, FLOW, REPAIR, SET, START and TURN

or as verbs and adjectives, e.g. CORRECT, LOWER.

The question raised by the speaker was whether it was intrinsically more confusing to write:

"TEST the annunciator lights" (not approved)
"YOU MUST CHECK the tire pressure" (not approved)

than

"SET the rotary selector to A+B" (approved)
"There is a SET of tools in the stowage" (approved)
"You can CONTROL the start valve with a handle" (approved)
"The CONTROL of the system is automatic" (approved).

This raised the further question of whether the exclusion of TEST, CHECK, MARK, PROGRAM, SWITCH, etc. as verbs was excessively strict, and did not take common usage sufficiently into account, or whether the acceptance of BOND, CAUSE, CONTROL, COUNT, etc. as both verbs and nouns was too permissive!

2. Use of the Derivative Forms

As regards derivative forms too, there were a few things that were puzzling for the user of SE and which, due to their exceptional character, could create a doubt which made memorization more difficult.

In most cases, adjectives and verbs with different forms directly derived from the corresponding nouns were approved, e.g.

DIFFERENCE and DIFFERENT
DEFECT and DEFECTIVE
CALIBRATION and CALIBRATE.

However ACCURATE was approved but not ACCURACY, PRECISION was approved but not PRECISE, so creating a puzzling criss-cross. CALCULATE was approved but not CALCULATION.

There was a temptation to feel that some of these choices were somewhat random as the criteria for selection did not seem to be constant.

In reply to these remarks, it was pointed out that the choice of words in the Dictionary was based on two criteria: the number of occurrences in the maintenance documents taken as samples and common use of similar words in other European languages (e.g. as in the case of "precision"). It did appear, however, that as the word-count had been devised, it was unable to distinguish between different semantic and grammatical uses of the words (e.g., "correct", as a verb or as an adjective, "turn" as a verb or as a noun, etc.). The word-count did not feature any concordancing that would have identified the context of use.

Furthermore, in the next issue, some words such as "defect" and "fault" now in the Dictionary will be classified as Technical Names, due to their potential implications for product liability. Another modification will be the removal of comparative and superlative adjectival forms from the Dictionary (e.g. LOWER, LOWEST, etc.) to avoid possible confusion with the verb (TO LOWER, etc.). Their use however will still be authorized.

A few new words will be added (e.g., TO NOTE, TO MONITOR, etc.), but the Working Group is always loath to remove already-approved words as this would invalidate existing documents. Many definitions will be improved by attempting to write the definitions only in SE, without relying on outside vocabulary in quote marks.

A user can add words to the Dictionary if he defines them clearly and respects the Writing Rules. Airbus Industrie did just this with six verbs (e.g. DE-ENERGIZE, DE-ICE, etc.).

continued on page 14

SIMPLIFIED ENGLISH DISCREPANCIES BETWEEN THEORY AND PRACTICE *(contd.)*

Another apparent anomaly was the fact that the word "above" was preferred to "over" in the Dictionary, whereas words containing the prefix "over-" were allowed (e.g. OVERHAUL, OVERLAP, OVERBOARD). The practice of making a purely itemized interpretation of the word-count would seem to explain this.

Discrepancy between the SE Guide and maintenance documentation being produced today

It was observed that generally speaking there was a very high level of compliance with the SE Guide in most procedural maintenance texts produced by the major manufacturers and suppliers over the last four years. Furthermore, SE had achieved considerably more maturity of style and consistency than in the first documents produced in 1986/87.

The situation in descriptive texts, however was very different. Sample pages dating from 1989, 1991 and 1992 were examined from the AMM of both the A340 and B747-400: A340 34.48.00 p. 30, 27.24.00 p.4, 30.73.00 p.19; B747 31.41.00 p.4, 26.11.00 p.1, 35.21.00 p.7. A Collins/Rockwell Service Bulletin on a DME and a page from the A340 Training Manual, where SE is not mandatory, were also studied by way of comparison.

In the six random sample pages taken from Airbus Industrie and Boeing AMMs, the following discrepancies were observed:

SENTENCE LENGTH:

12 sentences exceeding 25 words, most in excess of 30.

VERB CONSTRUCTION:

Passive mode with "can" "will" and present perfect tense:

"-will not be lost", "can also be displayed", "can be accessed", "have shown", "have been due to", "there has been", "can also be accomplished", "can also be controlled".

ING form as a Gerund or Present Participle:

"-without recalibrating", "by using", "the following", "without compromising" "thus requiring", "before desensitizing", "by sliding", "thus making", "further to jamming", "this permits daming", "from entering", "actuating", "closing", "entering", "opening".

UNAUTHORIZED WORDS

"furnish", "compute", "various", "certain", "enhancements", "in an attempt", "to accommodate", "persist", "limited", "the majority", "due to", "under", "over", "which slopes down", "significantly", "instances", "requiring", "reasonable", "verify", "desirable", "reconfigures", "provides", "mated", "appropriate", "snap over", "is able", "both", "subsequent", "exceeded", "no longer", "due to", "lack", "accomplished", "initiated", "mounted", "manifolded", "ruptures", "allow", "serves", "unlatch", "aside".

NOUN CLUSTERS EXCEEDING 3 WORDS:

. "automatic fire overheat logic test system card"
. "stainless steel, half-inch support tube assembly"
. "lower forward, upper and lower aft section"
. "ground test control valve stop"
. "external oxygen servicing fill line"
. "forward cargo compartment ceiling"
. "low pressure distribution lines".

COMMENTS:

It should be made quite clear that this rapid survey of a few pages had not a wide enough base to be considered as scientific, nor was it intended to be a witch-hunt. Also several of the texts would be judged as "very good English" by most criteria of quality in general English. Furthermore the existence of "anomalies" does not necessarily just reflect on the way in which SE is being used; it may will also reflect on the Rules and Dictionary themselves.

Nevertheless, without any claim to conclusiveness, the following remarks were voiced:

1. It was very much more difficult to write descriptive and explanatory texts satisfactorily in SE than to write procedures.
2. In many cases adequate alternatives existed in SE for many of the words or constructions used (e.g. "The units can also be controlled" could become "You can also control the units", "certain" could become "some", etc.).
3. Insufficient attention had perhaps been given in SE to generally accepted technical verbs, especially in the area of avionics and computerization where it is difficult to do without "compute", accessed", "displayed", etc.
4. SE did imply a conscious effort to turn one's back on abstract, theoretical notions and to reformulate the subject matter in more operator-oriented language. The continuing presence of words such as "accommodate", "provide", "accomplished", "serves", "initiated, etc. was perhaps indicative of a failure to implement this. Authors had to transform design office language, exemplified by words such as "enhancements", "in an attempt", "significantly", "reasonable", "desirable", "appropriate", into a more pragmatic, operational language.
5. It would perhaps be necessary to allow greater freedom and provide more tools for descriptive writing.
6. There was a risk that if the Description and Operation sections of the manual were too abstruse, that they would end up not being used at all.
7. A plea was made for a more extensive use of training authors not only in the Rules and Dictionary themselves, but in the concept of SE and the aims behind its formulation. ■

SIMPLIFIED ENGLISH : FEEDBACK

Towards the end of the seminar a discussion took place about how the users feel about the way in which Simplified English is being put into practice within the airlines. There follows a brief account of some of the points raised around the table and of the response to these suggestions, queries and comments.

Request for Change

Representatives from the airlines were unanimous in saying that reactions to SE in its present form by Engineering, Documentation and Training Departments were never officially voiced.

Although AECMA provided users with the possibility of sending in comments and requests for additions and changes in the form of a printed page in each Dictionary, extremely few people availed themselves of this possibility. As a result the creative potential of an active feedback of information from users was largely lacking. This was extremely detrimental to the development of SE.

The working group had requested AECMA to formally ask the airlines for their opinions about SE. The front pages of each guide contained the names and addresses of all the national representatives, and the head office of AECMA itself in Paris, who could forward feedback to the working group.

It was felt that there were two weak links in the information chain: between the airlines and AECMA, but also within the airlines themselves where the observations of many individuals were not being collected and collated. Therefore a vast reservoir of professional experience and incentive was going to waste. Even a very light structure would be sufficient to harvest this knowledge.

Where SE is not being used correctly

It was asked whether there was a lesson to be learnt from the many cases where SE was not being systematically applied, especially in complex descriptive or theoretical passages.

It was mentioned that Airbus Industrie (which had added 6 extra words) and especially Fokker had added new words for use in the description and operation passages where they felt the need. This was always possible if the principles behind the writing rules were respected and the words were used coherently with well-defined meanings.

Airline Job Cards

It was pointed out that even after SE training many airline authors did not bother to apply the writing rules. They were recommended to do so but there was no in-house follow-up and pressure put on them. In addition the airlines were under no obligation to comply with ATA 100 for documents which were simply for internal use.

Initially SE required more effort on the author's part but enabled considerable time-saving on the shop floor. It had to be understood as a personal, and not just an economic, investment. It was also vital to have supervisors give their backing to the scheme.

SGML

Standard Generalised Markup Language, if used in conjunction with the creation of texts in SE, enabled documents to be transmitted worldwide and reformatted.

KLM and Finnair

KLM decided to stop using Dutch and work only in English in 1982. It was not always easy. Finnair was following the same road but taking it step by step. SE was perceived as a very useful means of easing this innovation, although paradoxically, it was usually those with the best grasp of English who were most committed to SE. Reaction to SE was often similar to people's initial reaction to computerization.

Safety

Safety and the risk of misunderstanding resulting in an accident was often invoked when it was suggested to make the move to English. There was then a tendency to wait.

It was pointed out that it was always important to realize what the cost of <u>not</u> moving would be.

Technical Training

Aeroformation described the considerable trouble they had encountered with their trainees, not due to their lack of technical competence, but because their grasp of Eng-

continued on page 16

SIMPLIFIED ENGLISH: FEEDBACK *(contd.)*

lish was inadequate. SE has been seen as one way of closing the communication gap by simplifying the English used in training documents.

ATA 104 specified that training materials should be written in SE... and also that trainees should be «proficient» in English. In both areas, they were still wide of the mark!

A certain resistance to a fuller use of SE in training documents was due to the fact that very often descriptive documents were not written in good enough SE. The argument was that it was not suitable for teaching people. As the courses lasted for up to six weeks, it was felt that students could not put up with hearing and reading such «poor» English.

One participant felt that SE needed to be «marketed»; it needed to have advocates able to show readable, attractive examples of SE prose to convince people that it was possible to write both clearly and attractively in SE.

For the moment, in the training world, people did not believe in it; «Simple» English was acceptable, but not «Simplified English». There was a hostile reaction to the idea of a single guide and a single list of authorized words. Instructors wished to be free to add or change at their own discretion.

The major argument behind SE was the plea for consistency and compatibility. The London Underground, for instance, had recently developed a form of «Simple» English for editing its training manuals etc., given the multi-ethnic origins of its staff. Yet in most cases these «Simple» languages lacked both an internal logic of selection and compatibility with other forms of «Simple» English.

Restricted to Maintenance Documentation?

The working group's initial brief was to devise a form of English for use in writing aircraft maintenance documentation. When the word counts were made, initially only maintenance documents were used as samples. However all the members of the working group agreed that it did not intrinsically have to be restricted to maintenance documents. As a standard, SE was usable by any engineering base. The principles remained valid. If the choice of vocabulary in the dictionary was not suitable, it could be altered to meet new needs.

It was asked whether it would be feasible to define a language core and different sub-sets applicable to various fields (aircraft maintenance, operations, shipbuilding, medical equipment, etc.).

This could be done but the question was whether it would be worth the effort. There would be a risk of creating a core larger than any one user actually wanted in an attempt to cater for the needs of all users. It seemed to be preferable to use the existing aeronautically-biased core as a model which could be adapted to other disciplines.

Use of SE for flight documentation

Writing descriptive texts for operating manuals was still seen by the departments as a difficult task. As the documents were produced by different departments, there had been no move in the direction of SE.

Standardized English/Everyday English

One attendee remarked on the enormous difference between the standardized English used in Maintenance and other manuals and the often very complicated, difficult English in engineering documents like TFUs, SILs, AEBs, ADs, telexes, etc. He wondered whether there was any move to encourage staff on the customer desk and in engineering departments to adopt the principles of SE.

Although this question was not answered directly, it was admitted that SE was probably perceived by the manufacturers as having a relatively low priority.

Spread of SE

Airbus Industrie, for instance, supervised the application of SE to its manuals. In certain cases, both the writing rules and the dictionary had to be adhered to (Procedures). In others, only the rules had to be followed (Descriptions). The A320 Trouble Shooting Manual and Component Maintenance Manuals had not been in SE, whereas on the A340 they were. So, there was a gradual spread of SE to new documents.

SE checkers

One or two American companies were developing SE checkers. One called «Co-Author» produced by ORACLE checked whether a text complied with the rules of SE. At that point in time it did not check active and passive and could only tentatively identify unapproved words, having no awareness of parts of speech. There was no word count. A later version would allow you to build up a user dictionary of in-house terms. It could be a time-saver in the future.

continued on page 19

THE INTERNATIONAL AVIATION ENGLISH ASSOCIATION: A BRIEF DESCRIPTION

HOW WAS IT BORN?

The initial impetus to form the Association stems from the very positive international response to the Aviation English Forum held periodically in Paris over the past eight years. It became apparent that a great many people working in this field worldwide needed a structure within which they could establish and pursue contacts and keep abreast of events in the fast-evolving worlds of Aviation and English.

WHAT ARE ITS AIMS?

1. To **bring together** people and organizations concerned by or interested in the use of English in the aviation and aeronautical world.
2. To **promote** the exchange of information as regards English, English training, standards, qualifications, translation, documents, etc., between people working within Aviation in different countries.
3. To **gather** information useful to the airlines, Authorities, Air Traffic Services, manufacturers, pilots, engineers, universities, research institutes, training centers and teachers.
4. To **enhance** the circulation of this information through a Newsletter and one-day seminars and periodic forums.
5. Finally, to **generate** concern about the quality of English in the aviation world.

WHO ARE THE MEMBERS?

Airline training managers	Translators	English Language Teachers
Pilots	Representatives of Civil Aviation Authorities	Technical editors
Engineers	Researchers	Air Traffic Controllers
Professional bodies (IFATCA, IFALPA, IATA)	Military training departments	Manufacturers' Documentation Departments

WHAT ARE SOME OF THE ISSUES ADDRESSED?

- Language requirements for aviation professions
- Ambiguity and interpretation in phraseology
- Standardization and clarification
- The role of English with respect to other languages, etc.
- Autonomy in language learning
- The promotion of Simplified English
- Language standards and testing
- The human factor in communication and learning
- Efforts required by native speakers to use English as a language of international communication

For the conditions of membership, please see the APPLICATION FORM over.

INTERNATIONAL AVIATION ENGLISH ASSOCIATION

MEMBERSHIP APPLICATION FORM

I wish to apply for individual membership of the INTERNATIONAL AVIATION ENGLISH ASSOCIATION and enclose the annual membership fee of **150 French Francs.** This membership is strictly personal and is not transferable to an institution, airline or association.

As an individual member I am entitled to:

- receive 1 copy of each issue of the Association's Newsletter (three or four issues planned for 1993),
- contribute to the Association's Newsletter,
- attend all Conferences, Seminars and Workshops organized by the Association.

FIRST NAME: _____ FAMILY NAME: _____

COMPANY / ORGANIZATION, etc.: _____

JOB / TITLE: _____

PROFESSIONAL ACTIVITY: _____

ADDRESS TO WHICH CORRESPONDENCE SHOULD BE SENT: _____

_____

_____ TEL N° (Office): _____

_____ FAX N°: _____

_____ TEL N° (Home): _____

SIGNATURE: _____ DATE: _____

Payment **by Eurocheque, cheque on a French bank account or International Money Order only** should be sent to:

INTERNATIONAL AVIATION ENGLISH ASSOCIATION
72, boulevard Vincent Auriol
75013 PARIS

Tel: (33) 1 45 82 16 96
Fax: (33) 1 42 53 25 49

SIMPLIFIED ENGLISH: FEEDBACK *(contd.)*

Linguists in the SE working group

One attendee wondered whether any linguists had been involved in drawing up the writing rules and selecting the approved words.

Most of the members of the working group were and had been translators. A few were technicians and technical authors. No trained linguists had belonged to the group.

Two questions which came to mind were: what criteria were used for the initial word count and vocabulary selection and secondly which languages and cultures were taken as models when assessing the comprehensibility of SE. What was simple for a Spaniard was not necessarily so for a Japanese.

Not using documentation

Partly due to the fact that the English in technical documentation used to be difficult and partly due to their knowledge of the aircraft, many mechanics no longer used documentation. Today, on new aircraft with new technologies and SE, an effort needed to be made to bring maintenance staff back to a more systematic use of documentation. The documentation might be blamed when in fact the problem was unfamiliarity with a new technology. SE could play an important role in wooing the mechanic back to the book!

Quality

In the end, the most effective way of ensuring the successful implementation and adoption of SE was to ensure that there were enough examples of SE of a high quality. SE should be «clear» English. The language had to be as transparent as possible. Any technical names used must comply with the spirit of the rules. But it was better to expand the language and use it rather than not use it a all.

Copyright?

AECMA had a copyright on the SE Guide but not on SE language. ■

SIMPLIFIED ENGLISH: WHERE ARE WE GOING?

Gordon Farrington, *British Aerospace Airbus Ltd.*

The SE Guide was first issued in 1986. Each member of the working group was responsible for certain parts and these parts were incorporated as they became available. The guide was added to through its various changes. This work-sharing spread the load but resulted in a document in two formats and type styles.

Initially, the document was conceived as a «self-help.» Each partner (Aérospatiale, Deutsche Airbus, British Aerospace, Fokker, Aeritalia, etc.) worked on their particular area of responsibility, without any central funding.

Change 4 was issued in December 1986 and was the first complete issue with all the parts present. Subsequently Boeing wishing SE to be adopted by the military undertook to reformat and retype the document which appeared as Change 5 in December 1989.

There is however no technical difference between the contents of Changes 4 and 5, although unfortunately a large number of typographical errors slipped into the document at this stage.

The working group has been steadily correcting and improving the Guide and is currently revising letter «S». Letters «U» to «Z» should be completed by the meeting held in Filton (Bristol) in September 1993. It has also been decided to delete Part Two of the Guide, i.e. the straight dictionary of approved words and alternatives, in favour of the present Part Three: «Examples of Use». As a result, the US group is now revising the Introduction to the Guide.

Actual progress made is affected by factors such as the number of members who can attend each meeting, individual company finances and the workload on other projects. The group's aim, however is to have Change 6 ready for printing some time in 1994.

The working group is also addressing two other subjects, «Phrasal Entries» and «Different Constructions» which should be included in the Guide.

«Phrases Entries» deals with cases where it is difficult to replace a single unapproved word with a single SE-approved word and where a complete phrase is really required.

«Different Constructions» covers situations where to change a piece of unapproved text into satisfactory SE requires a completely different construction.

continued on page 20

SIMPLIFIED ENGLISH: WHERE ARE WE GOING? *(contd.)*

Requests have been made to add verbs which have a particular, often more theoretical, usage within Description and Operation text because it is more difficult to write such texts within the limits of current SE vocabulary. An attempt will also be made to improve the Writing Rules. New, more explanatory rules will be added to give authors a better notion of the aims of Simplified English and the means of attaining them.

The working group has also been approached by the Commission of the European Community involved in seeking a base language for translation. The group may be asked to act as consultants to working group 7 of the EC in conjunction with a university team. The objective would be to work from one simplified language in order to diminish the scale of translation problems within the community. ■

SEMINARS & FORUM

Forum

The Fifth Aviation English Forum will be held in Paris at the Campanile Hotel, Porte d'Italie on 17th and 18th March 1994 on the theme of:

People, Flying Machines and English: an examination of the ways in which human factors affect communication and training in English in the world of aviation today.

Registration

Registration forms are available from the Association.

Future topics

We will always welcome your proposals as regards venue and topic for future seminars. Both Prague and Helsinki proved beyond doubt that both outside attendees and the hosting organization have everything to gain from such events.

Among the topics we would like to see raised are:

- cabin announcements in English,
- computer-assisted translation,
- the integration of Language departments in the decision-making process with respect to training and human resources,
- a follow-up on Simplified English,
- learning/teaching specific skills, e.g. reading, listening, writing, etc.

However, the subjects which are most important are those which you feel should be tackled. So please do let us have your suggestions. ■

SIMPLIFIED ENGLISH IN ANOTHER FIELD *(contd.)*

TEST METHODS

The property of the X-ray to go through a material is used for the internal inspection of structure and components. The material will soak up some of the X-rays, some will scatter and others will go through. The different intensities are used to find defects. A visual record is made on a photographic film.

A film record can be made of the full aircraft structure, with a movable X-ray generator, without the need to remove components. It is possible that in some installations, an object will prevent a good exposure and must be removed.

The X-ray generator is put at the given source-to-film (SFD) distance. The SFD is the distance between the target and the film. The angle of the X-rays to the object must be as specified in the procedure. ■

For all correspondence about the Newsletter, please write to:
International Aviation English Association
72, boulevard Vincent Auriol
75013 PARIS - France

For the attention of the Editor

Printed with the assistance of the Centre of Applied Linguistics, Université de Franche Comté, Besançon, France