

AECMA Simplified English

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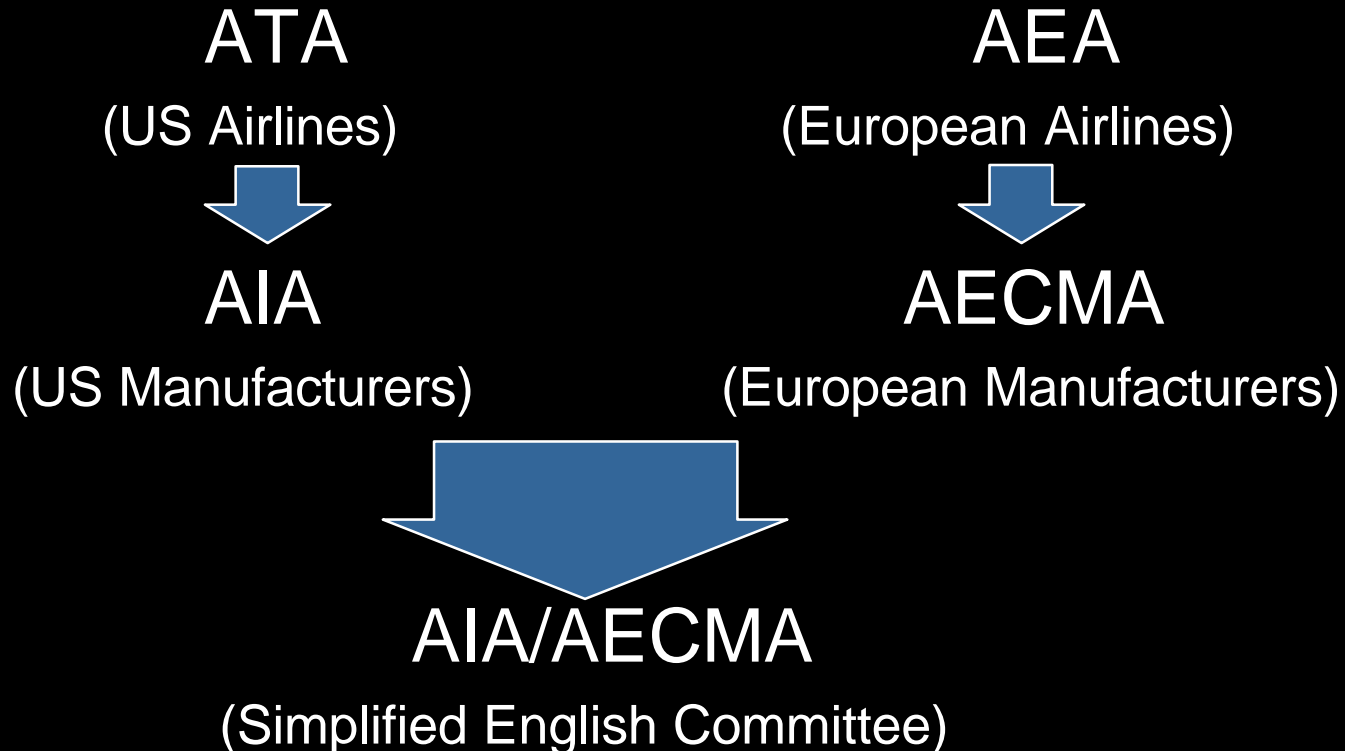
→ What is AECMA?

→ AECMA is the acronym for:

Association Européenne des Constructeurs de Matériel Aérospatial

(European Association of Aerospace Industries)

SIMPLIFIED ENGLISH PROJECT



✈ History of AECMA SE

- ✈ 1979 The Association of European Airlines (AEA) asks AECMA to investigate the readability of its aircraft manuals.
- ✈ 1979 AECMA, through its Document Working Group (DWG), sets up a project group to research the problem and provide a solution.
- ✈ 1980 Fokker offers to develop writing rules for SE.
- ✈ 1981 ATA discusses Simplified English (SE) with AEA/AECMA.
- ✈ 1982 After analysis of existing texts, a draft list of verbs is identified.
- ✈ 1982 ATA asks AIA/AECMA to develop a comprehensive guide for SE for the Aerospace industry.
- ✈ 1983 AIA joins forces with AECMA.
- ✈ 1986 Basic AECMA SE document is issued.
- ✈ 1987 ATA, in its Specification 100, makes AECMA Simplified English a mandatory requirement for support documentation of commercial aircraft.

➔ HISTORY OF THE AECMA SE GUIDE

➔ The AECMA Simplified English Guide was first released in 1986. Below, for reference, is a list of all the Changes released to date.

- ➔ 1986 - Feb 15: First release Included Writing Rules (Part 1) and the Dictionary (Part 2).
- 1986 - Sep 15: Change 1
- ➔ 1987 - Jun 01: Change 2 Addition of examples of function words and nouns (Part 3).
- ➔ 1988 - Jun 15: Change 3 Addition of examples of verbs (Part 3).
- 1988 - Dec 30: Change 4 Addition of examples of adjectives and adverbs (Part 3).
- ➔ 1989 - Dec 01: Change 5 Reformatted version of Change 4.
- ➔ 1995 - Sep 15: Issue 1 Guide completely revised and a new issue released. Original Part 2 deleted and Part 3 renumbered to Part 2.
- ➔ 1998 - Jan 15: Issue 1, Rev 1 Updates and amendments.
- ➔ 2001 - Jan 15: Issue 1, Rev 2 Updates and amendments.

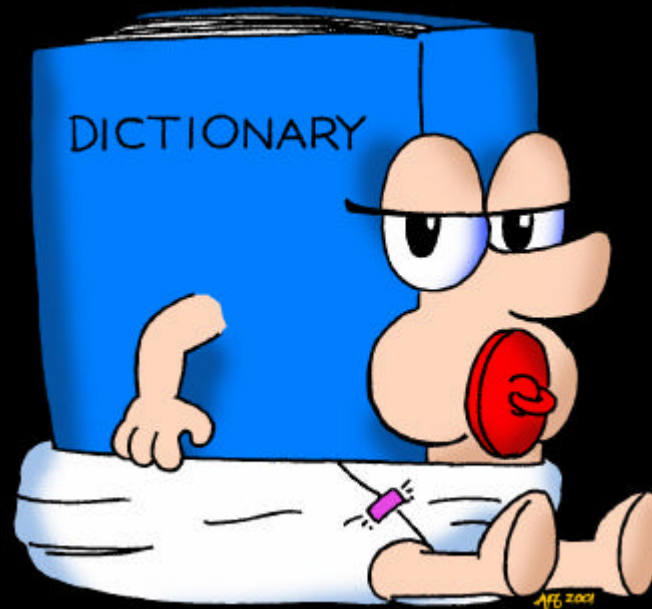
What is AECMA Simplified English?

- AECMA SE is a concise, precise, and limited use of the English language.
- It is used internationally by the aerospace industry to produce technical manuals and other documentation needed for aircraft support and maintenance.
- It has a **defined set of grammar and syntax rules**, and a **restricted vocabulary** that you must use when you write in AECMA SE.

- ACEMA SE has:
 - A restricted base vocabulary (about 1,000 words)
 - A large set of Technical Names and Technical Verbs (unlimited in number and user-defined)
 - Restrictions on grammar and style (about 60 rules)
- AECMA Simplified English is a **Controlled Language** (a subset of conventional English).

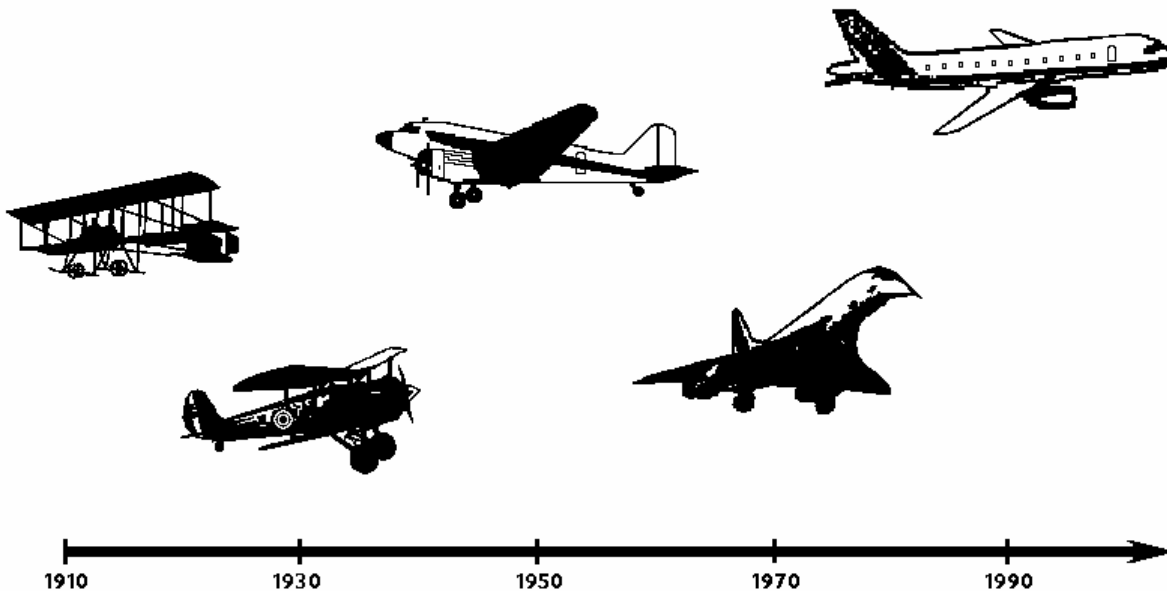
What AECMA Simplified English is NOT:

- It is **NOT** “simple” English, “baby” English or “silly” English.

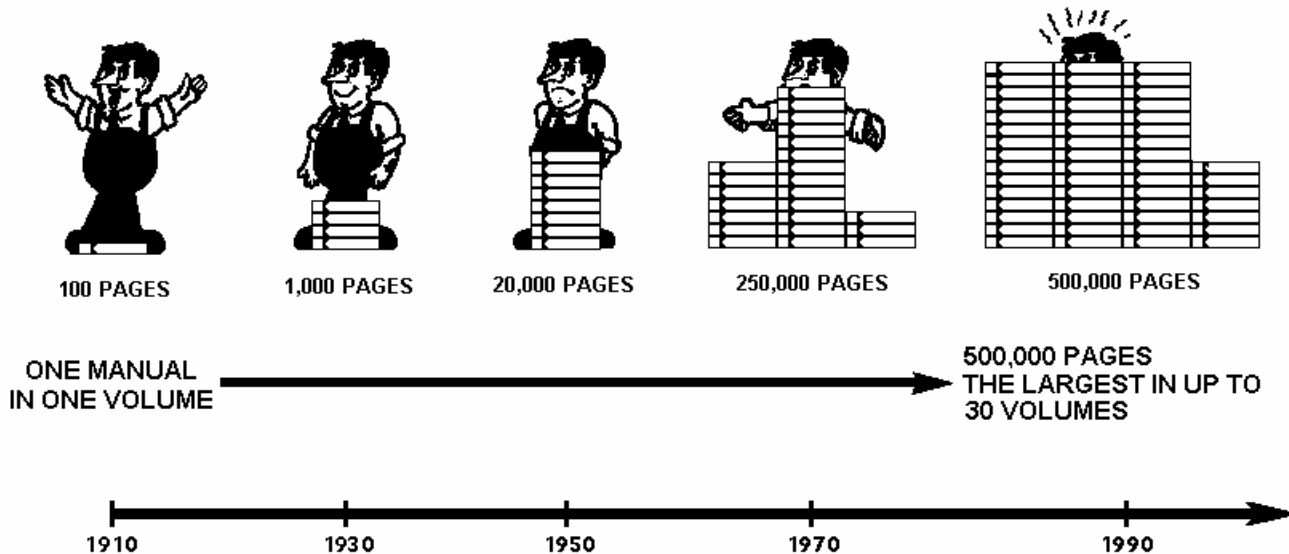


→ Why do we need AECMA SE?

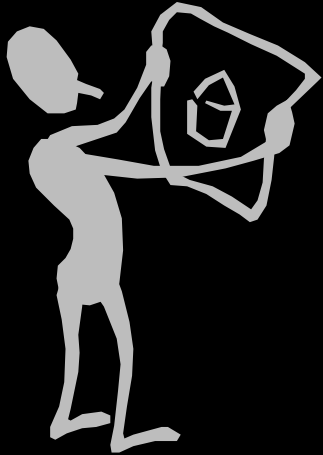
The Increasing Complexity of Aircraft



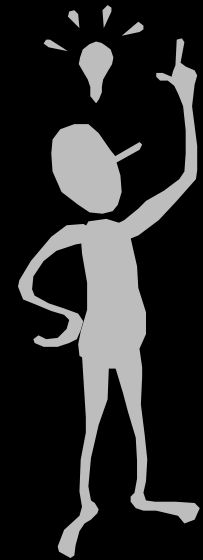
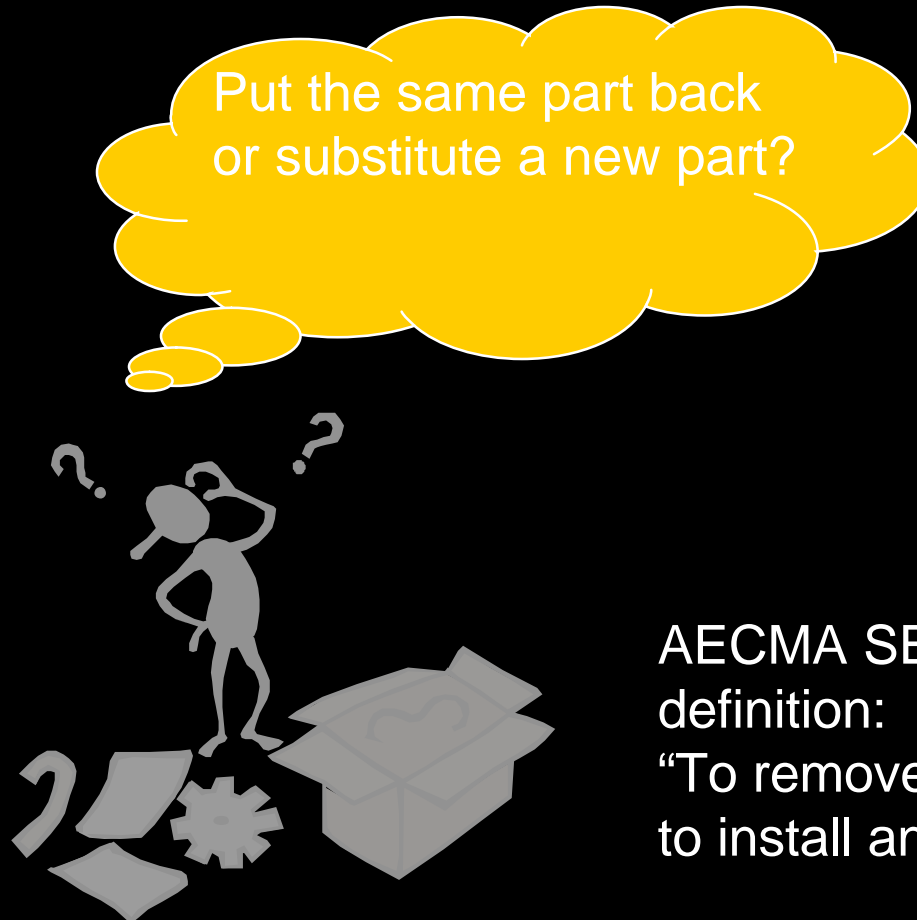
The Increasing Size and Complexity of Technical Documentation



→ Why do we need Simplified English?

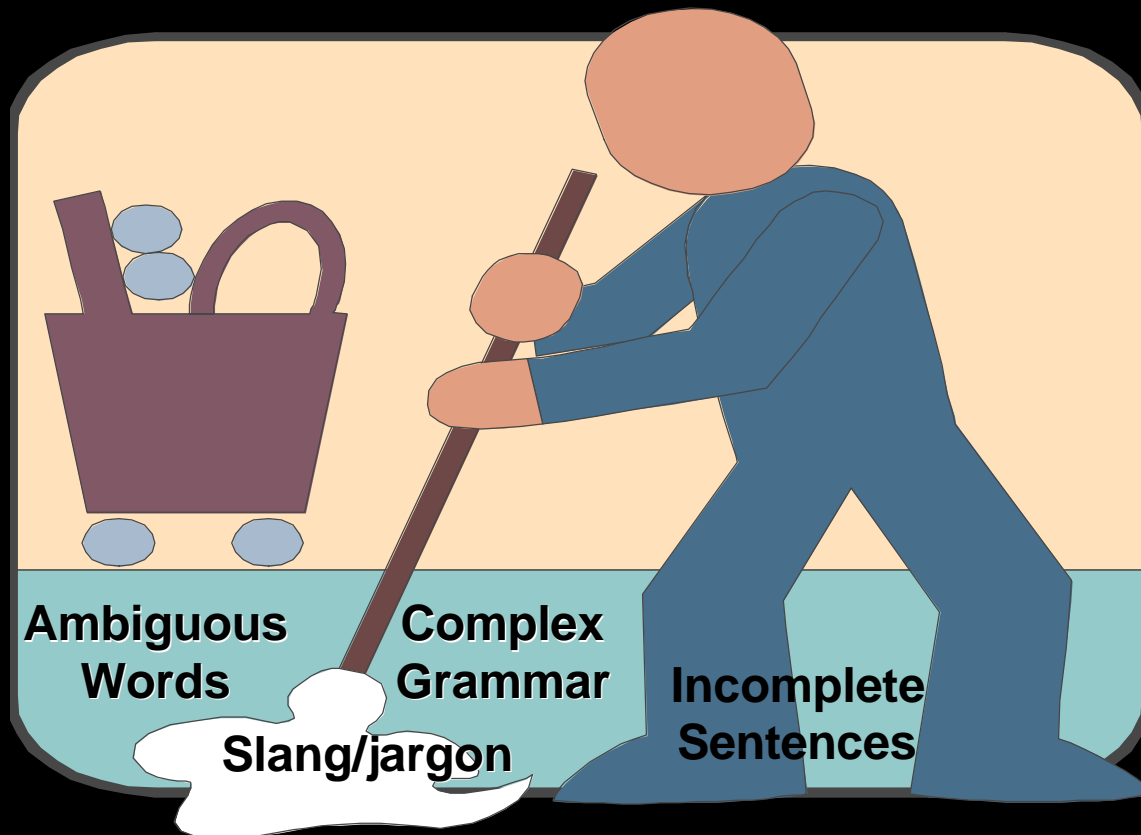


“Replace the part...”



AECMA SE Dictionary
definition:
“To remove an item and
to install an equivalent.”

SE gets rid of “unclear” writing



- ➔ AECMA Simplified English (SE) was originally developed to help the users of English-language documentation quickly and accurately understand what they read.
- ➔ The original aim was to make it easier for non-native English speakers working with English documentation.
- ➔ However, studies have shown that the benefits (speed of task completion, reduced error rates, etc.) are also statistically significant for native English speakers.

➔ What Are the Benefits of Using AECMA Simplified English?

- Increased safety and efficiency
- Reduced legal liability
- Fewer customer complaints/questions

→ Benefits of AECMA SE

- Encourages good writing practices and eliminates vague and ambiguous statements by forcing the writer to use:
 - shorter text
 - clearer writing habits
 - more precise narratives
- Limits the variety of words
 - (ex: FOLLOW means "to come after in a sequence" and not "to do what the rules tell you" i.e. OBEY)
- Gives a standard for grammatical construction (reduces personal styles)
- Eliminates "verbiage" (needless accumulation of words)

→ Benefits of AECMA SE - Translation

- Manuals written in AECMA SE are easier to translate.
- The defined syntax and vocabulary of SE facilitates computers-assisted translation as well as human translation.

→ How does SE work?

- Limits the variety of words
- Uses common, everyday English words
- Establishes one meaning per word
- Emphasizes good writing practices
- Standardizes grammatical constructions

Example (non-AECMA SE)

- ➔ It is equally important that there should be no seasonal changes in the procedures, as, although aircraft fuel system icing due to water contamination is more often met with in winter, it can be equally dangerous during the summer months.

Example (in AECMA SE)

- Use the same procedures all the time because water in the fuel system can freeze during summer or winter.

AECMA SE

Rules for Cautions and Warnings

- ✈ Rule 7.1 Start a warning or a caution with a simple and clear command.
 - ✦ Warnings and cautions must start with a simple and clear command.
 - ✦ This command tells the technicians what they must do to avoid the danger and/or damage.
 - ✦ Do not hide this command as a general comment with other background information.
 - ✦ Start with the command, and then give the supporting information.

- ✈ *Instead of*
CAUTION: EXTREME CLEANLINESS OF OXYGEN TUBES IS IMPERATIVE.

- ✈ *Write*
WARNING: *MAKE SURE THAT THE OXYGEN TUBES ARE FULLY CLEAN. OXYGEN AND OIL OR GREASE MAKE AN EXPLOSIVE MIXTURE. AN EXPLOSION CAN CAUSE DEATH OR INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.*

- Rule 7.2 Be specific in a warning or caution.
 - ✦ You must tell the users exactly what they must do or not do (and what can happen if they do not obey), to get their attention immediately.
 - ✦ Do not write the warning or caution as a general comment.

→ Be specific:

→ *Instead of*

WARNING: FAILURE TO DEACTIVATE THE THRUST REVERSER ISOLATION VALVE FOR GROUND MAINTENANCE COULD RESULT IN INADVERTENT THRUST REVERSER OPERATION WITH POSSIBLE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

→ *Write*

WARNING: MAKE SURE THAT THE THRUST-REVERSER ISOLATION VALVE IS CLOSED. IF THIS VALVE IS OPEN, THE THRUST REVERSER CAN OPERATE ACCIDENTALLY. THIS CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

- ➔ Rule 7.3 If necessary, add a brief explanation to a warning or a caution to give a clear idea of the possible risk.
 - ✦ A warning or caution will be more effective if a brief explanation is added.
 - ✦ An explanation gives the technician a reason for the warning or caution.
 - ✦ It also gives a clear idea of the possible risk if the technician does not obey the instructions.

→ Be specific:

→ *Instead of*

CAUTION: THE GRABBER MUST BE ENGAGED BEFORE THE THRUST REVERSER HALVES ARE OPENED.

→ *Write*

CAUTION: *BEFORE YOU OPEN THE THRUST REVERSER HALVES, MAKE SURE THAT YOU ENGAGE THE GRABBER. IF THE GRABBER IS NOT ENGAGED, DAMAGE TO THE PYLON STRUCTURE CAN OCCUR.*

→ © AECMA Simplified English, Document PSC-85-16598 - Issue 1, Revision 2, 15 Jan 2001

→ Rule 7.4 Identify your command correctly as a warning or caution.

- ✦ The brief explanation and risk statements that you add to a command will help you to identify it clearly as a warning or as a caution.
- ✦ A **WARNING** means that injury or death is possible if the instructions are not obeyed.
- ✦ A **CAUTION** means that damage to equipment is possible.
- ✦ Possibility of injury and/or damage = **WARNING**

→ Rule 7.5 If a condition is necessary before the technician continues, put the condition first in the warning or caution.

→ *Instead of*

CAUTION: THE EMERGENCY POWER AND LIGHT SWITCHES SHOULD BE IN THE "OFF" POSITION PRIOR TO OPENING THE CIRCUIT BREAKERS.

→ *Write*

CAUTION: BEFORE YOU OPEN THE CIRCUIT BREAKERS, MAKE SURE THAT THE EMERGENCY POWER AND LIGHT SWITCHES ARE IN THE "OFF" POSITION. THIS WILL HELP TO PREVENT DAMAGE TO THE EQUIPMENT.

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AECMA Simplified English

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www.aecma.org/Publications/SEnglish/senglish.htm

Poppy Quintal has been a Technical Editor with Bombardier Aerospace since 1995. She edits maintenance documents to meet the standards of the Association Européenne des Constructeurs de Matériel Aérospatiale (AECMA) Simplified English. She also trains technical writers at Bombardier and other aerospace companies in Simplified English (SE). Poppy represents the Canadian aerospace industry in the AECMA Simplified English Maintenance Group, which updates and maintains the SE Guide.