

PROFICIENCY REQUIREMENTS IN COMMON ENGLISH STUDY GROUP

SECOND MEETING

Luxembourg, 15 to 18 May 2001

SUMMARY

A constrained definition of "common English" is proposed as being the proper focus for ICAO standards for pilots and controllers.

TITLE

Development of Standard

(Presented by Dr. Jeremy Mell)

1. INTRODUCTION

- 1.1 Recent analyses of aviation incidents and accidents throughout the world have increasingly drawn attention to the contributing role of imperfect pilot-controller communications. Within this overall category (which also includes defective microphone techniques, non-use of standard phraseology, etc) the inability of some controllers and pilots to communicate in English with clarity and ease in non-routine situations (ie beyond the limits of standard phraseology) has been widely noted. The obvious conclusion to be drawn from this observation is that deficiencies in common language skills need to be overcome in addition to any improvements in the design of phraseology and its applications. To this end our Study Group will formulate Standards of linguistic performance that the members consider to be appropriate to ensure safety. Since these Standards will inevitably have an impact on the training initiatives that are subsequently undertaken by States, it is important that their focus should ensure the appropriateness of such training.

2. LANGUAGE TRAINING OPTIONS

- 2.1 The language-teaching community offers two broad solutions to language-learning requirements -general and special-purpose courses.

- 2.1.1 General language teaching focuses on the overall language system, practises the full range of skills (reading, writing, listening, speaking) and tends to contextualise these in the area of everyday social interaction.
 - 2.1.2 Language teaching for special purposes (LSP) on the other hand focuses principally on those features of the language that are required to undertake a particular (usually professional) task and contextualises these by simulating the precise tasks to be undertaken.
 - 2.1.3 While general English language courses are a feature of most education systems and are widely available for adults at a reasonable cost throughout the world, LSP courses tend to be more localised, created on demand, and number far fewer practitioners.
- 2.2 It would be tempting therefore, with a particular view to economy and to ease of applicability, to opt for a strategy that ensured optimum attainment in general English, with reference perhaps to a chosen established norm, while ensuring that a well-designed, well-maintained and strictly applied phraseology takes care of that which is specific to the task of the pilot and controller (aviation terminology, radiotelephony procedures, etc.)
- 2.3 The question then is whether the safety-related objectives, which are our primary concern, can be achieved through this approach. The answer will need to take into account observations drawn from collective experience.

3. DATA CONCERNING THE IMPACT COMMON ENGLISH

- 3.1 A closer look at many instances where insufficient command of common English has been cited as contributing to an incident or an accident reveals a rather more complex state of affairs. For the purposes of this note one example will have to suffice:
 - 3.1.1 A much-quoted case is that of the message uttered by the first-officer aboard one of the 2 aircraft involved in the catastrophic collision on the ground at Tenerife (1977). His use of the phrase "We are now at take-off" was interpreted by the tower controller to mean that he was waiting at the take-off point. Subsequent events demonstrated that he in fact meant that the aircraft was already on the take-off roll.
 - 3.1.2 Analysts of this accident customarily attribute the ambiguity of the phrase to the phenomenon of linguistic interference from the speaker's mother-tongue - in this case Dutch. Dutch syntax allows the use of a preposition (equivalent to English AT) associated with the infinitive form of a verb to express the notion of an action being performed at the moment of speaking. This is not the case in English. The data in this case certainly supports the notion that a better mastery of basic English syntax by the Dutch first officer at that moment in time may have helped to alert the controller to the impending collision.
 - 3.1.3 However a closer look at the problem raises certain doubts about how clear-cut this solution actually is. The English language does in fact allow phrases on the model AT + NOUN to express the notion that the speaker is currently participating in an activity (consider for example "at play", "at work", "at lunch"). To extend this language pattern to the action "take-off" is therefore not entirely unreasonable. What was missing in the KLM first officer's knowledge/use of English was the awareness that such phrases may sit astride a semantic

"faultline" (CURRENT ACTION vs. CURRENT POSITION) which is of critical importance to the specific domain of aircraft movements on the ground.

3.1.4 The problem here is that, without this domain-specific knowledge, a teacher of general English may see no urgent reason to focus attention on the ambiguity of phrases like "at take-off". This is all the more true since teachers of the general language tend to focus their corrections on the major areas of grammatical usage (overall sentence structures, verb-tense contrasts etc)

3.2 In addition to specific cases such as the above, anecdotal feedback from some controllers involved in communications-related incidents have alerted us to the more general problem of the impact of general language training from an intermediate level upwards. It would seem that by focusing on some of the finer points of the grammar or lexicon during training, non-native users of English can become inappropriately concerned with manipulating certain features of the language and are thus hampered in their ability to use the language clearly and rapidly in operational situations.

3.3 It would therefore appear that standards that are set solely in terms of attainment of a recognised level of common English will fail to meet the requirements for safe communications in that they may be EITHER insufficient with regard to the specific constraints pertaining to the context of aircraft operations OR in excess of operational linguistic needs and, as such, potentially disruptive to safe communications.

4. AN ALTERNATIVE: COMBINING GENERAL AND SPECIFIC PROFICIENCY REQUIREMENTS

4.1 The experiences examined above suggest that some sort of bridge must be built between the common language in its entirety and the highly restricted sub-language of phraseology to which future ICAO standards can refer to.

4.2 The "bridge" in question can be conceived by associating a general English proficiency requirement at an agreed minimum level with a certain number of specific proficiency requirements.

4.2.1 The general requirement must ensure a minimum threshold of competence in common spoken English as the indispensable foundation for safe and efficient pilot-controller communications, especially in non-routine situations. It would relate (at least) to the following performance features;

- a) comprehension of spontaneous spoken English
- b) well-formedness (phonetic, syntactic, lexical) of spoken utterances
- c) underlying confidence to participate actively in dialogue

4.2.2 The specific requirements must relate (at least) to the following features:

- a) specific aviation terminology
- b) the predominance of certain non-aviation lexical domains (medical, geographical,...)
- c) the predominance of certain language functions (requesting, instructing, ...)
- d) problems induced by code-switching (phraseology-natural language)
- e) problems induced by channel-constraints (voice only, sound quality,...)

- f) the increased importance of checking mechanisms (hearback,...)
- g) an international community of users of English (accents,...)
- h) requirements to be prompt, clear, concise and unambiguous

5. IMPACTS ENVISAGED

- 5.1 In addition to the safety-related benefits outlined above, the introduction of a job-specific focus to general language requirements will incur a number of other benefits which are related to « washback » effects on training.
- 5.1.1 The application of a narrower focus in the language-training of personnel who have achieved the minimum threshold of competence in common English (see 4.2.1 above) ensures maximum cost-benefit in the allocation of training resources.
- 5.1.2 The greater professional relevance of course content stimulates higher levels of learner motivation – a major contributory factor to successful language-learning. This will be particularly true for the continuing training of qualified controllers and pilots.
- 5.1.3 A two-tier approach to standard-setting (ie. A general requirement « base » with a specific requirement « topping ») allows greater flexibility in setting compliance deadlines.
- 5.2 While the principal focus of the PRICE group's attentions has turned towards raising the proficiency levels of non-native speakers of English, it should not be forgotten that many communications problems have been linked to the inappropriate linguistic behaviours of native speakers. Through a carefully designed set of specific proficiency requirements it would become incumbent also on native speakers to use registers of the English language that are available to an international community of speakers. Thus « We've got all the fancy stuff » (an attested occurrence on a busy civil sector) would become an unacceptable alternative for « We are transponder equipped ».
- 5.3 The methodological know-how (in the form of qualified training personnel and published teaching materials) for meeting the special requirements may not yet be as easily available worldwide as for the general requirements. It should however be acknowledged that much of the language training for pilots and controllers currently being provided in many parts of the world adopts this two-tier approach – for example in Europe and Africa, in the context of objectives established by national administrations, Eurocontrol (PELA) and ASECNA (CELICA). Contacts with training institutions in other important states (USA, Japan, China) are proving that their training programmes are moving in the same direction. It would be unfortunate for the PRICESG recommendations not to support this dynamic.

6 ACTION PROPOSED

- 6.2 The group is invited to:

- a) note the information and arguments provided in this paper
- b) comment on the implications arising for the formulation of standards and issues of applicability
- c) accept the principle that proficiency requirements should (i) not be expressed solely in terms of common English, and (ii) include a list of specific requirements relating to the particular context of use.