International Civil Aviation Organization

Fourteenth Meeting of the APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/14)

Bangkok, Thailand, 28 June – 2 July 2004

Agenda Item 3:   Any Other Business

LANGUAGE PROFICIENCY

(Presented by the Secretariat)

SUMMARY

While strict adherence to ICAO phraseology is crucial, pilots and controllers must also be able to express themselves in plain language when circumstances call for. This paper provides information on a new ICAO requirement for controllers and pilots involved in international operations to demonstrate a minimum level of English language proficiency.

1.   INTRODUCTION

1.1   Between 1976 and 2000, more than 1,100 passenger and crew lost their lives in accidents in which investigators determined that language had played a contributory role. Moreover, numerous incidents involving language issues, including a number of runway incursions, are reported annually.

1.2   Concern over the role of language in airline accidents turned into action in 1998 when the ICAO Assembly assigned high priority to efforts to strengthen provision concerning language requirements. Amendments to ICAO Annex 1 – *Personnel Licensing*, Annex 6 – *Operation of Aircraft,* Annex 10 – *Aeronautical Telecommunications* and Annex 11 – *Air Traffic Services* adopted in March 2003 contain language proficiency requirements that clarify and extend existing provisions. Over the years, ICAO SARPs have consistently made clear a requirement for adequate air traffic controller and pilot communications.

1.3   Prior to the adoption of the latest amendments, Annex 1 Standard already requires that air traffic controllers "speak and understand the language used for radiotelephony communications" (paragraph 1.2.9.2). Additionally Standard contained in Annex 10 provides that "in all situations for which standard radiotelephony phraseology is specified it shall be used" (paragraph 5.1.1.1). Recommendation in Annex 10 recommends that "Pending the development and adoption of a more suitable form of speech for universal use in aeronautical radiotelephony communications, the English language should be used as such" when needed for international communication (paragraph 5.2.1.2.2).

2.   DISCUSSION

Testing and Rating Scale

2.1   Even with these SARPs mandating the use of the phraseologies and suggesting the use of English for international communications, concern grew over English language proficiency as a result of some high profile accidents and incidents.

2.2   The ability to communicate when there is no phraseology to cover the situation is critical to safety. In practice this means that pilots and air traffic controllers must be able to achieve mutual understanding through the use of plain or general language to get their messages heard and understood. It is precisely this issue of plain or general language use that has been problematic in the aviation context.

2.3   In view of the above discussion, Amendment 164 of Annex 1 introduced a strengthened language proficiency requirement as follows.

> "1.2.9.4 As of 5 March 2008, aeroplane and helicopter pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radio communications to the level specified in the language proficiency requirements in the Appendix."

2.4   It is any "language used for radio communications" in international operations that the language proficiency requirements apply. Therefore, pilots on international flights shall demonstrate language proficiency in either English or the language used by the station on the ground. Controllers working international services shall demonstrate language proficiency in English as well as in any other language(s) used by the station on the ground.

2.5   Also, the Council adopted the Appendix set forth as follows:

> "To meet the language proficiency requirements contained in Chapter 1, Section 1.2.9, an applicant for a license or a license holder shall demonstrate, in a manner acceptable the licensing authority, compliance with the holistic descriptions at Section 2 and with the ICAO Operational Level (Level 4) of the ICAO Language Proficiency Rating Scale in the Attachment."

2.6   Accordingly, the Council approved the Attachment to Annex 1. To meet the language proficiency requirements, this newly development ICAO language proficiency rating scale will be used to assess an individual ability. The extract from the Attachment relating to the Level 4 is reproduced in the attached **Appendix**.

2.7   ICAO language requirements focus on the assessment of communicative proficiency – that is, an individual's speaking and listing skills only. The only way to assess communicative speaking and listening proficiency is by assessing actual speaking performance, and this always requires use of some sort of scale to guide good judgment, and professionally qualified language teachers are accustomed to the use of such tools.

2.8   It is accepted that the best practice is to permit a number of test/assessment options. For non-native language assessment, formal evaluation can currently include any of the following:

    a.   an official test score on commercially available language tests;

    b.   a test score on an internally developed language test;

c. an assessment provided by an outside language testing expert (available through many universities or commercial testing agencies); or

d. an assessment provided by an in-house language-testing expert.

2.9 The format of the formal assessment will be determined by the States, but the language test should be tailor-made for aviation rather than the ones commonly used to evaluate general English competency. Commercially available English knowledge test such as TOEFL is not appropriate for the purpose of testing English competency for pilots and air traffic controllers. Currently there are no effective aviation-specific language tests for pilots and only one from EUROCONTROL for controllers. Efforts to develop appropriate and commercially available aviation-specific testing instruments have already begun and it is expected that more aviation-specific test options will be available in the future. In the meantime, the upcoming ICAO manual on language competency will provide specific suggestions on how States can assess the suitability and reliability of testing solutions that would be proposed by the industry.

2.10 In light of the aviation-specific requirement, that is the test is not intended to evaluate the general English skill, the ICAO language proficiency requirements apply to native or non-native speakers alike. However, in this case, it is possible to use a process similar to that which is routinely used today to ensure that applicants do not have a speech impediment that would affect their capacity to operate safely. In practice, language proficiency assessment for native and/or "Expert" speakers can consist of a brief interview with a representative from the Licensing Authority.

Recurrent Testing and Training

2.11 Another important aspect of the language proficiency provisions is that an emphasis is placed on the need for recurrent training and testing. Recurrent testing of pilot and controller language skills is important for two reasons. Firstly, we know that language skills taper off if people do not have the opportunity to use and practice them. Retesting is particularly important for individuals with intermediate levels of proficiency who live in places which offer them little opportunity to use their second language. Secondly, retesting is important because of the necessarily inexact nature of language proficiency assessment. As with all grading systems, there is a possibility that on occasion an individual who actually demonstrates Level 3 ability will be assessed as meeting the Level 4 standard and vise versa.

2.12 In view of the above discussion, Amendment 136 to Annex 1 also adopted the following Recommendation.

1.2.9.7 **Recommendations. —** *The language proficiency of aeroplane* and *helicopter pilots, flight navigators required to use the radio telephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's demonstrate proficiency level, as follows:*

a) *those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least one every three years; and*

b) *those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.*

ICAO Aviation Language Symposium and Seminars

2.13 A three-day symposium on the new ICAO language proficiency requirements will take place at ICAO headquarters, Montreal, from 1 to 3 September 2004. This symposium is part of a

worldwide educational and awareness campaign to introduce the ICAO language proficiency requirements and to provide practical information to facilitate implementation of the SARPs on the ICAO language proficiency requirements contained in recent amendments to Annexes 1, 6, 10 and 11 that take effect in 2008. The symposium is intended for managers from government, airlines and air traffic service providers that will be in charge of implementing the new requirements as well as training entities which may be interested in providing aviation language training and testing service. Participants from States will receive practical advice on how to comply with the ICAO standards and recommended practices concerned with language proficiency.

2.14   Language Proficiency Seminars will be organized in the various ICAO regions after the Symposium. These Seminars will provide those who are not able to attend the Symposium with an opportunity to become familiar with the new ICAO Standards and supporting implementation strategies. Regional seminars will include workshops to allow participants to gain hands-on experience in assessing language training and testing programmes.

2.15   The First Regional Seminar for the Asia Pacific Region will be held in Tokyo, Japan from 8 to 10 December 2004 and is hosted by the Japanese Civil Aviation Bureau. Details on this seminar will be provided in due course by ICAO Asia Pacific Regional Office.

Manual on the Implementation of the ICAO Language Proficiency Requirements

2.16   A manual addressing the various training and evaluation issues related to the implementation of ICAO language proficiency standards is in preparation. The *Manual on the Implementation of the ICAO Language Proficiency Requirements* – Doc 9835-AN/453 should be published in September 2004.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to note:

> a)   the importance of using phraseologies;
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> b)   information on the latest amendment to Annexes 1, 6, 10 and 11 on the language requirements;
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> c)   information on the ICAO Language Symposium and Regional Proficiency Seminar; and
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> d)   information on the ICAO *Manual on the Implementation of the ICAO Language Proficiency Requirements* (Doc 9835) under preparation.

Appendix

ICAO RATING SCALE FOR OPERATIONAL LEVEL 4

Pronunciation: (Assumes a dialect and/or accent intelligible to the aeronautical community)

Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.

Structure: (Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task)

Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.

Vocabulary:

Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.

Fluency:

Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.

Comprehension:

Comprehension is mostly accurate on common, concrete, and work related-topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.

Interactions:

Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

For information on the complete ICAO language proficiency rating scale, please refer to the Attachment to Annex 1.

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