





4

ENGLISH IN CIVIL AVIATION: PROBLEMS AND SOLUTIONS TO MEET FUTURE WORKFORCE DEMANDS AND MEETING EXPECTATIONS

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INTRODUCTION



Aviation in Malaysia began before the First World War. Proper organisation of civil aviation commenced in 1948 with the creation of the Department of Civil Aviation. Since English was the official language at the time, it was used in aviation as well. Eventually, as a contracting state of the International Aviation Organisation (ICAO), the then Malaya, elected to continue the use of English for both military and civil aviation domestically and internationally.

BACKGROUND

In the beginning, communications related to aviation were carried out using a multitude of languages. If a message had to be sent to a distant airfield, the language used would have been that of the country of origin, or that of the destination. Since airplanes were slow, and international journeys often took more than 24 hours, there was sufficient time for the authorities concerned to have the message translated. With the advent of faster airplanes and the regularity of such flights, there was insufficient time. Moreover, with the increase in air traffic, sovereign states began to regulate the



use of their airspace. So, for an international flight, a message which used to be sent to the destination now had to be conveyed to all countries the airplane would fly over. For a flight, say from London to Moscow, the message would have to be sent in French, Dutch, German, Polish and Russian.

To simplify this problem of having to translate into so many languages, ICAO sanctioned the use of only three languages, namely English, French and Spanish. Each contracting state had to choose one of these languages and notify ICAO. French is used in North Africa, Indochina and France; Spanish is used in Latin American countries and the rest of the world use English. Due to the enormity of aviation in USSR, the Russian language was authorised in the mid-seventies. English becomes the major language used in aviation since the biggest contributions to aviation come from English-speaking countries such as United States of America, Canada, Great Britain and Australia. Even in terms of land area and population, the English-speaking regions of USA, Canada, Australia, the British Isles, India, Malaysia, and most of Africa collectively exceed that of the rest of the world.

COMMUNICATION IN AVIATION

We have to understand the complexities of communication in aviation to fully appreciate aviation terminology and the English that is specifically used in aviation. The tools of communication in aviation include:

- Telephone lines
- Teleprinters
- Radio

The various categories of messages that need to be communicated and conveyed are:

- Urgency and Distress
- Flight Safety
- Meteorology
- Flight Regularity
- Aeronautical Administration and Notice to Airmen (NOTAM)
- Airline Operators
- General Services

To overcome the language barrier, ICAO has published standard abbreviations and codes to be used in communication. The codes could be decoded by referring to the encoding list in the sanctioned languages and then translated into the native language. These forms of messages were most suitable for transmission through, but not limited to, the teleprinter circuits. Telephone lines and radio maybe used where teleprinter circuits are not available. For instant two-way communications, such as in Air Traffic Control, codes and abbreviations cannot be used except where the use of approved abbreviations would save time. Imagine a pilot in his cockpit, on receipt of a coded message trying to decode it from a book of codes, while he is trying to fly his aircraft safely. Therefore, plain language interchange in English (or any other approved language) would appear to be the best solution.

PROBLEMS ASSOCIATED WITH THE USE OF ENGLISH IN AVIATION

The use of plain English language for communication in Air Traffic Control has its constraints. The factors affecting its use are:

- Quality of radio and telephone equipment
- Nativity of the personnel

Quality of Radio and Telephone Equipment

Radio and telephone equipment, like all other electronic equipment are susceptible to electric interference and interruption. Moreover, when the aircraft is in motion, it causes a continuous change in the phase of the radio wave. Therefore, the clarity of the voice is affected. The aircraft is also subjected to static electricity in the atmosphere and also solar radiation. Poor quality microphones and speakers could distort voices. Words used in messages transmitted using such equipment have to be carefully selected so as not to cause confusion. For example, the word “not” preceding a phrase, to indicate a negative meaning could get chopped off due to interruptions, thus, giving the phrase a positive meaning.

Nativity of Personnel

Nativity of personnel (air traffic controllers and pilots) using such equipment can be divided into three categories:

- Those whose mother tongue is English
- Those who use English as a second language from colonial influence
- Those who have not been exposed to English at all and have to learn the language specifically for aviation Vocabulary has to be kept to a minimum and words, as simple as possible, to cater for persons in the third category. Malaysians belong to the second category whilst our neighbours, Indonesia and Thailand, are in the third category. Thus communications with them will have to be carefully structured and ordered.

INTERNATIONAL CIVIL AVIATION ORGANISATION STANDARDS

ICAO has published the standards to be followed for telephone and radio communications. These can be classified into:

- Word spelling alphabet
- Standard speech abbreviations
- Telephone and radiotelephone phraseologies The spelling alphabet and speech abbreviations are in compliance with the recommendations of the International Telecommunications Union and are universally used by all agencies operating radio transmitters such as the Marine Department and Police. That part of the spelling alphabet that is unique to Air Traffic Control concerns the use of numerals. Numerals are used to indicate altitudes, (in height, altitude or flight level), the time, the compass reading, and also forms part of an aircraft call sign. There are differences in the way numerals are spoken for each of these instances and proper prefixes have to be used to avoid confusion. The word ‘to’ and the numeral ‘two’ have been the cause of many incidents in aviation. (Example: to three zero zero – to 300 and two three zero zero)

PROBLEMS FACED LOCALLY

Although Malaysians use English as a second language, the multiracial composition of the people has resulted in there being no standard form of spoken English. There is the Malay who swallows parts of words and puts an ‘s’ where there should be none and omits the ‘s’ when it should be there. The Chinese have problems with tenses and

plurals; not forgetting the universal problem of ‘r’ and ‘l’. The Indian is grammatically perfect but has a typical accent and rattles off like a bullet train. He composes his sentences in his mother tongue and when translated into English would be longwinded. Then there are the Europeans who have a variety of accents like Italian, French, German, etc. The Australian is the most interesting because his “A” sounds like “I” and his “E” like “A”.

There are problems with our neighbours as well. The Thais have limited vocabulary, trying to use as simple a language as possible. This often results in embarrassing situations. The Indonesians have no vocabulary at all. They cannot deviate from the standard phraseology.

Problems are faced in the recruitment of personnel. The English gained at the school level is still of a low standard. Those who are proficient in the language usually pursue their studies abroad. The best that we can get are not the best that are available. If recruitment standards are raised, we get none at all!

No amount of standardisation of phraseology can cope with every situation. There are times that a good knowledge of the language is necessary. In an emergency, a human in panic will blurt out anything other than the standard. Then there is also the aviation jargon and terminology used by non-air traffic control personnel. The need in the aviation world for proficiency in English is great, but can we train people to be proficient overnight?

CURRENT WORKFORCE DEMAND IN CIVIL AVIATION

The Department of Civil Aviation (DCA) is currently facing a shortage of air traffic controllers. With the completion of Sepang International in 1997 where a maximum of 8 runways will be in operation, the shortage of air traffic controllers will be more acute. The present shortage is partly due to the expansion of some of the

local airports and partly due to the unavailability of graduates who are proficient enough in the English language to take up the challenge of the responsibility for air safety.

In its efforts to minimize this shortage and in its preparation to cater for the needs of 1997, the Department of Civil Aviation Malaysia and Universiti Teknologi Malaysia are collaborating in offering a Diploma in Civil Aviation, basically to train students to become air traffic controllers. Upon graduation, these students/graduates will be absorbed into the Department of Civil Aviation to fill up the vacancies. One of the areas of concern for this course is the training of students in the specific English used for air traffic control.

Who the Trainees are

The students that we are preparing for are students who do not have any form of solid background in the specific job that they will be trained in. They have only been exposed to one year of general mechanical engineering course in the university with no particular exposure or focus on air traffic control at all. However, as far as English is concerned, they have been exposed to at least a year of English whereby they should have at least reached up to Band 4 of the university's 7-Bands English proficiency test.

In designing the specific English language course, it is important to draw the difference between those who already know the subjects or content in their own language and those who are already employed in their profession but use only their own language.

DESIGNING THE SPECIFIC ENGLISH COURSE

How do we go about designing a specific English language course such as this? For any specific course such as this, one needs to carry out a

needs analysis of the course based on discussion and interview with practicing professionals. This data alone is not good enough as these are not sufficient to give enough indication and exposure to material writers on the specific language required by the profession. With all of the above and the standardised phraseology published by ICAO, the material writers and language trainers still need to have some exposure on how, what, why and when these standardised phrases can be used. To do so, the material writers were given the opportunity to have the hands-on experience of observing air traffic controllers in action at two different control tower locations in Johor Bahru and Subang International Airport. From the observation, they were able to observe how the specific phrases were used, in a language acceptable by others. Based on the discussion, interview, observation and using the standardised phraseology, the material writers then embarked onto the process of coming up with the actual materials to be used in the language training. This is followed by looking at the approach to the teaching of the course.

CONCLUSION

Brevity and precision are deemed necessary in aviation communication as both the pilot and air traffic controllers require very quick and specific instructions in their communication for immediate actions to be taken. Due to the complexities of communication in aviation, the language barrier between the users of the language for communication, the need to achieve the desired results and above all, to avoid any unnecessary mishaps, those involved in aviation communication need to be properly trained especially in the use of specific language in aviation.

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