Introduction of Language Proficiency Requirements on Licenced Maintenance Personnel in Malaysia
Introduction

DCA Malaysia & It’s Maintenance Licensing Requirement

Development of Testing for Maintenance Personnel

Aviation English Competency Assessment (AECA)

Challenges & Wants
Introduction : Who We Are

DTS is a DCA Malaysia Part 147 Approved Training Organisation, for the conduct of Basic Training for Licensed Maintenance Personnel.
Introduction: What We Do

Training

DCAM Part 66 (LWTR)
English Language Proficiency

Testing / Examinations

DCAM Part 66 examinations & Practical Competency Assessment
Aviation English Competency Assessment (AECA)
In 2010, DCA Malaysia introduced its version of the Part 66 for purpose of issuance/grant of Licence for maintenance personnel

In November 2010, DCA Malaysia introduced its airworthiness notices AN 1101 (DCAM Part 66) and subsequently AN1201 (DCAM Part 147)
DCA Malaysia’s Airworthiness Notice on Licensing of Engineers

2 significant differences vs. other NAA’s Part 66 or Licensing System

✓ Competency Assessments
✓ English Language Proficiency

DCA Malaysia made LPRs for maintenance personnel a requirement effective 1 January 2011

the first NAA to impose LPRs on licensed maintenance personnel
DCA Malaysia’s Maintenance Personnel Licensing Process

DCA Malaysia’s Part 66 Licensing Process

- Knowledge/Theory
- 147 Practical
- 147 Pract @ 145
- Collection of Experience @ 145
- Application to DCAM for issuance of Part 66 License
- Examinations
- Practical Competency Assessments
- Entry Level English
- English Competency
4.3 Privileges (b) (iv) ... able to meet the competency level in the English language

4.5 Basic knowledge requirements (a) (ii) ... provide evidence of qualification at least SPM (O-Levels) ... with credits in English language

7.1 General (b) For initial grant of licence, the applicant shall be able to read, write, interpret ... to an acceptable defined competency level in the English language

7.2 Application through ATO (b) (i) ... evidence of competency in theoretical knowledge and the English language

7.3 Application from Airline/Air Operator (f) (i) ... evidence of competency in theoretical knowledge

7.4 Application from Military Personnel (e) (i) ... evidence of competency in theoretical knowledge

JPA 33 (application to sit for examinations) ... documentary evidence of English Proficiency

JPA 32 (application for licence) ... evidence of competency in theoretical knowledge and the English language
Why the Requirements:

**Training:**
Knowledge and practical trainings (ie. training, training notes, task cards, log book, workshop briefing, hangar simulation briefing etc.)

**Examinations:**
Theoretical examinations (MCQ & essay papers) (written) and practical competency assessments (oral/interview)

**Workplace:**

*Line Maintenance* - communication between pilots to ground crew
  - communication amongst maintenance personnel
  - communication with tower etc

*Base Maintenance* - communication between fellow engineers
  - communication between engineers and technicians/mechanics
  - inter department communication eg. QA and production
  - reference docs. AMM, SB, AD, IPC, TSM, SRM etc.
Why the Requirements: (cont/......)

there have been some accidents and incidents that were caused and partly caused by the lack of understanding of the English language (eg. shift handover reports were misunderstood, instructions in the AMMs were misinterpreted etc. – disturbing)

Reason SPECIFIC to Malaysia (National Issue)

the overall levels of English language proficiency in Malaysia has declined possibly due to the national schooling system. In the maintenance field, “new generation” licensed personnel have been found to be less proficient in the language compared to the more senior personnel
DCA Malaysia Expects Resistance...

Similar to when LPRs were first introduced to pilots and ATCs

Senior Maintenance Personnel

“I’ve been an engineer for more 20 years, why should I be tested?”

(demands Grandfathers’ Rights)

Training Organisations

shall have to provide ELP training, hence,

training resources and cost, as well as production time escalates
at present

an applicant for DCAM Part 66-module examination shall provide evidence of English competency (credit in the English language O Levels – equivalent)

later

an applicant for initial grant of licence shall provide an acceptable defined competency level in the English language (ICAO level 4/Operational level equivalent, via the AECA testing system)

full implementation: an applicant for renewal/extension of licence shall be re-assessed on his/her levels of English to determine level 4/Operational level equivalent, via the AECA (or future) testing systems
"...ICAO congratulates states on these initiatives and efforts to comply with ICAO Annexes. Also indicated that there will soon be requirements for English proficiency for maintenance staff as well..."
Are Others Looking at English Language Proficiency for Maintenance Personnel?

Most recently, in 2012, Guidance Document from EASA for marking of essay examinations....

AMC Annex to ED Decision 2012/04/R

- The answer to the question (essay) will be analysed for the clarity and manner in which the essay report is presented and have a weighting allocated to it which will represent 40% of the mark.

- The essay should also show the candidate’s ability to express himself/herself in technical and plain language. This includes readability of the language, basic grammar and use of terminology.

- The report/essay should not be indexed, itemised or listed.

- The report starts in the beginning and has a logical process to reach a conclusion.
Developing a Language Proficiency Testing System for Maintenance Personnel

*It was natural and automatic to look at what had been done for LPR and tests for Pilots & Controllers*

*Hence Doc 9835, and prior documents from ICAO, ICAEA were referred to, including Annex1 and its chapters*

*Sit ins and observation of tests by those TSPs in Malaysia*

*Our experience in conducting training and also tests was another obvious point of reference, and analysis of data/outcome from such tests*

*Other sources of reference from non-aviation language test systems such as IELTS etc*

*Inputs and data from actual workplace and maintenance personnel*
Subsequently...

**Leading to us designing and developing a testing system that focuses on licensed maintenance personnel...**
Differences: Testing for Maintenance vs for Pilots/Controllers

The use of the term “Assessment” as opposed to “Testing”

Some similarities, at the same time some significant differences with testing for Pilots/ATCs

- ✔ Speaking
- ✔ Listening
- ✔ Reading
- ✔ Writing
- ✗ No Radio Telephony (RT)
Aviation English Competency Assessment (AECA)

encompasses ALL 4 language skills, namely Reading, Listening, Speaking & Writing.

**Pilots/ATCs – Listening & Speaking +RT**

**Reading:** LATs & LAEs make reference to documents such as AMM, IPC, SB, TSM, AD, SRM, ESM etc.

**Writing:** Job Cards, Inspection Report Cards, Log Books, Defect Report, shift Hand-Over Report etc.

**Listening:** briefing, announcements, instructions, discussion, etc.

**Speaking:** briefing, instructions, discussions, shift hand-over communication, communication with ATCs, pilots & other ground personnel etc.
Reading & Writing Most Important:

**Writing:** Generally essay in form, even though Report Writing is what most would expect

**Reading:** Other than article or report reading to test comprehension, an element in diagrammatical form for translation into understanding, is also used. This element normally relates to the main article used in the test.

Example:

<table>
<thead>
<tr>
<th>Article Topic</th>
<th>Diagrammatical</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Thank God for GPS Nav”</td>
<td>Map</td>
</tr>
<tr>
<td>“Flat Pack Furniture”</td>
<td>Assembly Manual</td>
</tr>
</tbody>
</table>
Challenges..... And hence Our Wish List

No specific reference/ guidance documents (similar to ICAO Docs. 9835, 323, 318)

ICAO to develop and issue similar documents for purpose of general guidance (if not for compliance yet)

Records / Incident Reports related to language or communication in the maintenance field is also scarce

Efforts by ICAO and major authorities including FAA/EASA/NTSB to compile/collate such for use by TSPs moving in this direction

Acceptance by personnel of such requirements

ICAO to “impose” LPR for maintenance personnel and hence revision of Annex 1 (Chapters 1 and 4)
Ultimately.... Eventually....

ICAO’s endorsement of TSPs for Maintenance Personnel