

Communications and Culture between Pilots and Controllers: Does it all just come down to language?



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Reflecting on a lecture course

- « Communications in ATC »
- Human Factors curriculum
- Four out of seventeen hours





The starting point

- « Is this an English course or a Human Factors course? »
- Criticisms of cultural differences models (Hall, Hofstede, etc.)





Two questions : Pilot-Controller communications as one aspect of Human Factors in aviation



- By communications, do we essentially mean language problems or is there more to it than that?
- How far can we go and need we go in providing intercultural training to help ATCs for communication with pilots, if we already have English phraseology and plain English, which are supposed to be universally applicable throughout the world?





Part I: Is pilot-controller communications just language?—the case for language



Components of the course (FABEC version)

- Functional Air Block Europe Centrale
- Standardized ATCO Basic course
- Recentering/Emphasis on linguistic mastery





Part I: Is pilot-controller communications just language?—the case for language



Components of the course (FABEC)

- History of air-ground communications
- Characteristics and use of phraseology and plain language



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Part I: Is pilot-controller communications just language?



- **Components of the course (FABEC)**
 - Communication, the communication process
 - Link between communications problems and incidents/accidents





Part I: Is pilot-controller communications just language?



- Evolution of the course (FABEC Basic)
 - Culture virtually absent
 - Little mention of non-linguistic causes of misunderstanding
 - Implication: language is the essential safety problem in air to ground comm





Part I: Is pilot-controller communications just language?

Your protection against misunderstanding

- **Standard phraseology**
 - well-designed
 - disciplined use
- **Plain language**
 - sufficient command
 - intelligent use





Part I: Is pilot-controller communications just language?—the case for language



- **Pre-FABEC content**
 - Original ENAC version of course
 - Strategies for prevention, repair of misunderstandings—essentially interactive language skills





Part I: Is pilot-controller communications just language?—the case for language



Tools for repair: plain language

SPEECH ACT

- signal incomprehension
- request reformulation
- Reformulate
- request partial repetition
- Gloss

PHRASES

I'm sorry. I don't understand.

Could you spell that for me?

We need a stretcher... something to carry our patient to the ambulance.

Put it where?

I'm not asking you. I'm telling you.





Part I: Is pilot-controller communications just language?—the case for non-language aspects



- Non-language aspects : strategies for repair, prevention of misunderstandings
- Their difficulty is not linked to language





Part I: Is pilot-controller communications just language?-- the case for non-language aspects



Evasion of repair

- Fear of seeming impolite or incompetent
 - Unwillingness to waste time
- Preference to « wait and see »
 - Hope the problem will go away





Part I: Is pilot-controller communications just language?—the case for non-language aspects



- Other ENAC version content
 - More complex model of communication process
 - linguistic/non-linguistic sources of misunderstandings
 - Impact of cultural differences





Part I: Is pilot-controller communications just language?

- Non-language causes of misunderstanding:
(Steven Cushing, *Fatal Words*.)
 - Number similarity
 - Radio problems
 - Fatigue/distraction
 - Impatience
 - Expectations
 - Memory





Part I: Conclusion



- Why the FABEC's emphasis on linguistic aspects?—objectives of the Basic course
- The challenge: find room for the non-linguistic aspects (including culture)





Part II: Phraseology, plain English and intercultural skills



Second question: If we have phraseology and plain English, how sensitive can we and need we be, to cultural differences?





Part II: Phraseology, plain English and intercultural skills

- What is interculturality, what are intercultural skills?
- Openness, adaptability to other culture's way of working, communicating





Part II: Phraseology, plain English and intercultural skills



- ICAO point of view

(ICAO - INTERNATIONAL CIVIL AVIATION ORGANIZATION (2004). *Human factors digest no 16. Cross-Cultural Factors in Aviation Safety.*)

- Dominant safety culture (Western Europe/
North America)
- Weighted interfaces





Part II: Phraseology, plain English and intercultural skills



Weighted interfaces: results

Option 1: ASSIMILATION	Option 3: INTEGRATION
<p>One size fits all.</p> <p>Culture A learns and adopts dominant model</p>	<p>Local solutions.</p> <p>Culture A interacts with proponents of Dominant Model to understand and modify approaches.</p>
Option 2: COSMETIC COMPLIANCE	Option 4: MARGINALIZATION
<p>Face value</p> <p>Culture A gives the appearance of adopting dominant model.</p>	<p>Isolation.</p> <p>Culture A is unable to adopt dominant model; no option.</p>





Part II: Phraseology, plain English and intercultural skills



- **Phraseology and plain English**
 - Simple, direct, clear
 - Facilitated for non-native speakers
 - Mutual effort from high and low proficiency Users (Doc 9835)





Part II: Phraseology, plain English and intercultural skills

- Substantial linguistic adaptation
- Can we/need we go further?





Part II: Phraseology, plain English and intercultural skills



- **Avianca 52**
 - Robert L. Helmreich, Ashleigh C. Merritt, *Culture at Work in Aviation and Medicine*, Burlington, VT, 1998
 - Miscommunication about a critical fuel situation – impact of cultural differences
 - Aftermath: special handling of Avianca flights at JFK





Part II: Phraseology, plain English and intercultural skills



Your conclusion: which statement do you agree with more?

- 1) Phraseology and Plain language work precisely because they are supposed to be the same throughout the world and any modification to adapt them to specific national cultures would cause confusion and compromise safety (the Assimilation solution)...**OR**...
- 2) Today, air travel is growing fastest in regions of the world that are outside of the “dominant culture” where phraseology and the concepts of plain language were developed and those cultures must be allowed to adapt those concepts to their way of communicating (the Integration solution).





Conclusion

When we view pilot-controller communications in English from a Human Factors perspective, do they just come down to language?

- Globally, no: there are linguistic and non-linguistic causes of misunderstanding and evasion of repair
- For the impact of cultural differences, yes in a way: phraseology and plain English remain

