CAR/SAM WORKSHOP ON LANGUAGE PROFICIENCY REQUIREMENTS (LPR)

An online test for airline pilots designed to measure communication processes situated in scenarios of simulated failure. An anthropological vision.

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EASA
European Union Aviation Safety Agency

EU-LAC APP II Latin American and Caribbean Aviation Partnership Project

LPRs. General introduction

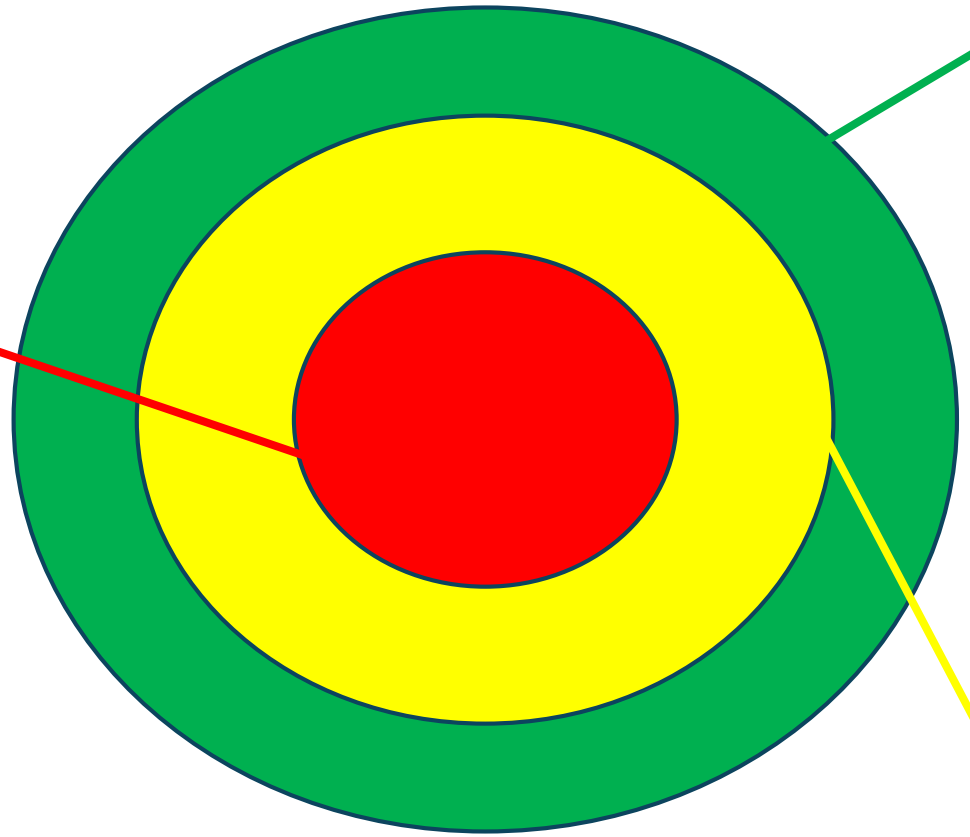
1. Aspects of how ICAO LPRs that could be reviewed with recommendations.
2. Mexican Airlines find this exam very reliable.
3. Usually, they fly from Mexico to the USA.
4. The test goes hand in hand with authentic communication challenges that exist today in the National Airspace System (NAS) of the USA.
5. We measure communicative processes.
6. Three qualitative type processes (plain English) and one quantitative type (phraseology).
7. We develop theory to support practice.
8. 35% of those who have passed the official test in Mexico fail with this proficiency test.
9. We predict 95% if the pilot will be able to communicate with efficiency in the NAS.
10. 2,000+ online tests.

Method and Tools

- Research (CONACYT funds).
- Communication ethnography.
- We gather information from real and simulated cases.
- Continuous research.
- We do not use a priori definitions
- What is the data telling us?
- We observe patterns and regularities

Three Linguistic Zones Model

May Day –
May Day –
May Day –



Routine
Standard
Phraseology

Negotiations
–Use of plain English–

Clarify: Its role in repairing the green zone

Properties of Interaction in Linguistic Zones

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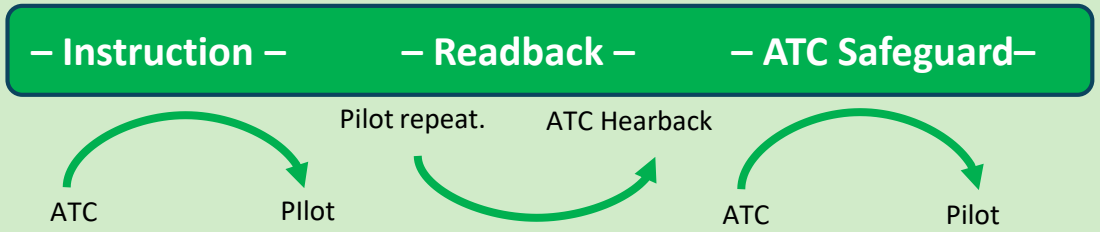
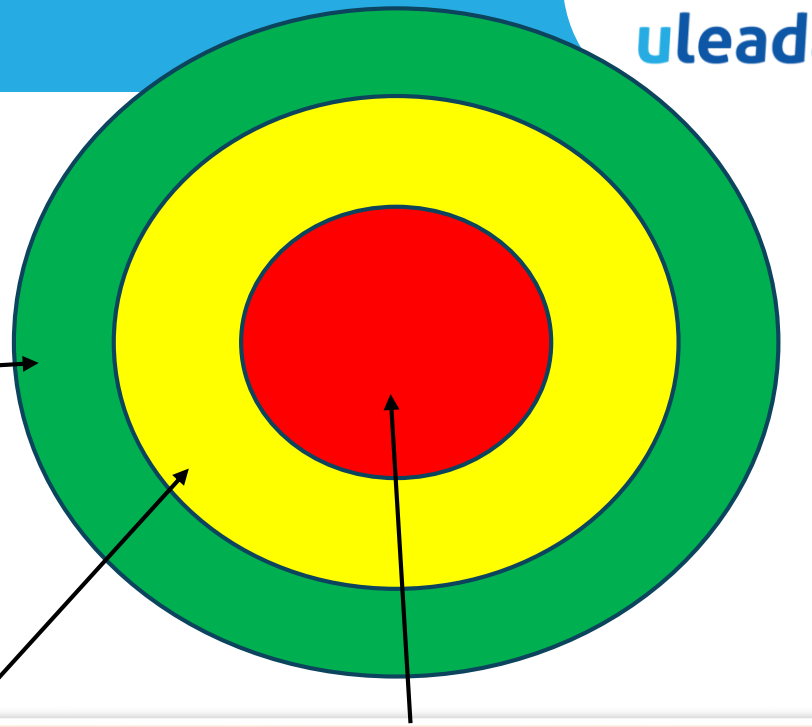
Green Zone: Standardized Phraseology



Typical Cycle: **Complete, Accurate and Clearly**



Yellow Zone:

1. When the situation takes an unexpected turn of events, the pilot becomes a co-participant in the interaction.
2. We measure three communicative processes

Red Zone: in rare cases, the pilot decides to declare MAY DAY

- Cultural aversion
- The word May Day has a psychological rejection effect

Situated communications

- We have developed a digital simulator in real time.
- This online simulator comes to life with the participation of experienced native English ATC’s.
- This configuration allows test-takers to find themselves situated in a flight context to demonstrate strategic communication through authentic interactions.
- The exam incorporates realistic tasks around a mechanical failure that occurs during the simulation.

IATA's Failure Context to demonstrate Competencies

Failures that require complex procedures.

- Failure of two hydraulic systems
- Nose Landing gear unlock
- Flap failure
- Engine stalls or surge
- Smoke in main landing gear on the ground

1st Communicative Process:
Strategic Communication Resources During Failure

Resources used during a mechanical failure. The pilot becomes an active co participant with the controller, where he or she must be able (or not) to establish effective and continuous communication to express his or her intentions.

Cont… 1st Communicative Process: Strategic Communication Resources

Premise 1. The pilot as a co participant in the interaction:

1. What is being talked about → What is the theme
2. What is said about it → How is it affecting me?
3. What is the new information about what has already been said? → What should I answer or say
4. What is the background → How do I place myself in the context?
5. How does all this affect my flight and what can I do? → Intentionality:
    a. Nature of the failure.
    b. New action plan
    c. New requirements
    d. Coordination with the ATC

2nd Communicative Process: The Structure of the Messages

Premise 2. Grammatical structures obtain their functional meaning through their relationship with the context in which they appear.

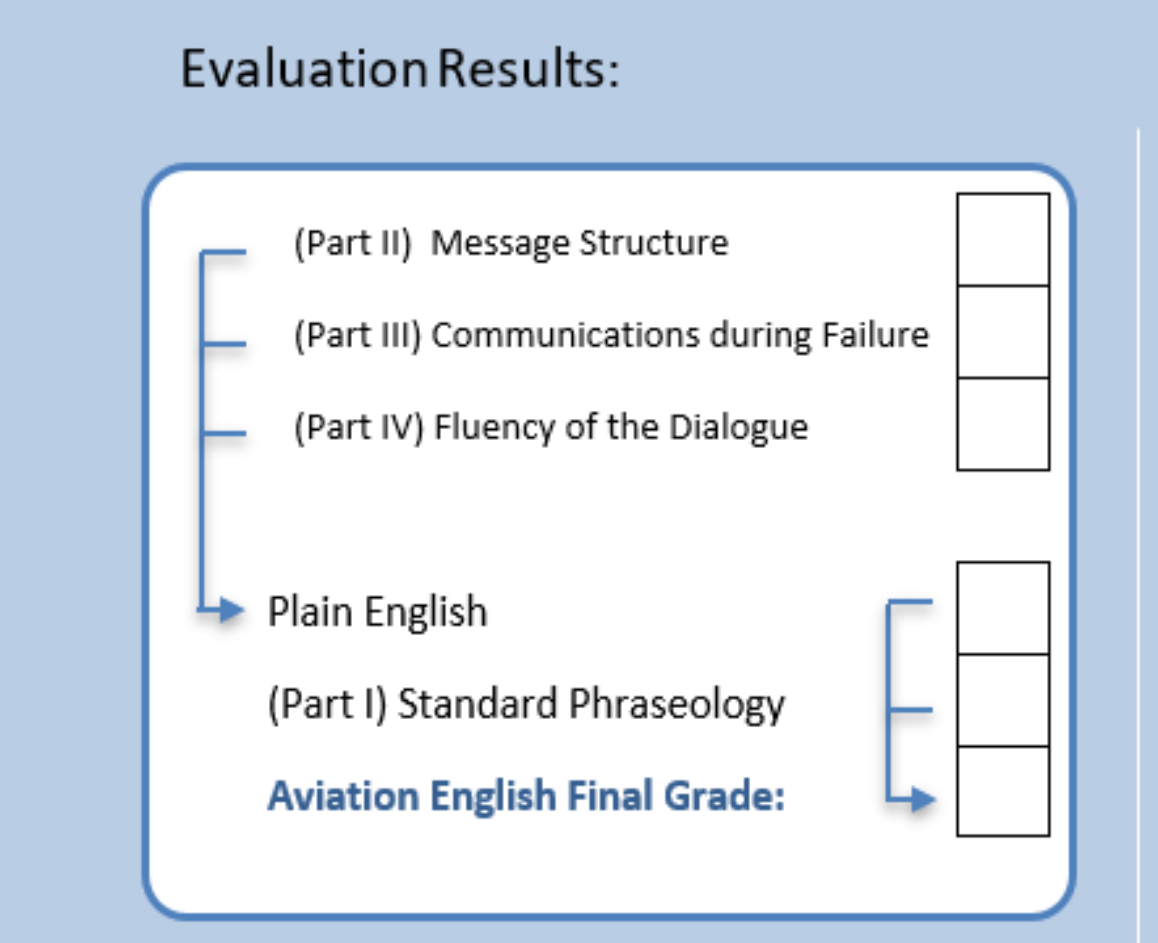
The pilot expresses the content of his/her message using: 1). Elaborated syntactic structures, or; 2). Simpler speech units to describe the emerging situation. We observe if the pilot is capable to maintain (or not) coherent exchanges with the ATC.

3rd Communicative Process: The Fluency of Dialogue

Premise 3. Frequent pauses without apparent functionality distracts or interrupts other processes.

Interaction is fluid when it is ensured that the limits of turn-taking exchanges (the conversational and pause segment) coincide with the boundaries of the syntactic units (the utterance in sentence form).

In sum…



1. We measure three communication processes.
2. We observe the situated interaction of the pilot who has a clear objective to achieve.
3. Allows the use of efficient and strategic communication resources.
4. Several goals/objectives are distributed.
5. Situational awareness is updated.
6. It is very realistic.

Thanks…

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