

Factors affecting real-world pilot and ATC communication

PILOT and ATC interview panel



INTERNATIONAL CIVIL AVIATION ENGLISH ASSOCIATION

supporting the use of English for aviation safety

Panel

ATCOs



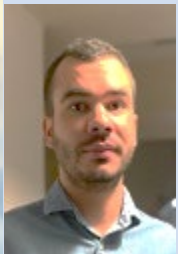
Alicia Guana *Argentina*

- ATCO since 1993: EZEIZA AREA CONTROL CENTRE - en-route, terminal and radar approach, supervisor and OJT Instructor
- Operational Safety Office at EZEIZA International Airport
- CIPE: standardized phraseology teacher, ATC LPR test, interlocutor and rater



Aline Jones *Switzerland*

- ATCO for 15 years at SWISScontrol: Lugano Tower then moved to Geneva Enroute centre as ACC ATCO until 2005
- Since 2007 moderating CRM-TRM sessions in Skyguide for ATCOs and pilots
- ELPAC examiner for ATCOs



Sebastian Zeries *Romania*

- ATCO at Bucharest Area Control Center
- ATPL
- Investigator for the safety department since 2018
- Instructor for ATCO recruits at ROMATSA over last 12 months

Pilots



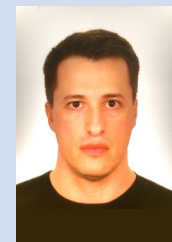
Anja Beerens *The Netherlands*

- Started flying turbo-prop aircraft in New Zealand, 1993
- Commercial airline pilot for more than 20 years
- Since 2007: Hong Kong Airlines B737 and Airbus 320/330/350 captain



Lance Powell *UK*

- 9,000 flying hours and 2000 hours as flight simulator instructor and examiner
- A320/330/340/350 for over 20 airlines globally as line pilot and training captain
- Airbus Industries for 12 years as instructor, examiner
- Head of Training for Airbus China, and Director Flight Operations for Hong Kong Air Cargo



Gabriel Greggio *Brazil*

- Airline pilot since 2004, starting with
- GOL Airlines, Captain since 2011
- Fuzhou Airlines, China since 2017
- 11,000 hrs flying Boeing 737NG plus 300 hrs flying Boeing 737-Max

ICAEA Moderators



Michael Kay *ICAEA President*

- 26 years of experience Aviation English test and curriculum design, development and implementation
- Master's in Applied Linguistics
- Aeronautical Radio of Thailand - Providing curriculum and training support for the Thai ANSP since 2011



Neil Bullock *ICAEA Vice President*

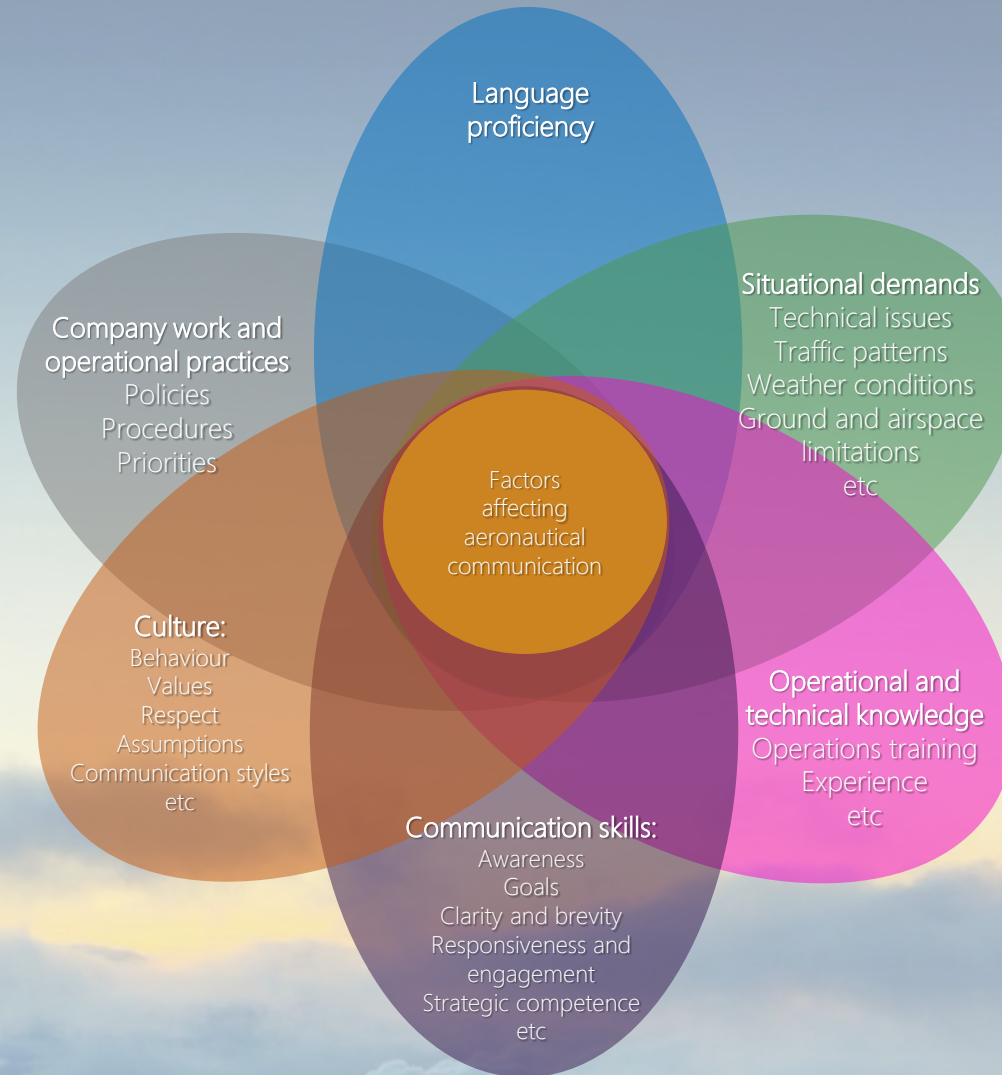
- 20 years of experience in air traffic control and airside operations
- 15 years in the field of aviation English testing and training
- Master's in Applied Linguistics
- SWISS FOCA LPR test development and training since 2007



Ana Lucia Monteiro *ICAEA Board*

- PhD in Applied Linguistics and Discourse Studies, focusing on construct specification and the impact of cultural factors on international pilot-controller communications
- ANAC (Brazil) regulator, test developer, item writer, interlocutor, rater and rater trainer since 2005

Aeronautical communication



Case study 1

SWR1311



A319 – bird strike on departure from St Petersburg 2013

SWR1311: SWISS 1311, MAYDAY, MAYDAY, MAYDAY, bird strike. Climbing to 900 metres height ... proceeding straight ahead.
Departure: Roger mayday, eh, would you like eh, RWY 10L?
SWR1311: Via Runway 28R. Proceeding straight ahead. Request radar vectors.
Departure: 110. ... SWISS 1311, identify.... What kind of .. eh.. problem?
SWR1311 : Ok, climbing to 3100 and request radar vectors. Say again the heading.
Departure: SWISS 1311, turn left heading 110.
SWR1311: Left heading 100, SWISS... SWISS 1311.
Departure: SWISS 1311, what is the problem?
SWR1311 : Say again, SWISS 1311.
Departure: SWISS 1311, what is the problem ... mayday?
SWR1311: Bird strike ... bird strike.
Departure: Ahh ... SWISS 1311 ... ehh, you catch er ...
SWR1311: Request 10 mile final, SWISS 1311.
Departure: SWISS 1311, expect.
Departure: Strike bird ... affirm ... SWISS 1311.
SWR1311: Say again.
Departure: SWISS 1311,. ... you ... catch ... eh bird?
SWR1311: Say again
Departure: What is your situation, SWISS 1311?
SWR1311: High vibrations 1 and 2 engines ... 2 engines.
Departure: SWISS 1311, eh, because ... catch .. eh, a bird?

SWR1311: Ground, hello, SWISS 1311. We have stopped at the intersection. Both engines are shut down. We would like to have the fire brigade to inspect for any smoke or fire.

Ground: *SWISS 1311, Pulkovo Ground, hello. Pass your message.*

Ground: *SWISS 1..., (1311) Pulkovo Ground.*

SWR1311: Go ahead, SWISS 1311.

Ground: SWISS 1311, pass your message please.

SWR1311: Please say again.

Ground: SWISS 1311, Pulkovo Ground, wait on Taxiway B4.

SWR1311: How can we wait? We have shut down all engines. We cannot move. We cannot move. We need a tractor. We need a tractor.

Ground: SWISS 1311, roger. A car will be sent for you.

Ground: SWISS 1311, specify what engine got strike.

SWR1311: Both engines. Engine 1, Engine 2. We had problems. Now we shut down the engines and the fire brigade should just look whether there is smoke.

Ground: SWISS 1311, do you ... ehh... need disembark passengers?

SWR1311: No!, I need a tractor.

Ground: SWISS 1311, roger. Tractor sent for you.

Case study 2

TGW2638



A320 – Engine cowling detachment on climb, followed by gear-unsafe warning
(Changi, Singapore, 2015)

TGW2638: Departure good evening *GO CAT 2638 AROSO 2 Alpha*, passing 900 climbing 3000.

Departure: *GO CAT 2638* Departure, identified, climb to 6000 feet.

TGW2638: Climb 6000 feet *GO CAT 2638*.

TGW2638: Request to hold due to technical.

Departure: And, ah advise nature of technical, when able.

TGW2638: Ah. standby Radar, we have to check *GO CAT 2638*. Request for holding pattern.

Departure: Ok initially heading 270 and, ah, keep me advised.

TGW2638: And *GO CAT 2638* roger we are entering a hold at present position and be advised we need to return to Singapore. Will advise on the technical.

Departure: OK copied that. We'll inform the tower. Let me know the nature of the issue ASAP.

TGW2638: *GO CAT 2638*.

Departure: Do you require dump fuel?

TGW2638: ... ah radar, *GO CAT 2638*?

Departure: Do you require dump fuel for *GO CAT 2638*?

TGW2638: Ah, standby *GO CAT 2638*. Be advised the passengers have reported that our left hand engine cowling has, ah, come off.

Departure: Left hand engine housing has come off?

TGW2638: C-O-W-L-I-N-G.

Departure: Left hand bowling has come off?

TGW2638: Cowling. Charlie - Oscar - Whiskey - Lima - India - November - Golf.

Departure: Eh, cowling copied. *GO CAT 2638* I need to double-check. Is ah, some passenger informed that the left-hand engine, ahh, cowling has come off?

TGW2638: Yes that's what the passengers reported and the senior flight attendant as well. So the intention is to return to Singapore. All indications are currently normal.

Departure: OK I understand. Can you spell for me cowling?

TGW2638: C-O-W-L-I-N-G.

Departure: OK copied that.

Departure: Do you require any fuel jettison?

TGW2638: We are not able for that...ah, that's the reason why we would like to enter the holding first. We are able for overweight landing so that's not a problem but we'd like to enter holding first.

Departure: OK *GO CAT 2638* understand you require to come back to Changi to land as ASAP.

TGW2638: Affirm, requesting radar vectors back to Changi airport Runway 02 Charlie *GO CAT 2638*.

TGW2638: And, Radar Arrival this is *GO CAT 2638*. 7000 feet heading 200. Request a slight delay.

Arrival: *GO CAT 2638* Singapore Arrival. Runway 02 Centre. Descend to 4000 feet.

TGW2638: Descend to 4000 feet for 02 Centre *GO CAT 2638*.

Arrival: *GO CAT 2638* request how long duration of the delay do you require?

TGW2638: About one-zero minutes *GO CAT 2638*.

TGW2638: We do have now a gear unsafe warning so ah, we cannot continue the ILS. Request a radar vector to the right heading 060.

Tower: Ah, *GO CAT 2638* say again your request.

TGW2638: Request heading 060. We do a un, gear unsafe warning.

Tower: OK *GO CAT 2638* just to confirm your error message now on your board is an unsafe warning?

TGW2638: Yes we have to go through the procedures for the landing gear unsafe. Please give us 5 minutes. We'll try to verify the extension and I'll come back to you, *GO CAT 2638*.

Tower: OK understood thank you.

TGW2638: MAYDAY MAYDAY MAYDAY, *GO CAT 2638* at 4000 feet on heading 180. We do have a unsafe gear warning. Request to delay the approach for at least one hour to reduce the weight of the aircraft. POB is 183. Registration 9V-TRH.

Tower: And just to confirm your holding endurance?

TGW2638: GO CAT 2638 we can hold for three and a half hours.

Tower: GO CAT 2638 contact Singapore Departure 120.3.

TGW2638: GO CAT 2638 120-3.

Departure: OK when able could you advise the nature of the Mayday?

TGW2638: Yeah first we...the engine cowl fell off and during the approach we had a landing gear unsafe warning. We tried the alternative procedure but the landing gear on the left side is still indicated as unsafe so we are going through the full procedure. Ah, we are currently burning fuel. The weight of the aircraft is 69 tonnes. The maximum landing weight is 64-5...64,500 kilos so we need to burn fuel for ...we need to continue in the hold for at least an hour.

Departure: GO CAT 2638 ok copied. The reason for the Mayday is because the engine cowling fall off and that during the approach...can you say again?

TGW2638: Landing gear unsafe. Landing gear unsafe on the left side. The main landing gear on the left side is not down, according to the indications.

Departures: GO CAT 2638 copied. And ah, approach landing gear on the left side is not down according to the indications..

TGW2638: Affirm GO CAT 2638. We'll continue the hold and call you when we are ready for the approach. The aircraft probably needs to be towed from the runway.

Departure: Ok confirm the aircraft needs to be towed when after landed.

TGW2638: Affirm.

Departure: And GO CAT 2638 just to check after landed you have to be towed. Can you vacate the runway on your own power initially?

TGW2638: That's a negative GO CAT 2638. We suspect we need to be towed off the runway.

Departure: No problem, no problem.

Departure: Is you hydraulic tank safe?

TGW2638: Ah, standby, GO CAT 2638.

TGW2638: Departures, say again for GO CAT 2638.

Departure: GO CAT 2638, check if your hydraulic tank is safe.

TGW2638: And, Departures, GO CAT 2638, the hydraulic indications are normal.

Departure: Confirm your hydraulic indication is normal?

TGW2638: Affirmative, they are normal, GO CAT 2638.

Departure: GO CAT 2638, from the airport emergency services – they would like to know if you are confident to make the landing.

TGW2638: GO CAT 2638, we are able for landing, however we do have a landing gear unsafe warning for the left main gear.

Departure: GO CAT 2638, understand the left main gear has a unsafe warning, but however the officer from the eh, airport emergency would like to know whether you are confident - to make the landing.

TGW2638: Affirm.

TGW2638 We declared a Mayday about one hour ago so I do expect the equipment on standby. All of the equipment.

Tower: 2638 copied. The engineers are already on standby at Echo 6. They will be observing your aircraft for the landing gear.

Implications for training?

