

Report 06 – Content Analysis: Language Functions & Language Elicited in TEA



Introduction

As part of ongoing test validation studies, research into the internal validity of TEA has not only helped to monitor and rate test content but also influence improvement. This report will focus solely on an investigation into the language *elicited* by the test and, in particular, on the language functions that the test appears to elicit. The word ‘appear’ is used here since the Test Development Team (TDT) recognise that expert opinions may vary and that many judgements in language testing are open to interpretation. The objective of this report is, therefore, to demonstrate that through qualitative analysis of three transcribed tests an argument to support TEA’s validity can be made. Although many more tests would need to be analysed to present a full picture, by analysing three sample tests the reader can judge the methodology, data and conclusions for themselves (rather than be presented with unsupported data). The tests analysed here can be considered ‘normal’ samples and indicative of the majority of tests.

The concept of using test response analysis to validate tests is not new. Fulcher and Davidson (2010) describe the theory:

“A test task is essentially a device that allows the language tester to collect evidence. The evidence is a response from the test-taker, whether this is a tick in a box or an extended contribution to a dialogue. The ‘response as evidence’ indicates that we are using the responses in order to make inferences about the ability of the test taker to use language in the domains and range of situations defined in the test specifications.” (p62)

For reports detailing the content of test materials, see:

Report 08 – Item Development & Version Content

Report 09 – Assessing the Reliability of Test CDs during Development

Report 10 – Establishing Comprehension Score Ceilings for TEA Version 2010

In focussing on the language elicited by TEA, it is possible to make judgements about content validity. Two strands of analysis are described here:

1. Observational Checklists of Language Functions
2. Language Analysis

Part 1: Observation Checklists (OCs)

Observation Checklists (OCs) are designed to measure how often candidates use different language functions during a test. They help to show whether a test is eliciting the language we expect it to. Observation Checklists were used by Cambridge ESOL to validate the First Certificate exams, and are so-called because examiners watched video recordings of the tests. They have also been used by IELTS with tape recordings of tests.

The TEA Observation Checklist (TEA OC) was constructed to reflect the functions that the test designers hoped to elicit from candidates. These functions had been especially based on Appendix B of Document 9835 (Communicative Language Functions, Events, Domains and Tasks associated with Aviation) which lists 116 functions of pilot-controller communication (see APPENDIX C for the complete list). For the purposes of developing an effective and practical checklist which could be applied easily in real time these functions were simplified or collated, as in the example shown below:

Where 9835 lists:

Describe a state
Describe a changed state
Describe an unchanged state
Describe an action in progress
Describe a process
Describe a procedure
Describe aims/precautions
Describe the source of a problem
Describe a visual impression
Quote rules

in the TEA OC, this was simplified to:

Describe a Procedure
Describe a Sequence or Process
Describe a State or Position
Describe an Action in Progress

The TDT wanted the final list to condense the 9835 inventory as fully as possible considering two important factors. Firstly, the OC needed to be descriptive enough to accurately reflect the variety of functions elicited in testing. Secondly, and conversely, the OC had to be brief enough to be effectively applied by researchers. Application of the TEA OC evolved through trialling. It was recognised quite early in the process that applying the OCs during real-time listening produced results too diverse to be considered precise enough. Test transcriptions have been used ever since (with occasional reference to recordings, where necessary) as all users stated the greater ease with which it possible to map functions onto transcripts of candidate output.

Trials and re-drafting led to a TEA OC containing 37 language functions (see APPENDIX A for the complete list). It was recognised that many of the 116 language functions listed in 9835 could not be elicited in a test of plain English for Aviation since they relied on standard, memorised aviation phraseology. The labelling of some grouped language functions also proved awkward:

- *Express Opinion* reflects several aspects of the 9835 list, such as agreeing or disagreeing (refusing), suggesting possible alternatives, approving and disapproving, discussing feasibility, complaining and expressing (dis)satisfaction
- *Speculate* reflects reporting incidents and events in which the exact details are not known while identifying potential answers

From an item design perspective, experience has shown that eliciting responses to items that encourage candidates to express an opinion or speculate also elicits complementary language functions such as expressing needs or wishes, explaining, stating possible consequences, etc.

Two language functions that didn't fit within the 9835-led categories but were elicited in the test were those labelled *Elaborate* and *Stage*. '*Elaborate*' describes the language of further reasoning and explanation of ideas in detail, or extended explanation of shared knowledge. *Stage*' describes the function of language that speakers use to set the context of the next utterance, or verbalising their thought process. Utterances such as "*Well, let me think...*" seem peculiar to the aviation context since pilots and controllers are encouraged to speak in a brief, precise, controlled manner (somewhat at odds, therefore, with the assessment needs as described by the ICAO Descriptors). Nevertheless, it was agreed that such use of language should be recorded by the TEA OCs.

The 9835 list makes reference to language use appropriate to past, present, & future use. The TEA OC reflects this by labelling elicitation of functions that refer to three 'times', as in: *Speculate about the Past*, *Speculate Generally or about the Present*, and *Speculate about the Future*.

The process of mapping the functions onto the transcripts showed that the OCs were sufficiently comprehensive to assign a function to most of the language elicited from candidates. Exceptions occurred with extremely low-level candidates who produced language so devoid of form that it was impossible to deduce their communicative intent.

Applying the TEA OC

The OCs only measure the functions produced, whereas the ICAO Descriptors measure communicative proficiency. So, where a poorly constructed sentence, for example "*I am working here for 29 years*", may be penalised in terms of assessment, it would be recorded as *Provide Information Generally or about the Present* in the OC. Similarly, the checklists do not measure the appropriacy of a response.

TEA OCs are generally applied to groups of transcripts to assess how candidates respond to new tasks or individual questions, or to whole tests, thereby providing the TDT with valuable data regarding item or task evaluation and the functioning of TEA more generally. The objective of this report is simpler: to show the reader how the application of OCs can demonstrate the types of language functions typically elicited by TEA.

The language functions listed by the TEA OC have been mapped onto three sample test transcripts in which the candidates received identical test versions. The three candidates were at three distinct proficiency levels in the following order from highest to lowest level: Moroccan ATC, Italian Pilot, and Russian ATC. (For detailed information about assessment of their performances, see **Report 12 - Example Criteria in TEA Assessment: 3 Annotated Test Transcripts**). The transcriptions and the function labelling can be viewed in APPENDIX B. The following criteria were (and are) used for the purpose of applying the TEA OC:

1. The application of OCs can be subjective and disagreements over the functions that best describe utterances will occur. For example, the function associated with a candidate describing a typical day could be '*Provide Information Generally or about the Present*' or '*Describe a Sequence or Process*'. Since a group of experienced linguists are unlikely to fully agree in their interpretations of speaker intention, it was decided that it was more logical and effective to demonstrate an argument for functions being elicited by TEA than debate the linguistic challenges in agreeing upon every label and attempting to achieve perfect calibration. Hence, the analysis attempts to focus more on evidence of function elicitation than counting totals since utterances could be interpreted in different ways.
2. Within one turn, multiple examples of the same function identifiable within different 'utterances' within the turn will be labelled accordingly (in the transcripts). However, individual language functions will only be 'counted' once for that turn. To give an indication to the reader of which functions are more or less commonly elicited by TEA, frequency totals are counted although these should be considered tentatively since they are not intended to demonstrate a high degree of accuracy.
3. During the labelling of functions, '*Summarise & Relay*' is used to describe the function of paraphrasing or reading-back the recordings in Part 2A. There are several reasons for this approach: the language elicited has been prompted by the recording; there may be examples of direct read-back or paraphrasing; and it is easier to label it under one function. The aspect of 'relay' that is pertinent to the label is the acknowledgment in 9835's list of communicative functions that relaying messages in potentially relevant to both pilot and controller roles.

From 9835, under Management of the Dialogue, the following language functions are listed:

- Relay an order (C)
- Relay a request to act (P)
- Relay a request for permission (P)

While Part 2A is focussed primarily on assessing candidates' ability to comprehend short messages in non-routine situations, in a productive sense, candidates are demonstrating ability to summarise, read-back or paraphrase and relay that information.

Data

Application of the TEA OCs to the three test transcripts produced the results in the Table 1 below. The symbol ○ is used where evidence of function elicitation exists and the number is an indication of the frequency of elicitation although, as discussed above, this is intended to be indicative of frequency and not a highly accurate measurement.

Table 1 – Data from application of TEA OCs to 3 test transcripts

Language Function	Moroccan ATC	Italian Pilot	Russian ATC
Apologise / Express Difficulty or a Concern			○ 4
Ask about Needs or Intentions			○ 2
Ask for Information	○ 3	○ 1	○ 1
Ask for Help			
Check Clarify Confirm	○ 1	○ 4	○ 3
Compare States	○ 2	○ 5	
Compare Times	○ 1	○ 2	○ 1
Correct	○ 2	○ 1	○ 1
Declare Non-understanding	○ 1	○ 1	
Deduct/Reason	○ 2	○ 2	○ 1
Describe a Procedure	○ 5	○ 1	○ 1
Describe a Sequence or Process	○ 4	○ 2	○ 1
Describe a State or Position	○ 7	○ 2	○ 4
Describe an Action in Progress	○ 7	○ 4	○ 1
Elaborate	○ 5	○ 3	○ 1
Explain	○ 9	○ 5	○ 5
Express Needs or Wishes		○ 1	○ 1
Express Opinion	○ 4	○ 2	○ 4
Give Advice / Suggest	○ 11	○ 4	○ 2
Give or Deny Approval or Permission			
Give an Order			
Offer Assistance / Assist			○ 1
Predict			
Provide Information about the Past	○ 4	○ 4	○ 1
Provide Information Generally or about the Present	○ 3	○ 7	○ 3
Reassure / Encourage	○ 2	○ 1	○ 3
Request Action			

Request Information	○ 2		
Request Repetition	○ 1	○ 5	○ 6
Speculate about the Past	○ 2	○ 1	
Speculate Generally or about the Present	○ 6		○ 3
Speculate about the Future			○ 1
Stage	○ 4	○ 3	○ 1
State Possible Consequences	○ 5	○ 1	○ 1
State Preferences or Likes	○ 1		
Summarise & Relay	○ 11	○ 10	○ 11
Warn			
(TOTAL)	(105)	(72)	(65)

Conclusions

The data gathered from application of the TEA OCs to the three test transcripts suggests that a wide variety of appropriate language functions are elicited by TEA across proficiency levels. The checklists also suggest that candidates are able to respond with the appropriate informational and interactional functions in each part of the test:

- candidates of all levels conveyed information in Part 1
- in Part 2, they summarised, checked, asked questions and gave advice
- and in Part 3 candidates described, explained, gave opinions and re-assured.

As expected, certain functions were more prevalent at particular levels:

- the higher level candidate used a greater number and variety of functions, including those considered more complex such as speculating and stating possible consequences
- the two lower-level candidates needed to check their understanding and requested repetition more
- the lowest level candidate expressed difficulty.

Several language functions were not evident in these three test transcripts: *Ask for Help*, *Give or Deny Approval or Permission*, *Give an Order*, *Predict*, *Request Action*, and *Warn*. Of these:

- *Give or Deny Approval or Permission*, *Give an Order*, *Request Action*, and *Warn* are functions rarely elicited by TEA and the following points are pertinent:
 - Language associated with these functions is frequently elicited during Part 2A but are semi-directly elicited
 - Direct elicitation of these language functions typically results in procedural or phraseological language production, non-assessable and, therefore, inappropriate to the testing context

- The TEA OC has been designed to reflect ICAO's list of *Communicative Functions*: to remove these functions from the TEA OC would appear unethical.
- *Ask for Help* is sometimes elicited in TEA tests in which the candidate asks the interlocutor for help in understanding the instructions or the test questions.
- *Predict* is a function elicited in TEA tests but it is less common in oral testing, generally, than some might believe. The act of predicting relies on some underlying knowledge or expertise and is linked to describing expected or intended events. It is difficult to elicit examples of prediction. Questions linked to the future frequently elicit responses such as "I'm not sure, but I think..." which is more an act of expressing opinion or speculating than predicting, since prediction is considered foretelling with precision of calculation. Candidates are unlikely to predict with strong certainty when they do not know what the future holds. In the three tests analysed here, although the candidates did not actively 'predict', some evidence of competence of the language of 'predicting' was demonstrated in 2 of the 3 candidates' responses to Recording 4 in Part 2A:
 - Moroccan ATC: *"the take-off is going to be delayed because a passenger is receiving first aid"*
 - Italian Pilot: *"Our take off is going to be late because one passenger is suffering an injury"*
 - Russian ATC: *"delay take off due to passenger err lost, lost passenger".*

Part 2: Language Analysis

To complement the functional analysis of the TEA OCs, it was important to also assess whether the language elicited by TEA is valid to the context. Linguistically, that meant analysing test transcripts for data pertinent to the ICAO documentation listed in 9835:

- Priority Lexical Domains (see APPENDIX D)
- Glossary of Basic and Complex Structures (APPENDIX E)

A basic qualitative analysis of whether TEA's content is relevant to the context can be conducted by finding answers to the following questions:

1. *In terms of vocabulary, are a range of the features listed in the Priority Lexical Domains elicited?*
2. *In terms of grammatical structures, does TEA elicit a range of the structures and features listed in 9835?*

A - Lexical Domains

Analysis of the *Moroccan ATC* test transcript was conducted to assess how well TEA was eliciting language within the Priority Lexical Domains. The *Moroccan ATC* test transcript was chosen since the candidate received Level 6 and the utterances elicited therefore demonstrate potential elicitation content of TEA at the higher end of language proficiency.

Table 2 below displays the range and relevance of the Moroccan candidate's utterances to the list of domains provided by ICAO. The full transcription can be viewed in APPENDIX B.

Table 2 – Analysis of priority lexical domains referenced in Moroccan ATC transcript

Event/Domain	Reference?	Examples Elicited
Activities on the field	yes	"The controller informs the pilot that the runway at destination is closed (0.3) because they don't have runway clearance they have problems with runway clearance"
Administrative problems	yes	"what I don't like about my job actually is err the schedules of shifts. We work two days and we have three days off and during the two days of work the hours are err er they don't take into consideration rush hours for example if I work the morning from eight o'clock til two pm I must come back to work from nine pm to twelve in the morn to midnight. I think this is there is not a lot of time to rest to have a rest. And this is maybe it could be dangerous for safety of airplanes"
Aerodrome/airfield environment	yes	"I see an airplane in the tarmac and err I see a pilot who actually is err getting out the plane by the window. It could be a err training because there is a fire fighter truck near the plane" "I see a runway built up on reclaimed land. There is err water from both sides and a lot of ships cruising near the runway"
Aids for VFR flights		
Air shows		
Aircraft breakdowns	yes	"The pilot tries to restart the engine but it doesn't work it's not working" "Check that all devices are working err Did you check all devices are working properly? Did you see what alarm it is?" "You should err restart it if it doesn't work then ask for assistance" "a plane the pressure inside the plane is all the time bigger or higher than the pressure outside the plane so a small hole in the in the fuselage could cause a depressurisation and this could lead to err a disbalance between the pressure inside and outside of the plane. So the plane should make emergency descent in order to balance the pressure between outside and inside"
Aircraft proximity + pilot complaints	yes	"This is the err pilot inquiring information from a controller about the traffic which just crossed their path umm right to left and it was too close according to their point of view and they are err asking information about that"
Airfield facilities/installations		
Airmiss	yes	"the traffic which just crossed their path umm right to left and it was too close"
Approach delays		
ATC systems	yes	"in the past the controllers didn't have a lot of technology that enabled them to accomplish their task, for example they (0.2) they couldn't use devices such as a RADAR and err now"

		there is a lot of new technologies that can help the controller. For example there is some devices that reduces the communications between controller and pilots the information you need or the instruction you are to give is just one click away so we don't need to talk a lot"
Belly landing		
Bird risk/hazard		
Bomb threat/alert/scare		
Cargo problems/dangerous goods		
Change in flight plan		
Collisions	yes	"This is the err pilot inquiring information from a controller about the traffic which just crossed their path umm right to left and it was too close according to their point of view and they are err asking information about that"
Fire	yes	"the pilot's reporting that they are evacuating 'cause of smoke and he's giving instruction to call the fire brigade." "there is a fire fighter truck near the plane"
Ground movement incidents		
Ground services	yes	"instruction to call the fire brigade." "You should call the security" "a crane trying to to err (0.2) get this plane out of water" "there are a lot of rescuers near the seashore trying to rescue passengers"
Health problems	yes	"a passenger is receiving first aid" "They have a passenger on board with heart problems" "Could you check if he's breathing? Could you check could you check his heart beats? Try to do mouth to mouth breathing if possible" "It could err lead to injuries or broken bones" "they should read the instructions and they should breathe through this err oxygen mask until the pilot announces that the emergency is over"
Incidents on landing	yes	"The fin is missing so maybe it was a crash or they missed their landing"
Industrial action		
Lack of fuel	yes	"The controller informs the pilot about an airport eight miles from his current position and he he asks him if he has enough fuel"
Missed approach		
Misunderstandings	yes	"They have radio interference and they can't hear the message so she asked the pilot maybe she is a controller she asked the pilot to repeat the message"

Parachute jumping/dropping activity		
Passenger behaviour + unlawful interference	yes	<p>“I were you I would try to listen to her and try to find out what is the problem”</p> <p>“turbulence is the most is the thing that people are afraid of cause err most of the time people are frightened and they swear never to fly again on board a plane”</p>
Pilot not familiar with airfield		
Pilot’s temporary disability		
Problems linked to flight plan		
Procedures	yes	<p>“The pilot is err supervising this err procedure from his window ‘cause he must be the last one to leave the plane”</p> <p>“when a depressurisation occurs, a pilot (0.2) doesn’t need a clearance from the controller. He wouldn’t inform you if you are a controller. He takes immediate action. Immediate action is to descend immediately. Maybe if he has time he will squawk squawk it means that he select a certain code for controller if they are using radar to inform them that they have emergency. And then he will start descent. And when emergency when is over then he will inform you about what occurred”</p>
Request to relay		
Re-routing/diversion	yes	<p>“The controller informs the pilot about an airport eight miles from his current position and he he asks him if he has enough fuel”</p> <p>“The controller informs the pilot that the runway at destination is closed (0.3) because they don’t have runway clearance they have problems with runway clearance”</p>
Special conditions on arrival		
Special flights		
Take-off incidents	yes	“He’s reporting that the take-off is going to be delayed because a passenger is receiving first aid”
Unauthorized manoeuvres		
VFR flights lost/in difficulty	yes	“They have the aerodrome in sight and they can continue visually.”
VIP flights		
Weather/MET problems	yes	<p>“there is a thunderstorm ahead and they need to change course to to eastwards”</p> <p>“maybe there is bad weather it’s not clear but err maybe due to bad weather this plane had crashed”</p> <p>“if they are flying over an area where there is a lot of err rain they might be afraid of turbulence. I think turbulence is the most is the thing that people are afraid of”</p> <p>“beside turbulence there is also err (0.2) storms thunderstorm sandstorm all these could lead the plane to stall maybe or to crash”</p>

Conclusions

It can be seen that this test elicited utterances directly relevant to 20 of the 41 lexical domains listed in 9835. In some cases (*Aircraft breakdowns, Health problems, Weather/MET problems, Ground services*) there were multiple utterances relevant to the theme. In terms of content validity, the data is positive from three points of view:

- A single version of TEA manages to elicit a wide range of vocabulary pertinent to a variety of aviation themes.
- Not every theme is focussed on during a single TEA test i.e. the test is not prescriptive and candidates cannot guess what will be included in each test. Assuming that test versions vary considerably – see **Report 08 - Item Development & Version Content** for more information – the test content would not only seem valid but also more reliable than if test content were fixed since candidates need to demonstrate proficiency in using a range of vocabulary.
- Within key domains, a range of relevant vocabulary is elicited. For example, the following terms were elicited under the ‘Health problems’ domain: “receiving first aid”, “heart problems”, breathing” “check his heart beats”, “mouth to mouth breathing” “injuries or broken bones”, “breathe through this err oxygen mask”.

B - Basic and Complex Structures

To assess whether TEA elicits a range of the structures and grammatical features listed in 9835, the candidate utterances from the three sample test transcripts were analysed and recorded in Table 3 below. No judgement is made as to the quality of the language elicited, simply that the tests elicited structures and features relevant to categories as described by the *Glossary of Basic and Complex Structures* in 9835.

(The candidates received identical test versions. The three candidates were at three distinct proficiency levels in the following order from highest to lowest level: Moroccan ATC, Italian Pilot, and Russian ATC. The transcriptions can be viewed in APPENDIX B.)

Table 3 – Analysis of language elicited in 3 TEA tests against 9835’s Glossary of Basic and Complex Structures

Basic structures	Moroccan ATC (Level 6)	Italian pilot (Level 4)	Russian ATC (Level 3)
Articles	• a growing number of planes • the information	a good programmer	a plane in the water
Adverbs of frequency		very often	
Comparison of adjectives	the biggest airport	the safer way	
Discourse markers	• since my childhood • they’re actually sliding	at present	• after shift • in past
Modal verbs	There must be someone who controls	you have to call the police	I can see

	<i>their movements</i>		
Numbers	<i>at least three years</i>	<i>in three years I got the license</i>	<i>I learn four years in academy</i>
Passive voice	<i>XXXXX is known in XXXXX because there is situated the biggest airport in XXXXX</i>		
Position of objects	<i>The controller informs the pilot</i>	<i>we are trained for that situation, for most of them but of course not for every kind of emergency situation</i>	<i>doctor see on me</i>
Question words	<i>Could you... / Do you... / Did you...</i>	<ul style="list-style-type: none"> • <i>how much time we have before to umm close the door?</i> • <i>what kind of alarm?</i> 	<ul style="list-style-type: none"> • <i>What happened with passenger?</i> • <i>What do you need?</i> • <i>Do you need...</i>
Relative pronouns	<ul style="list-style-type: none"> • <i>which is XXXXX airport</i> • <i>someone who controls their movements</i> 	<i>to find who take the bags</i>	
(Tenses) Present simple	<i>I work there as a first controller</i>	<i>he is unconscious</i>	<i>it's very difficult</i>
(Tenses) Present continuous	<i>depending on which area you are working for</i>	<ul style="list-style-type: none"> • <i>that is the main thing I am looking for</i> • <i>they are cleaning the runway</i> 	<ul style="list-style-type: none"> • <i>he evacuating due to smoke</i> • <i>it lifting from water</i>
(Tenses) Past simple	<i>in the past the controllers didn't have a lot of technology</i>	<i>I thought why not try</i>	<i>I err studied err work ATC err one year six months ago</i>
(Tenses) Past continuous			
(Tenses) Present perfect simple	<i>I've been a controller since 2002</i>	<i>it's changed</i>	<i>it's happened</i>
(Tenses) Present perfect continuous			
Simple future (will)	<i>he will inform you about what occurred</i>	<i>the solution will go alone</i>	<i>I call emergency</i>
Going to	<i>the take-off is going to be delayed</i>	<i>is going to be late</i>	
There + to be	<ul style="list-style-type: none"> • <i>there is a growing number of planes</i> • <i>there are a lot of rescuers</i> 	<i>in one picture there is a 747 floating</i>	
Complex structures			
Adjectives	<ul style="list-style-type: none"> • <i>people are afraid of</i> • <i>I was fascinated</i> • <i>a growing number of planes</i> 	<ul style="list-style-type: none"> • <i>too close</i> • <i>we are trained for that</i> • <i>it could be dangerous</i> • <i>the aeroplane is pressurised</i> 	<ul style="list-style-type: none"> • <i>very big intensive air traffic</i> • <i>runway is blocked</i> • <i>very dangerous</i>
Adverbs and conjunctions	<ul style="list-style-type: none"> • <i>this err number is increasing steadily</i> • <i>Personally</i> • <i>they should breathe through this err oxygen mask until the pilot announces that the emergency is over</i> • <i>the plane should make emergency</i> 	<i>a few hours ago</i>	

	<i>descent in order to balance the pressure</i>		
Clauses	<i>according to what's written here</i>	<i>block all the gate to find who take the bags</i>	
Conditionals	<i>even if you have a certificate it doesn't mean you can start working</i>	<i>we can't understand if it's just happened or not</i>	
Discourse markers	<i>beside(s) turbulence there is also</i>	<ul style="list-style-type: none"> • <i>in my opinion</i> • <i>so in any case</i> 	
Infinitives and gerunds	<i>I think at least three years is enough to start working</i>	<i>I think flying is the safer way to travel</i>	
Modals	<i>Maybe if he has time he will squawk</i>	<i>we can't understand if it has just happened or not</i>	
Nouns	<ul style="list-style-type: none"> • <i>rush hour</i> • <i>technologic help</i> 	<ul style="list-style-type: none"> • <i>a floating platform</i> • <i>a technical emergency situation</i> 	<ul style="list-style-type: none"> • <i>training operation</i> • <i>fire car</i>
Passive voice	<i>according to what's written here</i>		
Phrasal verbs	<ul style="list-style-type: none"> • <i>get this plane out of</i> • <i>they don't take into consideration</i> 	<i>he is taking the plane out of the water</i>	
Quantifiers	<ul style="list-style-type: none"> • <i>a lot of rescuers</i> • <i>enough fuel</i> 	<ul style="list-style-type: none"> • <i>any medicine</i> • <i>enough fuel</i> • <i>every kind of situation</i> 	<i>many people</i>
Questions (inc. Reporting questions)	<i>she asked the pilot to repeat the message</i>	<i>he asking why, what's happening</i>	<i>he question what the problem</i>
Reflexive pronouns	<ul style="list-style-type: none"> • <i>he must be the last one to leave the plane</i> • <i>controllers didn't have a lot of technology that enabled them to accomplish their task</i> 	<ul style="list-style-type: none"> • <i>in the first one</i> • <i>in the other one</i> 	
Reported speech	<i>the pilot's reporting that they are evacuating cause of smoke and he's giving instruction to call the fire brigade</i>	<i>they request emergency descent</i>	<i>pilot say he evacuating due to smoke</i>
(Tenses) Past Perfect			
(Tenses) Past perfect continuous			
(Tenses) Present continuous (future)			
(Tenses) Future continuous			
(Tenses) Future perfect			
(Tenses) The future seen from the past			

Conclusions

It can be seen from Table 3 that TEA can potentially elicit many of the suggested grammatical features suggested as relevant by 9835. At all levels, the language produced appears appropriate to the testing context and for assessment. While it was not expected to show that TEA elicits language under every category, it is evident from the range of language elicited from the Level 6 candidate that the potential for adequate and appropriate elicitation during TEA is in place. It is clear too that complex tenses for talking about the past and the future are not elicited in these cases and consideration of how appropriate such linguistic structures are to aviation communication may be necessary. Nevertheless, a study such as this helps to influence future item-writing by, for example, suggesting that items which are more likely to elicit narrative tenses and adverbs of frequency may be appropriate to introduce. At the lower levels, TEA elicited language from the Russian ATC that, though error-laden, demonstrated his language proficiency within most of the ‘basic structures’ categories e.g. in eliciting “*Be careful, you’re number one to land and I call emergency*”, his (in)ability with the ‘Simple future (will)’ is elicited.

Summary

The data gathered from application of the TEA OCs and from linguistic analysis of the three test transcripts suggests that a wide variety of appropriate language functions, vocabulary and structures are elicited by TEA across proficiency levels. Although no concrete judgment can be made as to the content validity of any test, the data gathered from three example tests and analysed here suggests that TEA’s content is valid to the testing of plain English in an aviation context as described by 9835.

Reference

Fulcher, G. & F. Davidson. (2010). *Language Testing and Assessment*. Routledge: New York

APPENDIX A – The TEA Observational Checklist – List of Language Functions

1	Apologise / Express Difficulty or a Concern	20	Give or Deny Approval or Permission
2	Ask about Needs or Intentions	21	Give an Order
3	Ask for Information	22	Offer Assistance / Assist
4	Ask for Help	23	Predict
5	Check Clarify Confirm	24	Provide Information about the Past
6	Compare States	25	Provide Information Generally or about the Present
7	Compare Times	26	Reassure / Encourage
8	Correct	27	Request Action
9	Declare Non-understanding	28	Request Information
10	Deduct/Reason	29	Request Repetition
11	Describe a Procedure	30	Speculate about the Past
12	Describe a Sequence or Process	31	Speculate Generally or about the Present
13	Describe a State or Position	32	Speculate about the Future
14	Describe an Action in Progress	33	Stage (set context of next utterance; verbalise a thought process)
15	Elaborate (giving fuller details on or modify an assertion)	34	State Possible Consequences
16	Explain	35	State Preferences or Likes
17	Express Needs or Wishes	36	Summarise & Relay (reword or paraphrase; readback)
18	Express Opinion	37	Warn
19	Give Advice / Suggest		

APPENDIX B – Transcripts of 3 TEA Tests (introduction & instructions omitted) with Mapping of Language Functions from TEA OC

Ex = Examiner
Ca = Candidate
REC = Recording
= unintelligible
(0.3) = 3 second pause
XXX = confidential information
? = intonation implied question form

Moroccan ATC

Ex Now in this first part I'd like to ask you some questions about yourself. Could you tell me about your job?

Ca I am air traffic controller, en route controller, I work in the XXXXX area control centre I've been a controller since 2002 and errr I work there as a first controller, radar controller.

Comment [BR1]: Provide Information Generally or about the Present

Ex Can you describe what you do when you're working?

Ca Yes my main task is to make spacing between aircraft, whether they are depart in departure, or err closing level, or making sequency for arrivals. We must also make spacing between aircraft who are in transit and also err help err departures to get to their cruising flight level and also make sequency for arrivals for a smooth landing for every arrival

Comment [BR2]: Provide Information Generally or about the Present

Comment [BR3]: Describe a Procedure

Ex Ok thank you. Why did you choose to be an air traffic controller?

Ca Ah, I grew up in a city called XXXXX near XXXXX. XXXX is known in XXXXX because there is situated the biggest airport in XXXXX which is XXXXX airport. So since my childhood I was fascinated with this field of aviation and I err wanted to build a career in this field of aviation and the opportunity went on later and so I decided to become air traffic controller. I seized the occasion.

Comment [BR4]: Provide Information about the Past

Comment [BR5]: Describe a Sequence or Process

Comment [BR6]: Elaborate

Ex Ok Thank you. Is an air traffic controller's job important?

Ca Yes it is, because err planes can't can never fly anyhow. There must be someone who controls their movements and err there is a growing number of planes nowadays errrr this err number is increasing steadily and it would be a mess if there is no one who controls the movements of the planes. Err so it is an important job to help people travel err safely to their destinations.

Comment [BR7]: Explain

Comment [BR8]: Describe an Action in Progress

Comment [BR9]: Provide Information Generally or about the Present

Ex Thank you. What's the difference between the role of an air traffic controller today compared to the past?

Ca Yes uh in the past the controllers didn't have a lot of technology that enabled them to accomplish their task, for example they (0.2) they couldn't use devices such as a RADAR and err now there is a lot of new technologies that can help the controller. For example there is some devices that reduces the communications between controller and pilots the information you need or the instruction you are to give is just one click away so we don't need to talk a lot and to errr now it becomes maybe more more comfortable for the controller as in the past because in the past they didn't have a lot of help I mean technologic help.

Ex OK thank you. And how much training's necessary to become an air traffic controller?

Ca Personally I think at least three years is enough to start working because even if you have a certificate it doesn't mean you can start working. Yeh you must train at in a field for about one years to two years depending on which area you are working for an en route controller or an approach controller.

Ex Hmm mm and in the future what would you like to change about what you do?

Ca In the future I would like err I don't what I don't like about my job actually is err the schedules of shifts. We work two days and we have three days off and during the two days of work the hours are err er they don't take into consideration rush hours for example if I work the morning from eight o'clock til two pm I must come back to work from nine pm to twelve in the morn to midnight. I think this is there is not a lot of time to rest to have a rest. And this is maybe it could be dangerous for safety of airplanes.

Ex OK Thank you, now we will look at part two. Now you're going to hear some recordings of international speakers. Firstly you'll hear pilots and controllers talking in non-routine situations. After each recording, tell me the message. All the information is important, umm if you need to hear it again please ask. And you have ten seconds to start speaking, OK?

Ca OK

REC1. The aerodrome is now in sight. We can continue visually.

Ex What was the message?

Ca They have the aerodrome in sight and they can continue visually. Maybe it's err it's err the pilot reporting that.

Ex Thank you

REC2. We are evacuating because of smoke. Call the fire brigade.

Comment [BR10]: Provide Information about the Past

Comment [BR11]: Stage

Comment [BR12]: Compare Times

Comment [BR13]: Elaborate

Comment [BR14]: Explain

Comment [BR15]: Check Clarify Confirm

Comment [BR16]: Compare Times

Comment [BR17]: Express Opinion

Comment [BR18]: Explain

Comment [BR19]: Elaborate

Comment [BR20]: State Preferences or Likes

Comment [BR21]: Describe a Sequence or Process

Comment [BR22]: Stage

Comment [BR23]: Provide Information Generally or about the Present

Comment [BR24]: Express Opinion

Comment [BR25]: State Possible Consequences

Comment [BR26]: Summarise & Relay

Comment [BR27]: Speculate Generally or about the Present

Ex What was the message?

Ca Yes, the pilot's reporting that they are evacuating 'cause of smoke and he's giving instruction to call the fire brigade.

Ex Thank you

REC3. We had radio interference and couldn't hear you. Could you repeat your last message?

Ex What was the message?

Ca They have radio interference and they can't hear the message so she asked the pilot maybe she is a controller she asked the pilot to repeat the message.

Ex Thank you

REC4. Our take-off is going to be delayed because a passenger is receiving first aid.

Ex What was the message?

Ca He's a pilot. He's reporting that the take-off is going to be delayed because a passenger is receiving first aid.

Ex Thank you

REC5. Your destination airport is closed because they're having runway clearance problems.

Ex What's the message?

Ca The controller informs the pilot that the runway at destination is closed (0.3) because they don't have runway clearance they have problems with runway clearance.

Ex Thank you

REC6. The traffic which just crossed our heading left to right was too close. What's happening?

Ex What's the message?

Comment [BR28]: Summarise & Relay

Comment [BR29]: Speculate Generally or about the Present

Comment [BR30]: Summarise & Relay

Comment [BR31]: Provide Information about the Past

Comment [BR32]: Summarise & Relay

Comment [BR33]: Summarise & Relay

Ca This is the err pilot inquiring information from a controller about the traffic which just crossed their path umm right to left and it was too close according to their point of view and they are err asking information about that.

Comment [BR34]: Summarise & Relay

Ex OK thank you

REC7. There is a thunderstorm ahead. You need to turn right to an easterly heading.

Ex What's the message?

Ca The controller gives information to the pilot that there is a thunderstorm ahead and they need to change course to to eastwards.

Comment [BR35]: Summarise & Relay

Ex Thank you

REC8. We've tried to restart the engine but it's not responding.

Ex What was the message?

Ca The pilot tries to restart the engine but it doesn't work it's not working.

Comment [BR36]: Summarise & Relay

Comment [BR37]: Correct

Ex Thank you

REC9. We have got a passenger on board with heart problems. Request emergency descent for priority landing.

Ex What was the message?

Ca They have a passenger on board with heart problems and they are requesting emergency descent for priority of landing.

Comment [BR38]: Summarise & Relay

Ex Thank you

REC10. There's an airport with a tower eight miles south of your position. Do you have enough fuel?

Ex What's the message?

Ca They don't have enough fuel but I didn't get the first part of the message, can you play it again please?

Comment [BR39]: Summarise & Relay

Comment [BR40]: Declare Non-understanding

Comment [BR41]: Request Repetition

Ex Yes I'll play it once more

(recording repeated)

Ca The controller informs the pilot about an airport eight miles from his current position and he asks him if he has enough fuel.

Comment [BR42]: Summarise & Relay

Ex Thank you. Now you'll hear three recordings in more general situations. Listen to the speaker and ask some questions to find out more about the situation. You have ten seconds to respond, if you need to hear it again please ask, OK?

Ca OK

REC1. We have a problem.... Some of the passengers are missing.

Ex Ask questions

Ca Could you ask anyone if err they know that passenger? Do you have a list of the passengers?

Comment [BR43]: Give Advice / Suggest

Comment [BR44]: Ask for Information

Ex Thank you

REC2. We have a situation... The passenger's not conscious.

Ex Ask questions

Ca Could you check if he's breathing? Could you check could you check his heart beats? Try to do mouth to mouth breathing if possible.

Comment [BR45]: Request Information

Comment [BR46]: Request Information

Comment [BR47]: Give Advice / Suggest

Ex Thank you

REC3. We have a problem.... An alarm has just started.

Ex Ask questions.

Ca Check that all devices are working err Did you check all devices are working properly? Did you see what alarm it is?

Comment [BR48]: Give Advice / Suggest

Comment [BR49]: Ask for Information

Comment [BR50]: Ask for Information

Ex Thank you. Umm you'll now hear three different situations. This time, listen to the situation and give the speaker some advice. You have ten seconds to respond, if you need to hear it again please ask, OK?

Ca OK

REC1. We need some help.... We have a woman here who is very upset.

Ex Give advice

Ca If I were you I would try to listen to her and try to find out what is the problem

Ex Thank you

REC2. We need some help.... We can't get the computer to work.

Ex Give advice

Ca You should err restart it if it doesn't work then ask for assistance.

Ex Thank you

REC3. We need some help.... A man's bags have been stolen.

Ex Give advice

Ca You should call the security, or try to ask the passengers if anyone of them have seen this er his bag.

Ex Thank you. Now we'll move on to part three. Now I'm going to show you two pictures which I'd like you to describe and compare with as much information as possible. Please speak about them for a few moments. (0.15) OK you have one minute to speak, please start now.

Ca In the first picture I see an airplane in the tarmac and err I see a pilot who actually is err getting out the plane by the window. It could be a err training because there is a fire fighter truck near the plane. And the crew members they are all watching the procedures. I think this could be a plan it's not an emergency it's just a training. And in the second picture I see a flight, err sorry I see a plane an Air France plane Boeing triple seven according to what's written here. And there is fire fire fighters. The passengers are evacuating the plane, they're actually sliding. This could be an emergency situation. The pilot is err supervising this err procedure from his window 'cause he must be the last one to leave the plane.

Ex OK thank you. And now I'm going to show you two more pictures which I'd like you to describe and compare with as much information as possible. Again, please think about them for a few moments. (0.15) OK you have one minute to speak, please start now.

Comment [BR51]: Give Advice / Suggest

Comment [BR52]: Give Advice / Suggest

Comment [BR53]: Give Advice / Suggest

Comment [BR54]: Give Advice / Suggest

Comment [BR55]: Give Advice / Suggest

Comment [BR56]: Describe a State or Position

Comment [BR57]: Describe an Action in Progress

Comment [BR58]:
Deduct/Reason

Comment [BR59]: Explain

Comment [BR60]: Describe an Action in Progress

Comment [BR61]: Express Opinion

Comment [BR62]: Correct

Comment [BR63]: Describe a State or Position

Comment [BR64]: Describe a State or Position

Comment [BR65]: Describe an Action in Progress

Comment [BR66]: Speculate Generally or about the Present

Comment [BR67]: Describe an Action in Progress

Comment [BR68]: Explain

Ca In the first picture I see a runway built up on reclaimed land. There is err water from both sides and a lot of ships cruising near the runway. And err I see a Boeing 747 and a crane trying to to err (0.2) get this plane out of water. The fin is missing so maybe it was a crash or they missed their landing. In the second picture I see also a Boeing 747 near the seashore. It was err a crash maybe and there are a lot of rescuers near the seashore trying to rescue passengers and in the second picture maybe there is bad weather it's not clear but err maybe due to bad weather this plane had crashed.

Ex That's fine, thank you. Now I'd like to discuss some more general questions related to emergencies and safety. Err lets consider first of all, emergency situation. When is a situation an emergency situation?

Ca It is an emergency situation when there is er when somebody needs an immediate help er it could be somebody on board the plane or somebody inside (0.2) err it's an emergency because err that people or a group of people might need medical help or any kind of assistance and immediately and err it's err something that could be dangerous.

Ex And which emergency situations should passengers be most worried about?

Ca It depends on the area flown. For example if they are flying over an area where there is a lot of err rain they might be afraid of turbulence. I think turbulence is the most is the thing that people are afraid of cause err most of the time people are frightened and they swear never to fly again on board a plane

Ex Because of turbulence?

Ca Yes it's not comfortable. It could err lead to injuries or broken bones and err beside turbulence there is also err (0.2) storms thunderstorm sandstorm all these could lead the plane to stall maybe or to crash.

Ex Ok so all of these could be serious.

Ca Yes, all of these.

Ex People hear a lot more about emergency situations on television these days. What would you say to people who are worried about flying?

Ca I'd recommend to them to not really trust the press and trust the media because they are not working on in the field of aviation and err the press and the media are just looking for entertainment and for things that look more exciting. So they try to show things worse than they are actually. I recommend for people that plane or air travel is the safest way for travelling this is not my words this is statistics and it's err valid throughout the world. I recommend for them to never get afraid of the planes.

Ex And I shouldn't worry about flying?

Ca No you should never worry.

Comment [BR69]: Describe a State or Position

Comment [BR70]: Describe a State or Position

Comment [BR71]: Describe an Action in Progress

Comment [BR72]:
Deduct/Reason

Comment [BR73]: Describe a State or Position

Comment [BR74]: Speculate about the Past

Comment [BR75]: Describe an Action in Progress

Comment [BR76]: Speculate about the Past

Comment [BR77]: Explain

Comment [BR78]: Elaborate

Comment [BR79]: Speculate Generally or about the Present

Comment [BR80]: State Possible Consequences

Comment [BR81]: Stage

Comment [BR82]: State Possible Consequences

Comment [BR83]: Express Opinion

Comment [BR84]: Explain

Comment [BR85]: State Possible Consequences

Comment [BR86]: Give Advice / Suggest

Comment [BR87]: Elaborate

Comment [BR88]: Explain

Comment [BR89]: Reassure / Encourage

Comment [BR90]: Give Advice / Suggest

Comment [BR91]: Reassure / Encourage

Ex And lets now consider erm depressurisation. What can cause depressurisation?

Ca You know a plane the pressure inside the plane is all the time bigger or higher than the pressure outside the plane so a small hole in the in the fuselage could cause a depressurisation and this could lead to err a disbalance between the pressure inside and outside of the plane. So the plane should make emergency descent in order to balance the pressure between outside and inside.

Ex OK And how is depressurisation – maybe you’ve mentioned this slightly – but how is depressurisation different to other emergency situations?

Ca Because when a depressurisation occurs, a pilot (0.2) doesn’t need a clearance from the controller. He wouldn’t inform you if you are a controller. He takes immediate action. Immediate action is to descend immediately. Maybe if he has time he will squawk squawk it means that he select a certain code for controller if they are using radar to inform them that they have emergency. And then he will start descent. And when emergency when is over then he will inform you about what occurred.

Ex But he wouldn’t use the radio transmission initially?

Ca Without use of Radar maybe he will just err make a general call informing all the planes flying nearby saying for example I’ll give you an example mayday mayday mayday this is flight den den den the type of aircraft We are making an emergency descent, we are now leaving flight level descending flight level. Caution. Caution to those.. to those...

Ex Ok Thank you. What should passengers do in the event of depressurisation?

Ca In the event of before every flight the flight attendants they explain to passengers in case of err an emergency how should they err put the mask of oxygen how should they wear special wears if they are flying over the ocean over the sea. So they should read the instructions and they should breathe through this err oxygen mask until the pilot announces that the emergency is over.

Ex Thank you very much, that’s the end of the test.
Italian Pilot

Ex Now in this first part I’d like to ask you some questions about yourself. Could you tell me about your job?

Ca Yeh. I am a pilot but at present I am unemployment. I worked with XXXX until one years ago when umm umm he err when I was made redundant due to global crisis and umm problem between labour and staff probably.

Ex OK can you describe what you do when you are working?

Comment [BR92]: Stage

Comment [BR93]: Compare States

Comment [BR94]: Describe a State or Position

Comment [BR95]: State Possible Consequences

Comment [BR96]: Describe a Procedure

Comment [BR97]: Explain

Comment [BR98]: Describe a Procedure

Comment [BR99]: Speculate Generally or about the Present

Comment [BR100]: Describe a Procedure

Comment [BR101]: Describe a Sequence or Process

Comment [BR102]: Speculate Generally or about the Present

Comment [BR103]: Describe a Sequence or Process

Comment [BR104]: Describe a Procedure

Comment [BR105]: Give Advice / Suggest

Comment [BR106]: Provide Information Generally or about the Present

Comment [BR107]: Provide Information about the Past

Ca Yeh umm as a pilot I was captain on the umm 767 and erm I used to travel around the world mostly in the North America and umm on the other side China and Japan.

Comment [BR108]: Provide Information about the Past

Ex Ok thank you. Why did you choose to be a pilot?

Ca Well because at initially it was only a dream but err err I said I I thought why not try and at about 22/23 years old I I made a school, a training to get a pilot in 3 years I got the licence then I tried to I applied in XXXX and I got the contract.

Comment [BR109]: Stage

Comment [BR110]: Describe a Sequence or Process

Ex Is a pilot's job important?

Ca I think it's important like other jobs no more no less.

Comment [BR111]: Express Opinion

Ex Why?

Ca Because err its important like a teacher it's important like a waiter it's important every job are important.

Comment [BR112]: Explain

Ex What is the difference between the role of a pilot today compared to the past?

Ca Well it's changed in the way how we work I mean in the past it was important how to handle the plane physically the piloting the plane. Now the computer take the most of the work and now a good pilot is a good programmer. Then it's important like err the old umm way for example to know meteorological condition and the umm the umm environment of the ##### aircraft but it's changed umm most of them how to piloting.

Comment [BR113]: Stage

Comment [BR114]: Compare Times

Comment [BR115]: Provide Information about the Past

Comment [BR116]: Provide Information Generally or about the Present

Comment [BR117]: Compare Times

Comment [BR118]: Describe a Sequence or Process

Ex How much training is necessary to become a pilot?

Ca Umm around three four years to get a licence and then another year in a company to to learn the rules of the company.

Ex Could you tell me more?

Ca Err Yeh for example to know how procedure that company apply in case of err bad weather, err each company has err an, a particular procedure. And um to learn to umm transfer between theory to practik it takes 1 years more or less.

Comment [BR119]: Elaborate

Ex Ok. In the future what would you like to change about what you do?

Comment [BR120]: Stage

Ca First of all I hope to find a job again. Umm (0.2) that is the main umm main umm thing that I am looking for.

Comment [BR121]: Express Needs or Wishes

Comment [BR122]: Describe an Action in Progress

Ex OK thank you. Now we will look at part two. Now you're going to hear some recordings of international speakers. Firstly you'll hear pilots and controllers talking in non-routine situations. After each recording, tell me the message. All the information is important, if you need to hear it again please ask. And you have ten seconds to start speaking, Ok?

Ca Yeh

REC1. The aerodrome is now in sight. We can continue visually.

Ex What was the message?

Ca The aerodrome is in sight, we can continue visually.

REC2. We are evacuating because of smoke. Call the fire brigade.

Ex What was the message?

Ca We are evacuating because of smoke. Call the fire brigade.

REC3. We had radio interference and couldn't hear you. Could you repeat your last message?

Ex What was the message?

Ca We had the radio interference. Could you repeat the last message.

REC4. Our take-off is going to be delayed because a passenger is receiving some first aid.

Ex What was the message?

Ca Our take off is going to be late because one passenger is suffering an injury.

REC5. Your destination airport is closed because they're having runway clearance problems.

Ex What's the message?

Ca One more time please.

Comment [BR123]:
Summarise & Relay

Comment [BR124]:
Summarise & Relay

Comment [BR125]:
Summarise & Relay

Comment [BR126]:
Summarise & Relay

Comment [BR127]: Request Repetition

(Recording played again)

Ca Destination airport is closed because they are cleaning the runway.

REC6. The traffic which just crossed our heading left to right was too close. What's happening?

Ex What's the message?

Ca The traffic that cross us in front of us from left to right it was too close. He asking why, what's happening.

REC7. There is a thunderstorm ahead. You need to turn right to an easterly heading.

Ex What's the message?

Ca One more time please?

(Recording played again)

Ca There is a storm ##### in front of us, we need to turn right to avoid.

REC8. We've tried to restart the engine but it's not responding.

Ex What was the message?

Ca ### to restart the engine but it doesn't respond.

REC9. We have got a passenger on board with heart problems. Request emergency descent for priority landing.

Ex What was the message?

Ca Could you replay again please?

(Recording played again)

Ca They have a passengers on board with problem with heart problem, they request emergency descent and priority to land.

Comment [BR128]:
Summarise & Relay

Comment [BR129]:
Summarise & Relay

Comment [BR130]: Request Repetition

Comment [BR131]:
Summarise & Relay

Comment [BR132]:
Summarise & Relay

Comment [BR133]: Request Repetition

Comment [BR134]:
Summarise & Relay

REC10. There's an airport with a tower eight miles south of your position. Do you have enough fuel?

Ex What was the message?

Ca One more time please?

Comment [BR135]: Request Repetition

(Recording played again)

Ca Err umm exactly I don't know. There is an airport umm as alternate and he asking if he has enough fuel.

Comment [BR136]: Declare Non-understanding

Comment [BR137]:
Summarise & Relay

Ex Thank you. Now you'll hear three recordings in more general situations. Listen to the speaker and ask some questions to find out more about the situation. You have ten seconds to respond, if you need to hear it again please ask, OK?

REC1. We have a problem.... Some of the passengers are missing.

Ex Ask questions

Ca Yeh. Of course are they on the ground? Yeh. And umm is the passenger with hand err with luggage or not? And umm how much time we have before to umm to close the door?

Comment [BR138]: Ask for Information

Comment [BR139]: Ask for Information

Comment [BR140]: Ask for Information

REC2. We have a situation... The passenger's not conscious.

Ex Ask questions

Ca First of all we ask if we have a doctor on board and umm because umm he is unconscious so umm it's better to look in the handbag if there is any medicine or something that can helps the passengers.

Comment [BR141]: Describe a Procedure

Comment [BR142]: Give Advice / Suggest

REC3. We have a problem.... An alarm has just started.

Ex Ask questions.

Ca Could you repeat please?

Comment [BR143]: Request Repetition

(Recording played again)

Ca Err what kind of alarm? Is it a siren? A fire alarm?

Comment [BR144]: Ask for Information

Comment [BR145]: Ask for Information

Ex Thank you. You'll now hear three different situations. This time, listen to the situation and give the speaker some advice. You have ten seconds to respond, if you need to hear it again please ask, OK?

REC1. We need some help.... We have a woman here who is very upset.

Ex Give advice

Ca Mmm If I were you I I asked to the passengers why is so upset. And it's if it is our fault or err some the the cause is not is not umm I mean if we can do something to help him.

Comment [BR146]: Give Advice / Suggest

Comment [BR147]: Correct

REC2. We need some help.... We can't get the computer to work.

Ex Give advice

Ca What kind of the computer are you -

Comment [BR148]: Ask for Information

Ex No. give advice to the speaker.

Ca Ah. Excuse me. If I were you I switch off and on again the computer to try. Usually the computer ##### work.

Comment [BR149]: Give Advice / Suggest

Comment [BR150]: Explain

REC3. We need some help.... A man's bags have been stolen.

Ex Give advice

Ca One more time please.

(Recording played again)

Ca You're - You have to call the police and err to block all the - the gate to find who take the bags.

Comment [BR151]: Give Advice / Suggest

Ex Thank you. Now we'll move on to part three. Now I'm going to show you two pictures which I'd like you to describe and compare with as much detail as possible. Please speak about them for a few moments. Here you are (0.15) OK you have one minute to speak, please start now.

Ca Ok I think both picture are talking about hijack problem. Umm the second one is Air France and the first one I don't know but er I I'm not sure so I don't know. And in the second the the difference between these photo is that in the first one there is a stairs so probably it was possible to err

Comment [BR152]: Compare States

Comment [BR153]: Provide Information
Generally or about the Present

Comment [BR154]: Compare States

for the fire brigade and the police to umm to go near the plane. In the second one there is a slider err err through they are going through the emergency door so probably in this situation they have to rush to as quick as possible. Though I see a probably a pilot trying to escape from the window.

Ex Thank you. That's fine. And now I'm going to show you two more pictures which I'd like you to describe and compare with as much information as possible. Again, please think about them for a few moments. Here you are (0.15) OK you have one minute to speak, please start now.

Ca In both picture in airport near the sea or river with water in winter. In one picture there is a 747 floating in the other one a 747 too they are with the umm umm crane on the platform, a floating platform he is taking the plane out of the water. So in the first picture the accident happened mm few hours ago. In the second one mm I don't its not we can't understand if it's just happened or not. Of course caused by bad weather condition like a surface slippery in both in both cases.

Ex Ok thank you. Now I'd like to discuss some more general questions related to emergencies and safety. Err lets consider first of all, emergency situation. When is a situation an emergency situation?

Ca (0.2) When? When it's not a routine action umm and when happens something that you have to to do something umm in a umm right now you can't wait. The solution will go alone.

Ex So is a non routine situation always an emergency situation?

Ca All emergency situation are non routine situation and erm umm many very often an emergency situation is the result of something wrong I mean we didn't follow the procedure as instructed or umm due to condition outside like weather er bad weather conditions. And umm we are trained for that err situation for most of them but of course not for every kind of emergency situation.

Ex It's not possible?

Ca Not possible.

Ex Ok Thank you. So which emergency situations should passengers be most worried about?

Ca I think err connected with err not technical. I mean in my opinion the worst situation is an hijack where there is where you have to to discuss with a person that you know what what how he is and what are err the intention and erm its much more easier for me for my in my opinion to resolve a technical emergency emergency situation.

Ex So do you mean hijacking is more dangerous because of the language problem or the intention?

Ca Yeh probably the intention more than the language. The intention.

Comment [BR155]: Speculate about the Past

Comment [BR156]: Describe a State or Position

Comment [BR157]: Describe an Action in Progress

Comment [BR158]:
Deduct/Reason

Comment [BR159]: Describe an Action in Progress

Comment [BR160]: Compare States

Comment [BR161]: Describe an Action in Progress

Comment [BR162]: Elaborate

Comment [BR163]:
Deduct/Reason

Comment [BR164]: Explain

Comment [BR165]: Check Confirm Clarify

Comment [BR166]: Describe a State or Position

Comment [BR167]: Provide Information
Generally or about the Present

Comment [BR168]: Elaborate

Comment [BR169]: Provide Information
Generally or about the Present

Comment [BR170]: Provide Information
Generally or about the Present

Comment [BR171]: Express Opinion

Comment [BR172]: Explain

Comment [BR173]: Compare States

Comment [BR174]: Check Clarify Confirm

Ex People hear a lot more about emergency situations on television these days. What would you say to people who are worried about flying?

Ca Erm this the emergency situation in general?

Comment [BR175]: Check Clarify Confirm

Ex Yes

Ca What to say to the people to to yeh..

Comment [BR176]: Check Clarify Confirm

Ex To people who are worried about flying.

Ca That anyway I think flying is the safer way to travel if they have if they must travel there's no other mean safer as the aircraft. So in any case if err I think it's much more safer than travel by car by train by ship by all other kind of travel if they must travel.

Comment [BR177]: Compare States

Ex If they must travel yes. Ok Thank you Now lets talk a little about depressurisation. What can cause depressurisation?

Ca Erm a technical problem of the air conditioning system or a leak in the fuselage or impact on the erm ##### caused by birds.

Comment [BR178]: Provide Information
Generally or about the Present

Ex Why would a bird cause that situation?

Ca Well it's very unusually really yeh. I had a bird strike but first of all it's not at an altitude where you need pressure, usually its about 10 thousand feet no higher. I know that erm I wrote I don't remember where that happens a bird strike at erm about erm 25 24 thousand feet and it could be dangerous at that altitude for pressurisation because at that altitude the aeroplane is pressurised.

Comment [BR179]: Reassure / Encourage

Comment [BR180]: Provide Information about
the Past

Comment [BR181]: Explain

Comment [BR182]: State Possible
Consequences

Ex Thank you very much, that's the end of the test.

Russian ATC

Ex Now in this first part I'd like to ask you some questions about yourself. Could you tell me about your job?

Ca Umm I'm ATC controller. I work a little airport near XXXX. I work on ground. Umm.

Comment [BR183]: Provide Information Generally or about the Present

Ex Ok. Can you describe what you do when you're working?

Ca Umm Can you repeat?

Comment [BR184]: Request Repetition

Ex Yes. Can you describe what you do when you are working?

Ca Sorry. Umm after shift I am go to doctor err on, doctor see on me and give me umm (0.2) umm and give me (0.4) a minute, and give me (0.5) on my job... Sorry! It's difficult.

Comment [BR185]: Apologise / Express Difficulty or a Concern

Comment [BR186]: Describe a Sequence or Process

Ex Ok. Why did you choose to be an Air Traffic Controller?

Ca I err studied err work ATC err one year s-s-six months ago when ago.

Comment [BR187]: Apologise / Express Difficulty or a Concern

Comment [BR188]: Provide Information about the Past

Ex Is an ATC's job important?

Ca Erm yes I think ATC job very important because err controller help pilot err in air on ground because pilot err without controller maybe blind he not see. Er err err occupation? no. He very little see.

Comment [BR189]: Express Opinion

Comment [BR190]: Explain

Comment [BR191]: Elaborate

Ex What is the difference between the role of an Air Traffic Controller today compared to the past?

Ca Difference? (0.2) err I think err in past (0.2) no many flight, no many plane and er now very err very big, in-in- intensive air traffic. And it's very difficult.

Comment [BR192]: Check Clarify Confirm

Comment [BR193]: Compare Times

Ex Ok how much training is necessary to become an Air Traffic Controller?

Ca Err How much... I learn 4 years in academy. And, 4 years.

Comment [BR194]: Stage

Comment [BR195]: Provide Information Generally or about the Present

Ex In the future what would you like to change about what you do?

Ca Future, I change, I don't know maybe (0.4) maybe another err (0.4) another RADAR maybe, another system work, another technology.

Comment [BR196]: Speculate about the Future

Ex OK Thank you, now we will look at part two. Now you're going to hear some recordings of international speakers. Firstly you'll hear pilots and controllers talking in non-routine situations. After each recording, tell me the message. All the information is important, if you need to hear it again please ask. And you have ten seconds to start speaking, OK?

REC1. The aerodrome is now in sight. We can continue visually.

Ex What was the message?

Ca Pilot say aerodrome is not in sight. Err we umm don't err, Can you repeat please.

(Recording played again)

Ca Oh sorry umm aerodrome is in sight and pilot request visual approach.

Ex Ok

REC2. We are evacuating because of smoke. Call the fire brigade.

Ex What was the message?

Ca Err pilot say he evacuating due to smoke and request fire brigade /brigad/

Ex Ok

REC3. We had radio interference and couldn't hear you. Could you repeat your last message?

Ex What was the message?

Ca A pilot say he have trouble with radio and err he err repeat last message, controller.

REC4. Our take-off is going to be delayed because a passenger is receiving some first aid.

Ex What was the message?

Ca Err delay take off due to passenger err lost, lost passenger.

Comment [BR197]:
Summarise & Relay

Comment [BR198]: Request Repetition

Comment [BR199]:
Summarise & Relay

Comment [BR200]:
Summarise & Relay

Comment [BR201]:
Summarise & Relay

Comment [BR202]:
Summarise & Relay

Ex Ok

REC5. Your destination airport is closed because they're having runway clearance problems.

Ex What's the message?

Ca Umm could you repeat?

(Recording played again)

Ca Err aerodrome err destination closed. Due to err runway runway (0.4) runway, is blocked maybe.

Ex Ok

REC6. The traffic which just crossed our heading left to right was too close. What's happening?

Ex What's the message?

Ca Err pilot say traffic cross your course and err he err he c- c- question what the problem.

Ex Ok

REC7. There is a thunderstorm ahead. You need to turn right to an easterly heading.

Ex What's the message?

Ca Repeat please.

(Recording played again)

Ca Umm thunderstorm ahead, pilot request err turn left avoid CB.

Ex Ok

Comment [BR203]: Request Repetition

Comment [BR204]:
Summarise & Relay

Comment [BR205]: Speculate Generally or
about the Present

Comment [BR206]:
Summarise & Relay

Comment [BR207]: Request Repetition

Comment [BR208]:
Summarise & Relay

REC8. We've tried to restart the engine but it's not responding.

Ex What was the message?

Ca Restart engine, err repeat please.

(Recording played again)

Ca I'm sorry I don't know.

Ex Ok

REC9. We have got a passenger on board with heart problems. Request emergency descent for priority landing.

Ex What was the message?

Ca Err pilot say passengers err with heart problem and err request err emergency landing and err ambulance on ground.

Ex Ok

REC10. There's an airport with a tower eight miles south of your position. Do you have enough fuel?

Ex What's the message?

Ca Umm repeat please.

(Recording played again)

Ca Umm controller say pilot he err long distance err at - from airport and he request err how many fuel.

Ex Ok. Now you'll hear three recordings in more general situations. Listen to the speaker and ask some questions to find out more about the situation. You have ten seconds to respond, if you need to hear it again please ask, OK?

Ca Ok.

REC1. We have a problem.... Some of the passengers are missing.

Comment [BR209]:
Summarise & Relay

Comment [BR210]: Request Repetition

Comment [BR211]: Apologise / Express
Difficulty or a Concern

Comment [BR212]:
Summarise & Relay

Comment [BR213]: Request Repetition

Comment [BR214]:
Summarise & Relay

Ex Ask questions

Ca Umm What happened with passenger?

Ex Ok

REC2. We have a situation... The passenger's not conscious.

Ex Ask questions

Ca Err Umm What do you need?

Ex Ok

REC3. We have a problem.... An alarm has just started.

Ex Ask questions.

Ca Umm do you need err (0.2) ATC assistance?

Ex Ok. You'll now hear three different situations. This time, listen to the situation and give the speaker some advice. You have ten seconds to respond, if you need to hear it again please ask, OK?

Ca Ok.

REC1. We need some help.... We have a woman here who is very upset.

Ex Give advice

Ca Oh. Be careful, you're number one to land and I call emergency

REC2. We need some help.... We can't get the computer to work.

Ex Give advice

Comment [BR215]: Ask for Information

Comment [BR216]: Ask about Needs or Intentions

Comment [BR217]: Ask about Needs or Intentions

Comment [BR218]: Reassure / Encourage

Comment [BR219]: Offer Assistance / Assist

Ca Err restart your computer.

Comment [BR220]: Give Advice / Suggest

REC3. We need some help.... A man's bags have been stolen.

Ex Give advice

Ca Oh (0.2) I don't know.

Comment [BR221]: Apologise / Express Difficulty or a Concern

Ex Ok thank you. Now we'll move on to part three. Now I'm going to show you two pictures which I'd like you to describe and compare with as much detail as possible. Please speak about them for a few moments. (0.15) OK you have one minute to speak, please start now.

Ca Err I could see in err this – I can see in this picture err maybe err training err training evacuation and I see err in centre err picture aeroplane and (0.2) and fire fire car. On another picture I can see a plane and evacuation people on a slider slider, err fire crew (0.6)

Comment [BR222]: Correct

Comment [BR223]: Speculate Generally or about the Present

Comment [BR224]: Describe a State or Position

Comment [BR225]: Describe a State or Position

Comment [BR226]: Express Opinion

Ex Ok thank you

Ca I think it's training, it's no no umm it's it's training. I think.

Ex Ok thank you that's fine. And now I'm going to show you two more pictures which I'd like you to describe and compare with as much information as possible. Again, please think about them for a few moments. (0.15) OK you have one minute to speak, please start now.

Ca Err I can see in the picture err in centre picture a plane in the water err he it err lifting lifting from water and another picture err two two plane. He in water umm near plane I can see emergency boat. Umm it's (0.2) happened maybe on first picture err aircraft running from runway and running from runway in water err

Comment [BR227]: Describe a State or Position

Comment [BR228]: Describe an Action in Progress

Comment [BR229]: Describe a State or Position

Comment [BR230]: Deduct/Reason

Ex Thank you. That's fine. Now I'd like to discuss some more general questions related to emergencies and safety. Lets consider first of all, emergency situations. When is a situation an emergency situation?

Ca Err I think emergency situation it's a bird strike err fire engine fire engine and (0.2) loss orientation in air and err I think turbulence.

Comment [BR231]: Provide Information Generally or about the Present

Ex Ok so which emergency situation should passengers be most worried about?

Ca I think err emergency sation – situation it's err (0.2) turbulence because err passengers can punch your head and broken your arm err foot or foot err leg it's very dangerous

Comment [BR232]: Express Opinion

Comment [BR233]: Explain

Ex Ok. People hear a lot more about emergency situations on television these days. What would you say to people who are worried about flying?

Ca Err don't worry.

Comment [BR234]: Reassure / Encourage

Ex (laughs) Why not? Why shouldn't they worry?

Ca Because err (0.3) because err (0.3) many people flight and no no it it many people flight and err err alright it's alright don't err don't fear.

Comment [BR235]: Explain

Ex So flying is a safe way of travelling?

Ca Flying yes it's –yes it's err safety err travelling, yeh.

Comment [BR236]: Express Opinion

Ex And lets go on to talk about depressurisation. What can cause depressurisation?

Ca (0.2)

Ex What can be the main reason for depressurisation?

Ca Ah reason?

Comment [BR237]: Check Confirm Clarify

Ex Hmm mm

Ca I think err (0.2) bird maybe crashed window and depressurisation

Comment [BR238]: Explain

Ex Are there any other causes? Any other reasons?

Ca Another reasons? Another reasons. No maybe (0.2) lightning err err lightning err (0.6) crashed.

Comment [BR239]: Check Confirm Clarify

Ex How is depressurisation different to other emergency situations?

Comment [BR240]: Speculate Generally or about the Present

Ca Different?

Comment [BR241]: Check Confirm Clarify

Ex Yeh. (0.5) So how is it different to turbulence? (0.2) Is it more serious?

Comment [BR242]: State Possible Consequences

Ca Yes it's serious because people not can breathe. Err he need oxygen mask and err controller err and pilot, must request controller immediately descending because err on low altitude it's err no serious no serious.

Comment [BR243]: Express Needs or Wishes

Comment [BR244]: Describe a Procedure

Comment [BR245]: Explain

Ex Hmm mm Ok. What should passengers do in the event of depressurisation?

Ca Err passengers err must err must sit and err (0.2) oxygen mask (0.2) and don't worry.

Ex Don't worry; you've got it all under control. Ok thank you very much, that's the end of the test.

Ca Thank you.

Comment [BR246]: Give Advice / Suggest

Comment [BR247]: Reassure / Encourage

APPENDIX C

From Appendix B of 9835 (2010) *LANGUAGE OF AERONAUTICAL RADIOTELEPHONY COMMUNICATIONS*

PART I: COMMUNICATIVE LANGUAGE FUNCTIONS, EVENTS, DOMAINS AND TASKS ASSOCIATED WITH AVIATION

The communicative language functions compiled here are based on research at the Direction Générale de l'Aviation Civile, France.

C = Controller P = Pilot C/P = Controller or pilot

1. COMMUNICATIVE FUNCTIONS DIRECTED TOWARDS TRIGGERING ACTIONS

1.1 Orders

- Give an order (C)
- Announce compliance with an order (P)
- Give an amended order (C)
- Announce non-compliance with an order (P)
- Give a negative order (C)
- Give alternative orders (C)
- Cancel an order (C)

1.2 Requests and offers to act

- Request action by another C/P
- Agree to act (C/P)
- State reluctance/unwillingness to act (C/P)
- Refuse to act (C/P)
- Offer to act (C/P)
- Accept an offer to act (C/P)
- Refuse an offer to act (C/P)

1.3 Advice (markers for politeness)

- Request advice (P)
- Give advice (C)
- Suggest a course of action (C/P)
- Suggest a solution to a problem (C/P)
- Suggest alternative courses of action (C/P)

1.4 Permission/approval (markers for politeness, directness)

- Request permission/approval (P)
- Give permission/approval (C)
- Deny permission/approval (C)
- Forbid (C)

1.5 Undertakings

- Undertake to give a service (C/P)
- Agree to undertaking/decision (C/P)
- Undertake to assist (C/P)
- Undertake to contact/relay/report (C/P)
- Announce a spontaneous decision to act (C/P)

2. SHARING INFORMATION

2.1 Information concerning present facts

- Request information (C/P)
- Give information (C/P)
- Request a detailed description (C/P)
- Describe a state (C/P)
- Describe a changed state (C/P)
- Describe an unchanged state (C/P)
- Describe an action in progress (C/P)
- Describe a process (C)
- Describe a procedure (C)
- Describe aims/precautions (C/P)
- Describe the source of a problem (C/P)
- Describe a visual impression (C/P)
- Quote rules (C)
- Ask about needs/wishes (C/P)
- State needs/wishes (C/P)
- Ask about preferences (C)
- State preferences (P)
- Ask about readiness/availability (C/P)
- Announce readiness/availability (C/P)
- Request reasons (C/P)
- Give reasons (C/P)
- Request instructions on how to do (P)
- Give instructions on how to do (C)
- Identify (C/P)
- Announce a problem (C/P)

2.2 Information concerning the future

- Announce an expected action/event (C/P)
- Ask about the expected
- State the expected moment/duration of moment/duration of an event (C/P) an action/event (C/P)
- Ask about possible consequences of

- State possible consequences of an action/event (C/P) action/event (C/P)
- Ask about intentions (C/P)
- State intentions (C/P)
- Request prediction (C/P)
- Predict a future action/event (C/P)
- Warn (C/P)

2.3 Information concerning immediate/recent past events

- Announce a completed action/event having and effect on the present (C/P)
- Announce a change (C/P)
- Announce a nearly completed action (C/P)

2.4 Information concerning the past

- Ask about past events (C/P)
- Announce a past action/event (C/P)
- Announce an avoided problem/incident (P)
- Give a report (C/P)
- Describe a previous communication (C/P)
- Describe a sequence of past actions/events (C/P)
- Request an explanation of a past
- Give an explanation of a past action (C/P) action/event (C/P)
- Indicate deductive reasoning (C/P)

2.5 Necessity

- Ask about necessity (C/P)
- State necessity (C/P)
- Announce a compulsory action (C)
- Announce an inevitable action/event (C/P)

2.6 Feasibility/capacity

- Ask about the feasibility/capacity (C/P)
- Announce feasibility/capacity (C/P)
- Announce unfeasibility/incapacity (C/P)

3. MANAGEMENT OF THE PILOT-CONTROLLER RELATION

- Greet/take leave (C/P)
- Respond to greeting/leave-taking (C/P)
- Thank (C/P)
- Respond to thanks (C/P)
- Complain (P)
- Apologize (C/P)
- Express dissatisfaction (C/P)
- Reject complaint/reprimand (C/P)
- Reprimand (C)

- Express satisfaction (C/P)
- Express concern/apprehension (P)
- Reassure (C)
- Encourage (C)

4. MANAGEMENT OF THE DIALOGUE

- Name addressee(s) (C/P)
- Self-correct (C/P)
- Paraphrase (C/P)
- Close an exchange
- Request response (C/P)
- Read back (C/P)
- Check understanding (C/P)
- Acknowledge (C/P)
- Check certainty (C/P)
- Declare non-understanding (C/P)
- Correct a misunderstanding (C/P)
- Request repetition (C/P)
- Give repetition (C/P)
- Request confirmation (C/P)
- Give confirmation (C/P)
- Request clarification (C/P)
- Give dis-confirmation (C/P)
- Give clarification (C/P)
- Relay an order (C)
- Relay a request to act (P)
- Relay a request for permission (P)

APPENDIX D

From Appendix B of 9835 (2010) *LANGUAGE OF AERONAUTICAL RADIOTELEPHONY COMMUNICATIONS*

PART II: EVENTS AND DOMAINS

The events and domains compiled here are based on research at the Direction Générale de l'Aviation Civile, France.

The following inventory of events, domains and subdomains are some that characterize the day-to-day communications of air traffic controllers and pilots. These events represent control situations, routine or non-routine, that all controllers must be able to handle.

Each event may require familiarity with many lexical domains, to which are associated related words.

1. EVENTS, DOMAINS AND SUBDOMAINS IN AERODROME CONTROL

Airmiss(es) Air traffic rules; avoiding action; trajectory/flight path; speed; distance/range; aircraft characteristics; position.

Air shows Traffic information; activity: acrobatics, formation flights; procedures.

Approach delays Holding instructions; holding procedures; aerodrome circuit; endurance; diversion/alternate; necessary conditions; CAT 3; all-weather landing.

Belly landing Attempted manoeuvres; status of lights; visual check (low pass); position of landing gear; endurance, fuel remaining, fuel dumping/jettisoning; speed; traffic information; state of runway; aerodrome environment; airport installations; emergency evacuation (emergency slides/escape chutes, etc.); fire hazard/risk; damage; ground services.

Bird risk/hazard Position; quantity; names/types of birds; bird scaring in progress; damage to aircraft; delays; bird scaring methods; behaviour of birds.

Bomb threat/alert/scare Disembarking passengers; diversion; baggage identification; dumping/ jettisoning; aircraft interior; crew actions/behaviour; ground services; airport installations.

Cargo problems/dangerous goods Customs; type of cargo; (perishable) organs for transplant; toxic substances; handling; packaging; veterinary services; police search; sniffer dogs; load badly fixed or damaged; intercepting; impounding.

Fire on board Ground services; aircraft interior; smoke; asphyxia; smells; oxygen masks; warning lights; fire fighting equipment; extinguishers; injuries, burns; medical assistance; fire brigade/firemen; emergency slides/escape chutes; engine shutdown; evacuation.

Ground movement incidents Activity on the field; fire-brigade training exercises and interventions; vehicles on the field; braking action and visibility; traffic information; start-up; towing equipment; engine checks; remote holding pattern; holding point; runway infringement; delays; stuck in the mud; damage caused by vehicles on the ground; no entry disregarded; collisions; vehicle or plane breakdown; damage to beacons; foreign objects (name, description); problems boarding or disembarking passengers; baggage identification; means of disembarking; health services; handicapped/sick passengers; parking position/space.

Health problems Symptoms; first aid; aircraft interior; type of medical assistance; medical background of passengers; diversion; airport installations; ground services; sickness, discomfort, wounds, epidemics; medical equipment; blood (group, transfusion ...); medical advice; the human body; forensic surgeon; quarantine; food poisoning; food; vaccines; medical staff; medicines and artificial limbs.

Incidents on landing Long/short landing; missed exit; stuck in mud; weather; cargo problems; runway confusion; bird or animal hazard; damage to tires; aircraft breakdown; missed approach.

Industrial action Ground staff; control/operational staff; effects on traffic; delays; types of strike; demonstrations; sit-ins.

MET (weather) conditions ATIS (visibility, clouds, etc.); (thunder) storms, lightning; damage and breakdown; snow clearing; gusts; wind shear and microburst; minima; state of runway; tailwind, crosswind; braking action; runway visual range; temperature inversion; turbulence; natural disasters; runway closed; change of runway.

Missed approach Go around; minima; traffic position; endurance; reasons; traffic; procedures; speed.

Parachute jumping/dropping activity Position; information on other traffic and activity.

Pilot not familiar with airfield Procedures; airfield installations; ground services; duration of drop; drop zone.

Pilot's temporary disability Health problems; aircraft controls and instruments; pilots actions/behaviour; airfield environment; airport installations.

Problems linked to flight plan Delays; slots; flight plan updating; computer breakdown; no flight plan; flight plan conformity; flight plan processing; search and rescue; type of flight plan.

Problems linked to passenger's behaviour + unlawful interference

Violent/threatening behaviour; reasons (drunkenness, etc.); aircraft interior; damage; weapons; actions to overpower; assistance requested of police/fire rescue; demands; ethnic origin; physical description of persons; political allegiances; ground services; airport installations; injuries/wounds; stowaways.

Re-routing/diversion Approach plates; procedures; routing; endurance; weather; airport installations; ground services; aircraft breakdowns.

Special flights ILS calibration; Special test flight procedures; banners, balloons, etc.; ultralights, gliders; helicopters; aerial photography; highway watch; fire fighting aircraft; supervision of power lines; military training procedures; types of military aircraft.

Take-off incidents Abort; bird/animal hazards; traffic interference; runway incursion; overheating; towing; 180° turn back; runway excursion; cancellation and change of clearance; problems with steering gear, engine power; aircraft breakdown.

VFR flights lost/in difficulty Aerodrome environment; direction finder; manoeuvres for identification; endurance problems; installations at alternate/diversion field; forced/crash landing; ground services.

VIP flights Official ceremonies; protocol (greetings, etc.); ferry flight; military escort; diplomatic clearance; country names and nationalities; apron/ramp; boarding and disembarking of passengers; VIP vehicles; effects on traffic.

2. EVENTS AND DOMAINS LINKED TO EN-ROUTE AIR TRAFFIC CONTROL

Administrative problems Diplomatic clearances; customs regulations; civil service departments; impounded aircraft.

Aids for VFR flights Instrument panel; on-board equipment; pilot rating; flight plan; local place names; visual landmarks; positions; directions; endurance; aircraft breakdown; weather problems.

Aircraft breakdowns Instrument panel; instrument operation; radio beacon; positions/fixes; noises/sounds; smells; smoke; airport installations; ground services; engine performance; speed; relief/high ground; actions to solve problem; weather; dumping/jettisoning; flight profile; structural damage (glass, metal); health problems; flight systems; aircraft controls; response to controls; airframe; warning lights; landing gear.

Aircraft proximity + pilot complaints Conflict situations; traffic load; aircraft characteristics; flight profile; weather conditions; injuries; distance/range; pilot manoeuvres; rules, procedures; avoiding action.

ATC system breakdowns ATC equipment/systems; radar display; radar performance; radio operation; previous messages; relaying messages; actions to repair; delays/duration; telephone lines.

Bomb scare Aircraft interior; search methods; dumping/jettisoning; ground services; airport installations; ground movements.

Cargo problems Dangerous goods Packaging; substances; toxic substances; animals; smells; cabin equipment; load distribution; loading/unloading.

Change in flight plan Flight plan.

Collisions Airframe; structural damage (glass, metal, etc.); response to controls; debris; airport installations; ground services; relief/high ground; weather conditions; aerodynamic behaviour.

Fire on board Outbreak of fire; control of fire; damage; aircraft interior.

Health problems Parts of the body; organs; symptoms; sicknesses; injuries/wounds; artificial limbs; medicine/drugs; first aid; medical equipment; medical staff; medical specialists; vaccines; quarantine.

Lack of fuel Airport facilities/installations; ground services; high ground; positions/locations; endurance/fuel remaining.

Misunderstandings Previous messages; types of message; radio performance.

Passenger behaviour + unlawful interference

Violent/threatening behaviour; drugs; firearms; injuries; mental instability; nationalities; political allegiances; demands; threats; ground services; medical assistance; means of calming; means of overpowering; flight deck and cabin personnel.

Request to relay Names of people; means of relaying.

Special conditions on arrival State of traffic on ground; priority flights; industrial action; accidents; weather conditions on the ground; ground equipment failure; airport installations; ground services; curfew; approach procedures.

Special flights Type of aircraft; ferrying; diplomatic personnel; country names; nationalities; aeronautical military slang; military exercises; in-flight/mid-air refuelling; pilot manoeuvres; positions/fixes; weather conditions; VFR/IFR procedures; visual flight rules; airport installations; ground services.

Unauthorized manoeuvres Airspace; rules; previous messages; flight profile; positions/locations; stall levels.

Weather/MET problems Icing problems; clouds; struck by lightning; turbulence; external parts of aircraft; engine performance; response to controls; instrument performance; alarms; violent movements; relief/high ground; flight profile; injuries; objects in plan; blindness/loss of visibility.

3. OTHER DOMAINS

Activities on the field Change of runway and pattern; ramp vehicles; snow clearing; sweeping; mowing; harvesting; closure, opening of runway access roads; runway inspection.

Aerodrome/airfield environment Topography (hill, slope, coastline, forest, etc.); civil engineering (water, tower, bridge, pylon, etc.); high ground/terrain; built-up areas; roads and railway lines; power lines; cardinal points; particular local activities (firing range, etc.); agricultural activities.

Aircraft breakdowns Aircraft spare parts; systems (oxygen, hydraulic, electrical, de-icing, etc.);

flight deck/cockpit; controls; instruments; instrument operation; noises and symptoms of malfunction; transponder problems; loss of radio contact; malfunctions; overheating (brakes, engine, etc.); dumping/jettisoning; landing gear/tires.

Airfield facilities/installations ILS, radar, VOR, etc.; lighting systems; reliability of radio aids; direction finder; poor visibility equipment; aprons/tarmac/ramps; runways, taxiways; length and width of runway; parking zone; holding area; terminal; cargo area; bearing strength.

Ground services Opening hours; availability of services at night; assistance on ground; safety altitude; passengers/persons on-board; unserviceable equipment (stairs, luggage trolleys, etc.); auxiliary power unit; de-icing; refuelling; delay due to de-icing or refuelling; bird scaring; towing; fire fighting methods; safety services; medical assistance; baggage handling.

Procedures Noise abatement; departure; approach; all weather take off and landing go-around; holding procedures; land behind; curfew; local residents.

APPENDIX E

From Appendix B of 9835 (2010) *LANGUAGE OF AERONAUTICAL RADIOTELEPHONY COMMUNICATIONS*

PART IV: GLOSSARY OF BASIC AND COMPLEX STRUCTURES

The structures compiled here are based on research at the Eurocontrol Institute of Air Navigation Services, Luxembourg.

Basic structures:

- Articles
- Adverbs of frequency
Always, Generally, Usually, Often, Sometimes, Seldom, Never, etc.
- Comparison of adjectives
- Discourse markers
Actually, Basically, Anyway, (and) yeah (more and more frequent), Listen, I mean, Let's see/Let me see, Like, Oh, Now, Okay, So, Well, You know, You see, You know what I mean, It is true, Of course, But, Still, (and) by the way, Besides, Another thing is, On top of that, So, Then, First(ly), Second(ly), etc., First of all, In the first/second place, Finally, In the end, In short
- Modal verbs
Can, May, Must, Have Got to, Should, Ought to, Would, Could, Might, Needn't, Don't have to, Mustn't
- Numbers (cardinal and ordinal)
- Passive voice
Simple present
Simple past
- Position of direct and indirect objects:
Bob sent some flowers to his girlfriend.
Bob sent his girlfriend some flowers.
- Question words for describing people and things and for requesting information
What? Who? Which? Why? Where? How?
- Relative pronouns
Who, which, whose
- Tenses
Present simple
I do
Present continuous
I am doing

Past simple

I did

Past continuous

I was doing

Present perfect simple

I have done

Present perfect continuous

I have been doing

Simple future tense

Will

Future

Going to

- There to be

Present, past, future

Complex structures

- Adjectives

Gradable and ungradable adjectives

Fairly angry (gradable)

Totally amazed (ungradable)

Prepositions after adjectives

Angry about, afraid of, etc.

Adjectives + that clause or to + infinitive

Enough, sufficiently, too + adjective

The sooner the better, etc.

- Adverbs and conjunctions

Comment adverbs

apparently, frankly, rightly

Viewpoint adverbs

biologically, ideologically, morally

Adverbial clauses of time

before, until, after, as soon as, before, when, while, hardly, no sooner, scarcely

Giving reasons

seeing that, since, in as much as, due to, owing to, with so many people ill

- Clauses

Relative clauses

Participle clauses

-ing, -ed and being -ed

Participle clauses with adverbial meaning

Opening her eyes, the baby began to cry.

Formed 25 years ago next month, the aviation club ...

- Conditionals

Real and unreal, all tenses

- Discourse markers

Mind you, On the whole, Broadly speaking, By and large, Certainly, May, stressed “Do”, On the one hand, On the other hand, While,

Whereas, However, Even so, Nonetheless, Nevertheless, All the same, Although, Though, Even though, If, In spite of, Despite, Incidentally,

Moreover, Furthermore, In addition, Additionally, (and) what is more, Therefore, As a result, Consequently, (Quite) on the contrary, To begin with, To start with, For one thing, For another thing, In conclusion, Briefly

- Infinitives and gerunds

- Modals

Will and would to show willingness, likelihood and certainty

Will and would to show habits

Modals + past participle to express criticism or regret

- Nouns

Compound nouns

Uncountable nouns with zero article

e.g. good advice

- Passive voice

Present perfect/past perfect/future/continuous forms in general

- Phrasal verbs:

They wanted to **get** the meeting **over with**.

The programme's lack of success could be **put down to** poor management.

Boeing **came in for** a lot of criticism over their new plan.

- Quantifiers

One of + plural

One of the best things

Each (of) and every + singular verb except when follows the noun or pronoun it refers to.

- Questions

Reporting questions

Negative questions

Question tags

- Reflexive pronouns

Herself, himself, themselves

One and ones

There's my car — the green one.

So

I think so.

So I hear.

Do so

She won the competition in 1997 and seems likely to do so again.

Such

Such behaviour is unacceptable in most schools.

- Reported speech

They promised that they would help him the next day.

He told me it wasn't going to be ready by Friday.

- Verb tenses

Past Perfect

I had done

Past perfect continuous

I had been doing

Present continuous

For the future

Future continuous

I will be doing

Future perfect

I will have been doing

The future seen from the past

Was going to, etc.