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# TARGET LANGUAGE USE ANALYSIS IN AVIATION ENGLISH TESTING

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## **TELLCAP® Test of English Language Level for Controllers And Pilots**

2005 – endorsed by the Russian CAA

2006 – accredited and endorsed by  
the Interstate Aviation Committee

2011 – endorsed by Austrocontrol

2012 – conditionally endorsed by ICAO

2013 - ???



## Aviation English Testing



**General English Testing**



**Aviation**





## ICAO Language Proficiency Rating Scale

Level	Pronunciation	Structure	Vocabulary	Fluency	Comprehension	Interactions
<b>Expert 6</b>	Assumes a dialect and/or accent intelligible to the aeronautical community	Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task				
	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
<b>Extended 5</b>	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/ listener relationship effectively.
<b>Operational 4</b>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.
<b>Pre- operational 3</b>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
<b>Elementary 2</b>	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
<b>Pre- elementary 1</b>	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

## ICAO Holistic Descriptors of a Proficient Speaker

- Proficient speakers shall communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations.**
- Proficient speakers shall communicate on common, concrete and work-related topics with accuracy and clarity.**
- Proficient speakers shall use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context.**
- Proficient speakers shall handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar.**
- Proficient speakers shall use a dialect or accent which is intelligible to the aeronautical community.**



## Level 6

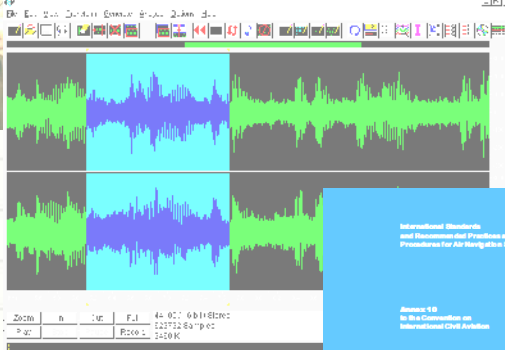
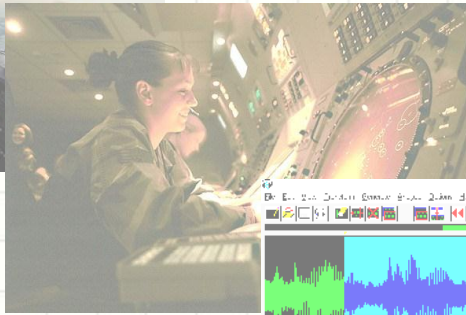
Comprehension	Interactions
Comprehension is consistently accurate in nearly all contexts and includes <u>comprehension of linguistic and cultural subtleties</u> .	Interacts with ease in nearly all situations. Is sensitive <u>to verbal and non-verbal cues</u> and responds to them appropriately.



**“Cleared for ILS approach  
to the runway-in-use”.**

**Ask for clarification**





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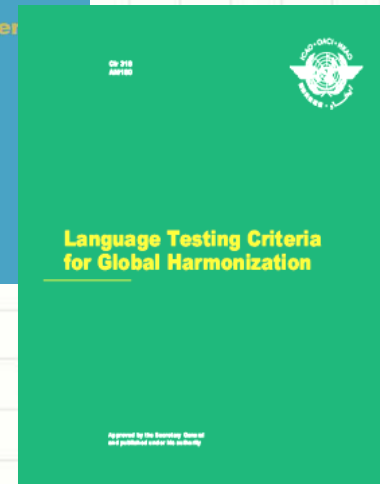
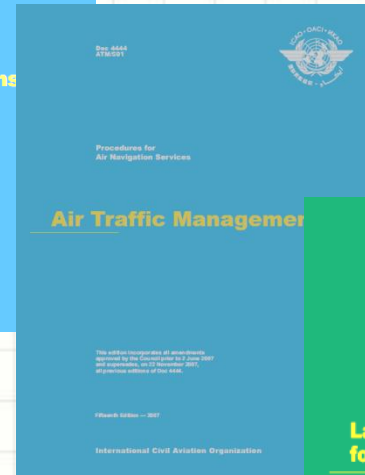


# Target Language Use Analysis

## Register Analysis

## Routine Situations

## Non-Routine Situations





## Transcript



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No	P/C	Message	Comments	Communicative Functions
1	P	Okay, Moscow, November one three zero Tango Mike is heading two four zero, descending down to <u>five thou er</u> to one thousand eight hundred meters.	<i>"Down" is redundant and not specified in ICAO Doc 4444 The first sign that the crew mixes SI and metric units of measurements</i>	Inform ATC about heading and descent.
2	C1	November one three zero Tango Mike, Vnukovo Radar, turn right, heading three three zero, descend to level one thousand two hundred meters.		Respond to initial call. Give heading and descent instructions.
3	P	...three zero, down to one thousand two hundred meters, roger.	<i>ICAO wording: "descending to". Failure to use call sign in acknowledgement</i>	Receive and read back heading and descent instructions.
4	C1	November one three zero Tango Mike, descend to height six hundred meters, QFE nine seven nine millibars.		Give descent instructions. Give data for altimeter setting.
5	P	Roger, nine seven nine millibars, and we're down to six hundred meters, roger.	<i>ICAO wording: "descending to" Failure to use call sign in acknowledgement (repetitive in further communications)</i>	Receive and read back descent instructions and data for altimeter setting.





1950s

ICAO requirement to use  
standardized phraseology

2008

ICAO requirement to demonstrate  
at least L4 in the language of ATC  
when phraseology does not suffice



ICAO Language

Proficiency Requirements

ICAO Language

Proficiency Rating Scale



ICAO Doc 9835:

“a broad interpretation of the holistic descriptors and Rating Scale” aimed at eliciting “plain language on various topics that are related to radiotelephony communications or aviation operations, without replicating radiotelephony communications specifically”.





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PROPOSAL FOR ADDITIONAL PASS/FAIL DESCRIPTORS FOR PHRASEOLOGY TO  
COMPLEMENT EXISTING ICAO LANGUAGE PROFICIENCY RATING SCALE DESCRIPTORS

Level	Descriptors
<b>PASS</b>	<p>Mostly uses standard ICAO phraseology accurately and appropriately, even when switching between phraseology and appropriate plain language. Pronunciation of phraseology conforms to ICAO recommended pronunciations when available, or otherwise to a natural model of pronunciation which is intelligible to the aeronautical community. Speech transmitting technique (enunciation, rate of speech, pausing, and speaking volume) is adequate to fulfill ICAO recommendations for intelligibility.</p>
<b>FAIL</b>	<p>Frequently fails to use standard ICAO phraseology accurately and appropriately, particularly when switching between phraseology and appropriate plain language. Pronunciation of phraseology frequently fails to conform to recommended pronunciations when available, or otherwise fails to conform to ICAO recommended pronunciations when available, or otherwise fails to conform to a natural model of pronunciation which is intelligible to the aeronautical community. Speech transmitting technique (enunciation, rate of speech, pausing, and speaking volume) is not adequate to fulfill ICAO recommendations for intelligibility.</p>



## **We do not simulate radio communications in test tasks**

- to avoid standard phraseology;
- because a characteristic feature of radio communication, as a register, - elliptical grammar, - would not follow the ICAO Scale (when articles, auxiliaries, personal and possessive pronouns can be omitted, etc);
- as it does not allow for assessment of fluency in accordance with the Scale (in radio communications there are no links and discourse markers, and rate of speech should be maintained at a certain tempo, etc);
- because when you need to code-switch from standard phraseology to general language in non-standard situations the requirements remain the same: communication should be concise and unambiguous.



## TELLCAP®, Part 2

- What kind of medical problems are most common among the passengers during the flight?
- What medical specialists can be needed to treat sick or injured passengers after landing?
- What is the crew to do in case of a medical emergency?





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	Message	<p><b>Blue – standard phraseology</b></p> <p><b>Red – General English in aviation context.</b></p>
P	Lufthansa seven three six, er we have some er passenger with medical problems on board, we need to land at Moscow Sheremetyevo, can you please er give us er routing back to Moscow and descend flight level please.	<p><b>State health problem.</b></p> <p><b>Request rerouting and descent.</b></p>
C	Lufthansa seven three six, roger, turn left, er heading to Mike Foxtrot, descend to flight level nine thousand six hundred meters.	<p><b>Receive information on health problem.</b></p> <p><b>Receive request for rerouting.</b></p> <p><b>Give instructions on heading and descent.</b></p>



C	Lufthansa seven three six, what kind of medical assistance do you need?	<b>Query about the kind of assistance.</b>
P	Lufthansa seven three six, er dent, dentist, we need a dentist, that's a medical for teeth, and the patient had troubles with teeth, and then he could not breathe, he was breathing very hardly.	<b>Describe health problem and symptoms.</b>  <b>Request appropriate medical assistance upon arrival (medical specialist).</b>
C	Lufthansa seven three six, confirm you need dentist?	<b>Ask for confirmation.</b>
P	A m a dentist, er it's affirmative, and we need also a heart, er doctor for heart, for breathing, /?/ breathing, he did not breathe light, so an emergency doctor will be good.	<b>Describe health problem and symptoms.</b>  <b>Request appropriate medical assistance upon arrival (medical specialist).</b>



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C	Er, Lufthansa seven three six, roger, you need a dentist and normal medical help.	<b>Request for confirmation.</b>
P	That's affirmative, and maybe you have a <u>Dolmetscher</u> ( <i>Germ.</i> ), because the, the passenger, she is a Japanese, she only er speaks Japanese.	<b>State the problem, request appropriate assistance.</b>
C	You need a translator?	<b>Ask for clarification.</b>
P	That's affirmative, Russian to Japanese.	<b>Confirm the request.</b>
C	Roger.	<b>Acknowledge.</b>





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Question	Linguistic task/ function tested	Content, topical domain tested
1) What kind of medical problems are most common among the passengers during the flight?	(Appendix B, Part I: 2)	Appendix B, Part II: 1 [Symptoms, sickness, medical background of passengers, wounds, discomfort, epidemics, food poisoning]
2) What medical specialists can be needed to treat sick or injured passengers after landing?	(Appendix B, Part I:1, 2)	Appendix B, Part II: 1 [First aid, type of medical assistance, medical staff]
3) What is the crew to do in case of a medical emergency?	(Appendix B, Part I:1)	Appendix B, Part II:1 [Medical advice, type of medical assistance, medical staff, diversion]



## LANGUAGE



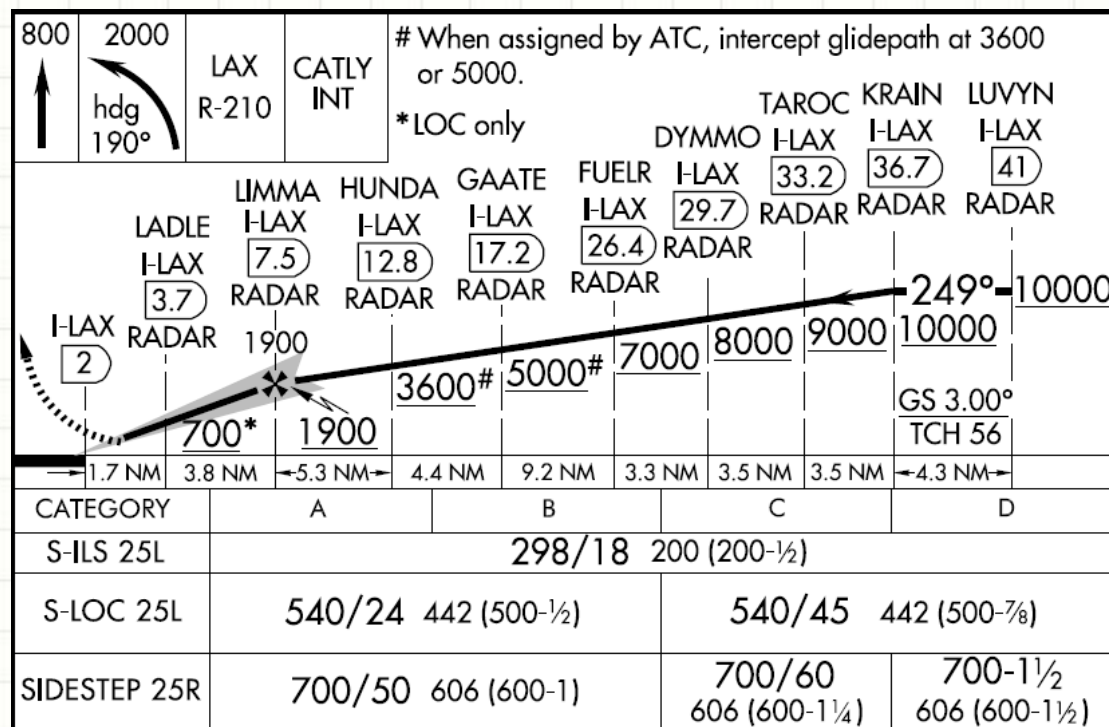
Transactional Use



Interactional Use



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“Technical” questions in ESP testing





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“In each situation, the hearer expects the speaker’s utterances to make sense in the context in which they are produced, but such expectancy is only possible if the hearer knows who is using the language, how, and for what purpose. This is, in fact, why so much of language-in-action appears unintelligible to the outsider”

A. Vatnsdal



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