

English for Aviation

A 4-week, 100 hour course for
pilots and air traffic controllers

Course outline and sample materials



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Background:

ICAO (The International Civil Aviation Organisation) has decided that

- all airline and helicopter pilots who fly internationally, and
- all air traffic controllers who provide services to international flights

..... must have a minimum level of English. This level of English must be demonstrated before March 2008.

ICAO has developed a rating scale with level 4 considered the minimum acceptable level (“Operational Level”)

ICAO Rating Scale for Operational Level 4

A speaker is proficient to Operational Level 4 if the ratings for the following criteria are:

Pronunciation: <i>(Assumes a dialect and/or accent intelligible to the aeronautical community.)</i>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.
Structure: <i>(Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.)</i>	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:	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.
Fluency:	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:	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.
Interactions:	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.

ICAO has developed the following “**Holistic Descriptors**”

Proficient speakers shall:

- communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;
- communicate on common, concrete and work-related topics with accuracy and clarity;
- 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;
- 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; and
- use a dialect or accent which is intelligible to the aeronautical community.

English for Aviation:

A 4-week, 100-hour course for pilots and air traffic controllers

The aim behind the aviation courses offered at Mayflower College is twofold:

- to produce a course that follows the guidelines of the Manual on the Implementation of ICAO Language Proficiency Requirements (Doc9835 AN/453).
- to prepare aviation personnel to achieve level 4 (operational) according to the ICAO's descriptors

Included in this short guide is:

- ❑ An example morning lesson
- ❑ An example afternoon lesson
- ❑ An outline of the four week programme
- ❑ An outline of the four week programme that includes preparation for the Test of English for Aviation (T.E.A.)



Perception and Senses

Offers and Suggestions

Throughout the four week course the lessons have been arranged under topics and functions. This is an example morning lesson from week two, Thursday am. As with all morning lessons the students will have been given a homework text to read that will be relevant to the next day's lesson. The actual lessons themselves focus on speaking and listening

Trouble Shooting – Declaring and Managing Non Understanding

This is an afternoon lesson from week three. Most of the afternoon lessons do not require homework preparation: we do not want students to spend their whole evening reading and preparing for the next days lesson. Rather we prefer the students to be fully exploiting their environment to practise their English communication skills. However we must stress that in order to maximise the benefit of their study time here, all homework tasks must be completed.

Four week programme with TEA test preparation

The nature of the TEA test is that it tests candidates' ability according to the ICAO's descriptors. The only difference with the TEA course is that it includes an element of exam preparation

	Week 1	Week 2	Week 3	Week 4
Monday				
am	Induction-Management of dialogue-Greeting-Reassuring	Technology -Giving reasons present and past	Dangerous Situations -Predicting, warning and expressing inevitability	Schedules and Arrangements -Talking about the future
pm	ICAO Descriptors -Analysing information	Machines & Devices -Paraphrasing, word stress, clauses	Checking understanding -Question forms and intonation	TEA III -Giving full responses
Tuesday				
am	Health -Giving and receiving advice	The Future of Aviation -Stating Intent	Destinations and Geography -Describing position location and visual impression	Machines and Vehicles -Needs, preferences and feasibility
pm	TEA part 1-Background -Question forms	TEA III Problem solving and confirmation	TEA I-Organisations -Summarising and evaluating	TEA IV -Managing conversation
Wednesday				
am	Rules-Regulations -Asking and giving approval	Weather -Describing recent events, change progression	Investigations -Speculating, deducing and reporting	Mock TEA TEST -Feedback
pm	Directions -Giving and asking for clarification	Nationalities and Cultural Differences -Clauses and sentence stress	Error correction -Sentence stress	Orders -Emphasis and imperatives
Thursday				
am	Procedure -giving and receiving instructions-Describing a process	Perception/Senses -Offering and suggesting	Environmental trends -Expressing probability likelihood and consequence	Emergencies -Describing necessity
pm	TEA part two-Readback -connected speech	TEA IV -Tempo, discourse markers and fillers	TEA II -Declaring and managing non-understanding	The Airport -Interacting and responding
Friday				
am	Aviation History -Sequencing-Linking-	Disasters/Emergencies -Past Events/avoided problems	Problems -Describing actions in progress	TEA TEST
pm	TEST	TEST	TEST	Exit Session -Feedback

	Week 1	Week 2	Week 3	Week 4
Monday				
am	Induction-Management of dialogue-Greeting-Reassuring	Technology -Giving reasons present and past	Dangerous Situations -Predicting, warning and expressing inevitability	Schedules and Arrangements -Talking about the future
pm	ICAO Descriptors -Analysing information	Machines & Devices -Paraphrasing, word stress, clauses	Checking understanding -Question forms and intonation	Security -Giving full responses
Tuesday				
am	Health -Giving and receiving advice	The Future of Aviation -Stating Intent	Destinations and Geography -Describing position location and visual impression	Machines and Vehicles -Needs, preferences and feasibility
pm	Background -Question forms	Dilemmas - Problem solving and confirmation	Organisations -Summarising and evaluating	Human Resources -Managing conversation
Wednesday				
am	Rules-Regulations -Asking and giving approval	Weather -Describing recent events, change progression	Investigations -Speculating, deducing and reporting	Space -Questioning,clarifying and confirming
pm	Directions -Giving and asking for clarification	Nationalities and Cultural Differences - Clauses and sentence stress	Error correction -Sentence stress	Orders - Emphasis and imperatives
Thursday				
am	Procedure -giving and receiving instructions-Describing a process	Perception/Senses - Offering and suggesting	Environmental trends -Expressing probability likelihood and consequence	Emergencies -Describing necessity
pm	Accent -Readback- connected speech	Anecdotes -Tempo, discourse markers and fillers	Trouble Shooting -Declaring and managing non-understanding	The Airport - Interacting and responding
Friday				
am	Aviation History -Sequencing-Linking-	Disasters/Emergencies -Past Events/avoided problems	Problems -Describing actions in progress	End of course TEST
pm	TEST	TEST	TEST	Exit Session -Feedback

Perception and Senses

Offers and Suggestions

In this lesson

Discuss the homework

Focus on senses vocabulary

Listen for key words

Describe working conditions

Focus on making/accepting suggestion /offers

Role Play



- In pairs discuss the homework reading.*
 - How does the pilot feel about flying?
 - What words does he use to describe these feelings/sensations?
- Look at the words below. Group them according to which sense they are referring to.*

Hearing (H)

Touch (T)

Sight (S)

Smell (SM)

	listening to the meadowlarks		barely detectable with the naked eye
	warms my face		looking at each dial and gauge
	how the airplane will smell and feel		a pleasant roar
	looking at this		shouting for my attention
	prodding that		Now I see a
	looking for leaking brake fluid		Searching
	get oil on my hands		to heat
	and finger this		kiss the earth
	touching fabric		The silence
	and a growl		I fumble
	is cool and hard		smell the grass
	watch the rudder		gaze at the
	as I push right		feel the heat

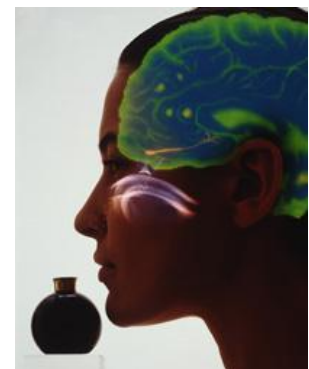


- Listen to the recording and cross off each of the previous words/phrases as you hear them*
 - Listen to the second recording and fill in the missing words*

The Senses

We perceive the outside world through our senses. During flight, our senses can give us _____ information.

The senses provide the body with information about its _____. There are several sense organs, such as the eyes, ears, nose, taste buds, and skin. Within these organs, sensory information is _____ by sensory receptors. Nerve impulses travel to the brain to be interpreted.



The sense organs that pilots rely on most are the _____. In daylight and good weather, pilots receive up to ____ of their information needed for situational awareness through their vision. At night, pilots must learn

to use their eyes in a different way and utilize their peripheral vision. In bad weather, that requires _____ flying; pilots must watch and rely on their instruments. Their senses can mislead them.



4. (a) *In pairs. Imagine you are standing outside the control tower in the picture. Describe what you hear, see, smell and feel.*

(b) *Now imagine you are inside. Again describe your sensations*



Making Offers and Suggestions

5. (a) *Think of your own working environment. Describe it to your partner.*

(b) *What are the possible problems that could occur in your working day? Consider the following areas:*

- Communication
- Comfort
- Colleagues
- Machines (Technology)
- Time
- Anything else

6. *Imagine you are the colleague or supervisor of somebody who is experiencing some of the problems you mentioned above. What offers or suggestions could you make to help them. Include these expressions in your advice*

Can I

Let me....

Try.....

Think about the language you might use to respond to the suggestions eg

Can I help you? No I'm fine thanks Yes I need you to

Let me do that No I'm/it's ok. OK

Try increasing the volume No, it/that doesn't work That's better

Your teacher will use some of your examples and drill them with the whole class

7. *In pairs think of a situation from above. Create a role play where one of you is experiencing difficulties and the other is offering or making suggestions to help. Act out your situation in front of the class.*



Read this article for homework in preparation for tomorrow's lesson. Make a note of any words that describe the senses (sight, sound, taste, touch, smell)

A Colorado Sunrise, a Stearman and a Vision

Every pilot has his favourite time and place to fly. The urge grips me hardest on dead-still, cloudless Colorado mornings as the sun creeps up over the earth's rim. Standing on my deck, surveying the crest of the Rockies, listening to the meadowlarks, I know how it will be. As the rising sun warms my face I think about how the airplane will smell and feel as I pre-flight it. The cockpit will be just so as I settle into it — every



familiar dial and gauge will be ready to tell me its tidbit, every knob will welcome my fingertips, and the stick and throttle will fit naturally into my hands as I grasp them. And I know how the airplane will feel as her wings bite into this still, calm air. Inside, I go for a quick shower and shave, then head out to the airport.

The hangar door squeaks as the door rises, this in spite of the grease and oil I have squirted liberally over time in vain attempts to cure that squeak. The door rises slowly, majestically, to the whap, whap, whap of the roller and the

pleasantly protesting, squeaking bearing.

The rising door admits the sunlight, still at a deliciously low



angle, into the dark, cavernous bay where my airplane awaits.

I circle the airplane several times, looking at this, prodding that, checking the oil, checking the fuel, checking the air in the tires, looking for leaking brake fluid. Just often enough to keep me interested I find something amiss, although the problems are rarely significant enough to delay my departure.

Because I am picky, I add a little oil to the crankcase. This chore inevitably allows me to get oil on my hands and gives me a tiny mess to wipe with a rag. Because I have the rag out, I wipe at this and wipe at that, scrape some bug carcasses off the wing leading edge with my fingernail, and finger this and that in an unorganized, unhurried way.

The magic of aviation is that this 51-year-old contraption of metal, wood, fabric, paint, wire, and rubber will actually fly. I have seen this miracle occur often enough to have faith that it will occur again, when I will it, in just a few more minutes. Yet the predictability of this does not lessen the wonder for me. So now, I amble along with my rag, touching fabric and struts and wheels, running my fingers along the leading edge of the prop, looking and feeling and savouring.

Finally, I am ready. The still, clear air is waiting.

The Stearman comes to life with a chug and a growl and a chuff of smoke. The round, nine-cylinder Lycoming engine settles into a rocking idle. The laminated hickory joy stick is cool and hard to my touch as I waggle it. Sure enough, the ailerons and elevator respond predictably to my inputs. I crane my neck and watch the rudder as I push right and then left on the pedals.

After nudging the mixture knob up a trifle, I add some throttle and the big yellow biplane begins to roll.

Out in front the prop is a mere blur, barely detectable with the naked eye, yet the breeze it produces swirls back over the cockpit and caresses my exposed cheeks and neck. It plays daintily with my shirt while



the early morning sun casts strong shadows on the grey instrument panel, on the yellow wings, and on the grey asphalt as the airplane taxis toward the runway.

In the run-up area, I sit in the cockpit looking at each dial and gauge in turn, listening to the engine, surveying the limp windsock and the empty blue sky above as the engine oil warms. To the west, the peaks of the Rockies are washed-out pastels embedded in a thin trace of haze. High overhead in the blue are contrails, perhaps airliners on the morning run to

Los Angeles and San Francisco or maybe Air Force tankers on their way to a rendezvous or bombers on a practice mission. The airplanes at the end of the contrails are tiny silver specks, too high to be identified.

Soon the engine is ready. I run her up to 1,600 rpm and check



the mags, cycle the prop, and engage the carb heat momentarily. Everything works as it should, precisely as it should, when it should.

After announcing my departure over the radio, I taxi the Stearman onto the runway and line her up. Anxious to be gone now, I feed in throttle while jockeying rudder and stick to hold her straight. The engine's moan rises to a pleasant roar and the prop wash becomes a stiff breeze.

Down the runway we go, the speed steadily increasing. The tail rises, and I can see straight ahead over the nose. The rudder is very sensitive now, the stick more solid. A glance at the airspeed indicator — 60, 65 — and stick back to let the wings bite into the air.

Upward I steer away from the ground, away from the strident voices shouting for my attention and my time. I cannot completely escape the people or the problems up here, not for very long anyway, but for a little while I can see the earth and its inhabitants from a better perspective. Where else but aloft in an infinite blue sky can

you see how small the towns and cities really are, how tiny the houses, how minuscule the people? Where else but here can you see how a stream has meandered down its valley as the ages have slipped past, how the hills have weathered, how the mountains are once again surrendering their crown of snow as the days lengthen and the sun climbs the sky?

The engine and the bright yellow wings lift me higher and higher. Now I see a hawk circling haphazardly, searching vainly for a thermal. He is too early. He'll have to work awhile, until the sun has had a few more hours to heat the earth..

I am alive. Up here with the song of the engine and the air whispering on my face as the sunlight and shadows play upon the banking, wheeling wings, I am completely, vibrantly alive. With the stick in my right hand, the throttle in my left, and the rudder beneath my feet, I can savour that essence from which life is made.

Too soon I must head down, down toward the waiting runway. As usual, I do three or four landings, play the power and the controls and try to induce the airplane to kiss the earth precisely where, when, and as I want it to. The errors are mine alone.

Finally, I am taxiing again. In front of the open hangar bay I pull the mixture to cut-off, and the engine dies.

The silence stuns me. I fumble with the switches, making sure that mags and battery are off, then pull off the flying helmet and let the sun dry my sweaty hair.

Reluctantly, I climb from the cockpit, smell the grass and earth, gaze at the motionless



prop, and feel the heat radiating from the silent engine. But maybe, just perhaps, the wind will not pick up much today. It looks like clouds will drift in this afternoon, but if the wind doesn't come with a vengeance, perhaps this evening. Perhaps this evening I can fly again.

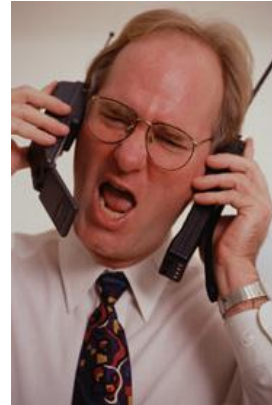
Stephen Coonts, AOPA 1056593, owns a Cessna 421B, a 1942 Stearman, and a Breezy. A former naval aviator and attorney, he is the author of Flight of the Intruder, Final Flight, The Minotaur, Under Siege, The Cannibal Queen, and The Red Horseman.

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Trouble Shooting - Declaring and managing non-understanding

In this lesson:

- Talking about communication problems
- Useful expressions
- Pronunciation
- Practice
- Role-play



1. Communication problems

What sort of things can affect good communication?

In groups, make a list of as many as you can think of in the box below.

Communication Breakdown

Example: Noise interference

Look at the examples of problems in aviation communication in the box below: Discuss what they mean with a partner.

Reasons why communication fails:-

Noise Static	Fatigue Stress	Multiple communications	Clipping	
Distractions	Jargon Incomplete message	Ambiguous wording	Lack of rapport	
Blocking	Overuse of abstractions	Fear of hierarchy	Disbelief	
Cultural differences	Interference	Panic	Illness	Readback

*Look at the following situations where communication can fail.
Which of the problems above best match the situations?*

- Communication between pilots.



Example: *Lack of rapport*

- Communication between pilot and ATC.

Example: *Jargon*

*Which of the above have happened to you?
What did you do about it?*

2. Declaring misunderstandings: Useful expressions

I didn't get that

Repeat that

I don't follow

what do you mean?

can you clarify?

Sorry?

can you clarify?

say again

What was that?



3. **Pronunciation:** *Listen and note the intonation and stress in the following dialogues.*

Situation 1: The pilot has trouble with the audio panel.

A: I can't hear anything.

B: Are the audio switches set correctly?

A: Sorry? Repeat that.

B: Are the audio switches set correctly?

A: I'm checking that now.



Situation 2: The Pilot is checking a problem with the VOR.

B: Is the correct frequency active?

A: **I didn't get that.**

B: Do you have the correct frequency?

A: Oh right, I understand. Yes, I do.

B: Can you select a reciprocal OBS course?

A: **I don't follow, Can you clarify?**



4. **Brainstorm problems:**

What problems could occur in the following situations? Think of one example for each.

- A passenger at the airport.
- Training a new pilot.
- Working with a new co-pilot who isn't very experienced.
-
- Flight attendants first flight.
- Bad weather conditions

In pairs invent a short dialogue for one of the above. Try to include some misunderstanding.



5.

Your Teacher will give you a role card describing a problem. Work in pairs. Sit back to back so there is no visual communication.

Describe your problem/ situation to your partner. Use any of the language to clarify anything you don't understand.

Trouble Shooting: Role-Play cards



<p>1A</p> <p>You are a passenger in an airport travelling with your family. You have noticed that your youngest child has gone missing just as you are about to board the plane. You don't speak very good English so you find it difficult to understand what people say. You often have to ask them to speak slowly or repeat things. Find a member of airline staff and explain your problem to them. Listen carefully to their instructions.</p>	<p>1B</p> <p>You are a flight attendant travelling on your first long haul flight to India. During boarding, one of the passengers is very distressed and is trying to communicate a problem to you. The passenger's English is not very good and you find it difficult to understand the problem. Listen carefully and then try to offer some advice and assistance to solve the problem.</p>
<p>2A</p> <p>You are an experienced captain flying with a new co-pilot who you have never worked with before. He is very nervous and worried about working with you. Suddenly you become unwell and need to explain how to land the plane. Give your co-pilot instructions.</p>	<p>2B</p> <p>You are a newly trained co-pilot flying with a very experienced and well-known captain. You are very nervous to be working with him. Suddenly he becomes unwell and you have to take instructions from him in order to land the plane. Unfortunately there is also a lot of noise and his speech is not clear so you are finding it very difficult to hear him. You are also having a lot of technical problems.</p>
<p>3A</p> <p>You are a member of crew flying on a very busy long distance flight. One of your passengers is ill and may need medical attention. You need to radio for advice but there is a lot of interference in the transmission and you are finding it very difficult to understand anything. Try to explain the situation.</p>	<p>3B</p> <p>You are a medical officer on duty when you receive radio communication from a member of the crew on board a flight. Unfortunately there is a lot of noise interference and you find it very hard to hear her message. Try to understand what the problem is and give the appropriate advice.</p>