

Aviation English Training: How long Does it Take?

Elizabeth Mathews
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I am often asked, “How long does it take to achieve ICAO Operational Level 4?” Unfortunately, there is no quick and easy answer to this question. However, there is research and experience upon which we can draw to make some general estimates of time required for pilots and controllers to achieve compliance with the ICAO language proficiency requirements. That research is summarized briefly in this document.

Short answer:

- From between 200 – 400 hours will be adequate for many pilots and controllers to achieve ICAO Operational Level 4.
- For any number of reasons, some pilots and controllers may require from between 400 to 800, or more, hours of English language training.

Background

Unlike academic or general English training, which is robust and has decades of materials and program development, Aviation English training is very much in its infancy. While there are naturally many parallels between English language teaching in general and in aviation, the dissimilarities are significant:

Aviation	General or Academic English
Learners are professional, mid-career with little time available for study.	Learners tend to be young, at the start of the career with much time and career flexibility.
Serious personal consequences for failure to achieve desired results.	More flexibility to overcome language-learning failures.
Very high stakes, with safety and career consequences.	Can be high stakes (failure to enter desired university) but not safety-critical.
Few training options available.	Lots, hundreds, of training options available. Poor training can be compensated for by transition to other training programs.
Limited aviation English materials available.	Hundreds of English teaching and learning materials available.

One thing both fields have in common is that both general/academic English training and aviation English training are unregulated industries. Quality of program effectiveness varies widely. Typically, university English language programs represent best practice, although North American university *foreign language* departments do not.

Difference One: Consequences

A key difference is that the consequences of this fact are dramatically different in the aviation industry than in the academic/general English training industry. When learners in an academic or general English program do not achieve desired success, they often ‘blame themselves,’ go away, and find another training program somewhere else, and hope for better results.

Aviation English learners do not have the luxury of experimenting to find the right program. The consequences at an individual, corporate, and, indeed, national level are quite significant.

Difference Two: Resources

A second key difference is that in the academic/general English training, programs always have available and make use of lots of differently sourced materials and training aids, as thousands are available. Indeed, a key factor in language learning is that the learners have access to ‘much comprehensible input.’ Programs typically draw on multiple sources of learning materials.

In contrast, by necessity, aviation English training is still in a state where all programs are pursuing individual, single-sourced solutions. This is inevitable, at this stage, but it should be understood that ‘best practice’ in aviation English training will be to provide as much opportunity for ‘comprehensible input’ as is possible. Language training is **not** a case in which ‘less is more.’ The more successful language training programs will make **more** materials available to the learners. The ‘richer’ that the language learning environment is, the more successful the language training is likely to be.

Training Hours

In academia, language training is rarely discussed in terms of ‘hours.’ English teachers who move into the aviation industry do so simply because the flight training perspective demands it. Language training is more often discussed in terms of weeks and months, not hours.

Typically, one month of full-time study (usual academic/general English program) provides 120 hours of study.

Research and experience

Firstly, we have no current hard research on how long it is taking pilots/controllers to achieve ICAO Operational Level 4, because it is still a quite new training standard. However, we can extrapolate from other research and aviation English training experiences.

In sum, a reasonable estimate, depending on initial starting proficiency level, and influenced a great deal by other factors, some listed below, is that from between 200 hours to more than 800 hours may be expected in order for pilots and controllers to

achieve ICAO Operational Level 4.

1) Academic English

Research from academic English programs (including TOEFL test research) has found that a minimum of 200 hours is required for students to achieve 'measurable' progress in English proficiency. Those programs, however, include a focus on reading and writing; the ICAO requirements is purely speaking and listening, so perhaps more s/l progress can be achieved in 200 hours of intense focus on s/l.

2) USDLI

To bolster that supposition, the experience of the US Defense Language Institute, which has taught aviation English for upwards of 50 years to foreign pilots from friendly countries, finds that 100 hours of aviation specific English speaking/listening classes can produce measurable improvement.

3) ERAU and ENAC (France)

Aviation English programs confirm 100 - 200 hours of aviation-focused s/l classes for "measurable improvement."

Big QUESTION: What is "measurable improvement", and how does that correspond to the ICAO scale?

4) FSI

The US Foreign Service Institute and ACTFL (American Council for the Teaching of Foreign Languages) also publishes information on expected learner progress. (The ACTFL/ILR Level 2 or 2+ is very roughly equivalent to an ICAO Operational Level 4.) They expect the average learner with ZERO proficiency to require from between 480 - 720 hours to achieve what is roughly equivalent to the ICAO 4. Some learners (perhaps related to language 'distance,' and cultural factors) may require from between 720 - 2000 hours to achieve the equivalent to ICAO 4.

HOWEVER, it is important to remember that the FSI hours include Reading and Writing classes and tests, in addition to Speaking and Listening. The ICAO requirements only include speaking and listening proficiency. This means that we can perhaps expect better results in a shorter time frame; but one shouldn't expect to cut those FSI numbers in half. In addition, some cultures may be more comfortable acquiring reading and writing skills, while others seem to more readily acquire speaking and listening skills, additional factors.

Two important considerations

a) The bad news: the research and experience we can use to estimate 'how long it takes' all come from programs that are

- Full-time (30 - 40 hours per week)
- Often (not always) 'immersion' in the 'Target Language' culture
- Live teacher-led, classroom training

Pilots and controllers cannot easily replicate that environment. That leads us to expect that part-time, native-culture learning might require more time.

b) **Good news:** These programs include R/W proficiency learning for at least half the time of the programs. Pilots and controllers only require S/L proficiency. That leads us to expect that speaking and listening proficiency can be achieved in less time.

c) **Computer-assisted:** Computer-assisted language training/learning (CALL) can reduce (but probably not eliminate) required time in class and facilitate language learning. The research available do not adequately account for the additional support of self-paced, computer-based learning.

Factors

Many factors impact the rate of language acquisition, including the following, inter alia:

External factors: (possible to control)

- Environment: immersion or in-country training;
- Full-time or part-time study;
- Methodology of instruction;
- Quality and preparation of teaching staff;
- Interest-level of the teaching materials
- Time on learning tasks

Intrinsic factors: (difficult to control)

- Starting proficiency level;
- Motivation;
- Attitude (seems to be more important than aptitude)
- Personality
- Learner style

A caution about worrying over much about 'aptitude' is in order. Language acquisition researchers have not been able to precisely identify any intrinsic 'aptitude' for language as a real factor. Rather, research indicates that anyone can acquire/learn a new language IF...if...the conditions are right. Children *appear* to learn better than do adults because generally their conditions for doing so are more favorable (more time available to practice, play, learn in the language primarily; less anxiety about performing well). In fact, the only real intrinsic advantage children have over adults is in the area of

pronunciation.

Other important factors include personality and anxiety about the task (which can be reduced with appropriate methods and teaching techniques) and motivation.

Very important, too, are the teaching methodology used. The unregulated environment of foreign/English language teaching means that much, perhaps most, foreign language teaching is very poor-- (recall your own likely not terribly exciting or successful high school or college French, or German classes.)

When taught using principles of "Best Practice" (communicative approach, at a minimum; and of course the strong case I advocate for high-interest safety content), learners find that language acquisition/learning is not only successful, but dare I say it, fun.

Classroom training versus computer-based training

We have much less research on the use of computers in language learning, as the technology is still relatively new. Additionally, like all language training, computer-based language training is unregulated, with widely varying quality and effectiveness. An example of a very useful and effective *general* English computer-based language learning program, from my experience, is the Rosetta Stone program. In fact, of the dozen or so CBT general English programs with which I am familiar, Rosetta Stone is the *only* program I find useful, interesting, and effective.

However, computer-assisted language learning (CALL) *must* be an essential component of aviation English training, as one way to facilitate language learning while keeping pilots and controllers on the job. There is much language learning than can be facilitated via computer programs: vocabulary acquisition (through reading activities and games); fluency; grammar and structure acquisition, and certainly listening comprehension. So, in once sense, CALL is a great aid, and can reduce required classroom time, an important factor in aviation English training.

On the other hand, there are some aspects of CALL that do not readily lend themselves to the teaching of certain communicative aspects of the ICAO requirements: computer-based speaking or pronunciation activities are still fairly inadequate, for example. There is some research, in fact, which shows that people improve their pronunciation when they experience unsuccessful communication. That is, 'live feedback' is required for humans to modify their speech.

The 'newness' of such activities typically quickly wears off after only a few minutes, although users' initial fascination tends to be strong, particularly among people interested in technology and 'gadgets' (like pilots!)

Likely, the most effective programs will have a carefully planned integration of both classroom and computer-based training. In fact, computer learning can be used to prepare

the learners for the classroom training, greatly enhancing the effectiveness of valuable and scarce classroom training time.

Summary

The purpose of this document is to outline some of the many factors which impact how long it will take pilots and air traffic controllers to achieve ICAO Operational Level 4 English proficiency. As may perhaps be evident by this point, it is very difficult to pinpoint exactly how long any particular pilots or controller will take to achieve ICAO Operational Level 4. Nonetheless, that a significant effort will be required is inevitable.

A corporate perspective:

A final point, which I think will be evident after reviewing the information provided here: I believe it is important for key administrators across the industry to understand that achieving Operational Level 4 is neither very easy nor is it impossible.

It inevitably requires a mature individual and organizational commitment of time, effort, and resources. As much as some people would like to ignore or refute this fact, I feel very comfortable that it is true.

Instead of thinking in terms of a quick fix--which will not after all work--I believe it is healthier and more realistic to envision a long-term, continual process-improvement approach to incorporating English language training into the corporate flight training culture. The goal is improved levels of aviation safety; the effort required is not undue, is, in fact, overdue, and will result in not only greater safety but also greater efficiency.

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