

Draft 6

Title: The Anatomy of a “Warbird” Type Rating. Part I.
By Tim Jackson

We all know that if you are going to fly aircraft in the US National Airspace System that you are required to be certified to do so. That means being trained by someone certified to conduct the specific training and then at some point being evaluated, based on a known standard, the Practical Test Standards (PTS). Then if successful, you will be issued a temporary pilot certificate for the rating sought, followed by the permanent certificate arriving in the mail hopefully in less than 120 days. It is real easy to say all that, but it takes time, money, and a certain amount of drive and often a sacrifice of some kind, to accomplish this goal.

When you want a Private, Commercial, ATP certificate or wish to add a rating to your certificate, like an Instrument or Multi-engine rating, you will likely seek out a local flying school to get the task done. Flight schools owe their existence to providing quality training which should provide you with two things: one, they should instill in you the aeronautical knowledge and practical skills required to safely operate the aircraft for the rating sought, so you don't kill yourself or the people around you and two, fly to the standard required for the evaluation known as the practical test.

To accomplish this, a flight school will have some useable structure that will guide you from start to finish. They do this by having a staff of instructors, paid essentially by you, the student. Included in this structure and essential to a successful outcome is some form of ground school and flying curriculum that acts as a guide and provides skill level standards as training takes place. These training programs follow FAA guidance and are built so that you the student will succeed. In other words, they give you everything you need, all you have to do is perform.

What then do you do if you find yourself with the opportunity to fly a B-25 as Pilot-in-Command? Well guess what, you are going to need a Type Rating in the B-25. You will then be asking yourself where in the world am I going to get the training for that? There are no flight schools that provide B-25 training. I have at least part of the answer for you and it is the reason I'm writing this article.

Lets start with the actual reason that you need a type rating for this airplane in the first place. Most of us would call the B-25 a “warbird”, the FAA term is Vintage Aircraft. Either way, by definition, the B-25 is a Large Aircraft because it has a maximum certificated takeoff weight of over 12,500 pounds. The Type Certificate Data Sheet (TCDS) for the B-25 lists that weight at 34,000 lbs. 14 CFR (FAR) 61.31(a) is the regulatory guidance that says Large Aircraft require a type rating. In addition the type of Airworthiness Certificate plays a role. Most B-25's have an Airworthiness Certificates in the LIMITED category. This means that someone in the past had petitioned the FAA to issue a Type Certificate for the B-25. At least for certain models of the B-25. Therefore the FAA has determined that these certain models require a Type Rating for the PIC, and the designator that appears on your certificate is N-B25.

So if your B-25 or other “Large Warbird” has an Airworthiness Certificate issued in the LIMITED category, then you will need a type rating to act as PIC. If your Large Warbird has an Airworthiness Certificate issued in the EXPERIMENTAL category and is ineligible for a LIMITED category certificate, then you need to have it listed as an AUTHORIZED EXPERIMENTAL AIRCRAFT on your pilot certificate. I will cover the experimental aircraft in greater detail in a future article so for now lets stick with the type rating issues.

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So what prerequisites are there for you if you are planning on getting a type rating in a warbird, in our case a B-25? In general you need:

1. at least a 3rd class medical certificate, [61.39(4)]
2. at least a Private pilot certificate,
3. to hold or concurrently obtain an instrument rating that is appropriate to the category, class or type rating sought, [61.63(d)(1)]
4. to have received training that is appropriate to the aircraft category, class or type for the aircraft to be flown,
5. to have received the required endorsements from an instructor who is authorized to provide the required training.

A couple of questions should pop into your head right now, the first concerning item 3 above. Why in the world do you have to have an Instrument Rating if you are going to fly VFR in these “vintage” aircraft, especially if the airplane doesn’t have the instrumentation to fly IFR? The simplest answer I can give you is that this is a “pilot/people” rating, not an “aircraft/machine” rating and this rating is conducted at the ATP level, in terms of test standards [61.63(d)(4)], and ATP standards imply that you have an instrument rating.

The next question you might ask yourself concerns items 4 and 5 which involve training and the requirements of the person that can train you. There is plenty of information available when it comes to what needs to be learned/taught for a type rating. For starters, CFR 61.157(c) provides a general list of the areas of operations that you will be required to know. The Airline Transport Pilot and Type Rating Practical Test Standards (PTS), FAA-S-8081-5E, as amended, is helpful because it is a guide for the Examiner when conducting a practical test and is a must read for both you and your instructor. A free copy can be downloaded off the FAA’s website at http://www.faa.gov/education_research/testing/airmen/test_standards/pilot/.

A third reference is Advisory Circular 61.89E which provides a generic type rating curriculum that serves as a basis for instructors to develop a training program outline to meet the type rating training requirements. A free copy can be downloaded from the FAA website at [http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rqAdvisoryCircular.nsf/0/e6f473d2ab86c8cc86256ab600731af2/\\$FILE/Ac61-89e.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rqAdvisoryCircular.nsf/0/e6f473d2ab86c8cc86256ab600731af2/$FILE/Ac61-89e.pdf) As a “bonus”, at the back of the AC there is a listing of aircraft that require type ratings and the actual designation used by the FAA and put on your pilot certificate. This includes all the modern and “vintage” aircraft although I have noticed at least one warbird missing from the list.

Let me get a quick plug in for the FAA. If you haven’t visited their website at <http://www.faa.gov/>, please do so. Just about every document that the FAA has published is on this site somewhere and you can download whatever you want and have it in an electronic format. This is the place that you can also find the Type Certificate Data Sheet for the aircraft that you are trying to get typed in. We will get more into that subject in Part II of this series.

Back to the subject at hand. Items 4 and 5 go hand in hand since the person who trains you is more than likely going to be the person who will provide the required endorsement and that person is referred to as an “authorized instructor”.

The definition of an “authorized instructor” can be found in 61.1(b)(2) which reads; *A person who holds a current flight instructor certificate issued under Part 61 of this chapter when conducting ground training or flight training in accordance with the privileges and limitations of his or her flight instructor certificate.*

In this case we are referring to a CFI as an “authorized instructor”, lower case “a” and “i”. I mention this because there does exist an “Authorized Instructor” certificate, upper case “A” and “I”. An “Authorized Instructor” in this case may instruct in experimental aircraft for which no type designation exists and will be aircraft specific, but may not use that authority the way a CFI could. i.e. Training someone for a type rating.

Does that mean that any flight instructor can give you the training, especially if they are really bright? Once again the regulations provide the answer based on the instructors *privileges and limitations*.

First the Privileges.

61.193 FLIGHT INSTRUCTOR PRIVILEGES. *A person who holds a flight instructor certificate is authorized within the limitations of that person’s flight instructor certificate and ratings, to give training and endorsements that are required for and related to: (I won’t list the 9 items (a) through (j) but item (e) is: An aircraft rating. i.e. Type ratings. In reality this is a generic authorization to train people to be pilots at all levels.*

Now the Limitations.

61.195 FLIGHT INSTRUCTOR LIMITATIONS AND QUALIFICATIONS.

(b) Aircraft ratings. *A flight instructor may not conduct flight training in any aircraft for which the flight instructor does not hold:*

1. *A pilot certificate and flight instructor certificate with the applicable category and class ratings;*
and
2. *If appropriate, a type rating.*

And,

(e) Training in an aircraft that requires a type rating. *A flight instructor may not give flight training in an aircraft that requires the pilot in command to hold a type rating unless the flight instructor holds a type rating for that aircraft on his or her pilot certificate.* This would be a good place to mention that the CFI will also need to be “current” for that aircraft if he/she is going to occupy a pilot seat. With few exceptions, someone on the aircraft needs to be able to act as a legal PIC and that person is likely going to be the CFI conducting the training. So the CFI also will need to have a current Pilot Proficiency Check under Part 61.58.

It certainly appears then that the person who can/will give you the training required for a type rating has to be an authorized instructor (CFI) and that CFI requires a type rating in that aircraft.

A few words about the endorsement. At least three different sections of Part 61 mention the need for an endorsement when trained by an authorized instructor in order to be eligible for a practical test. These sections are Parts 61.39, 61.63 and 61.157 and they provide information about what the endorsement should reference and where it should be written, which is in your logbook or training record. For type ratings there is no requirement for the instructor to sign the back of the pilot application, form 8710-1, nor may the examiner accept the signature of the instructor on the 8710 in lieu of the logbook endorsement. It is certainly not wrong to have the instructor sign the back of the 8710-1 and it is highly recommended to have that done.

If you are an instructor providing the training and endorsement or the pilot applicant for the type rating, you need to know the following. If the pilot for the type rating has a private or commercial certificate then the Part 61 reference for the endorsement is 61.63(d)(2)&(3). A pilot who holds an ATP and is adding a Type Rating uses as a reference 61.157(b)(1)&(2).

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The endorsement should read something like this:

I certify that *Mr. Orville Crossfield*, certificate # 1234567, has received the training required by Part 61.157(b)(1)&2) for the addition of a N-B25 type rating.

12/22/2006. *Scott Wright*. 7654321CFI. Exp. 09/30/2007.

Now that you know what you need and why you need it, you still have to come up with an instructor and an examiner. Currently there is no one place you can go as a single resource to find an instructor. Most information about who can instruct is passed word of mouth either from the owner of the airplane or from friends who have already been down that road. If you find yourself looking for an instructor and getting no where fast, feel free to contact me by e-mail. This offer doesn't just apply to the B-25. Although I don't consider myself as having my finger on the pulse of the warbird industry, in general I am more involved in the training and examining end of things than your average warbird operator and I just might be able to help you. My e-mail address is WarbirdPlt@aol.com.

The Examiner issue is slightly easier to initiate due the existence of the National Designated Pilot Examiner Registry, NDPER for short. In this program there are a handful of experienced Pilot Examiners that can conduct type ratings and Pilot Proficiency Checks in virtually every vintage aircraft ever made that requires a type rating. A list of these examiners can be found on the Experimental Aircraft Association Warbirds website, <http://www.warbirds-aaa.org/programs/examiner.html>. There is certainly no requirement for having to use an NDPER but there are very few local Pilot Examiners for Vintage Aircraft and the number is decreasing. Here again I might be able to give you some information if you drop me a line.

It's disclaimer time. The information I just provided you is an attempt by me to help anyone needing a type rating in a warbird. Although I have been involved with this process since 1992 as the applicant, instructor or examiner, I don't consider myself the final authority. I also don't consider myself a very good writer. So if you have some heartburn with anything I've written, simply drop me a note with an explanation and we'll have some fun sorting it out.

Part II of this series will cover what is expected of you during the practical test and what you can do to prepare for it.

Good luck and maybe we will meet at an airshow some day.