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MAGAZINE

FROM WHEELS TO ROTORS

MARK BRERETON'S INSPIRATIONAL
STORY OF NEVER GIVING UP ON HIS
DREAM OF FLIGHT



SWEDISH ARMED FORCES
REACH 10,000 HOURS IN
BLACKHAWKS

UNDERSTANDING
AIRWORTHINESS
WRITING YOUR
PILOT RESUME



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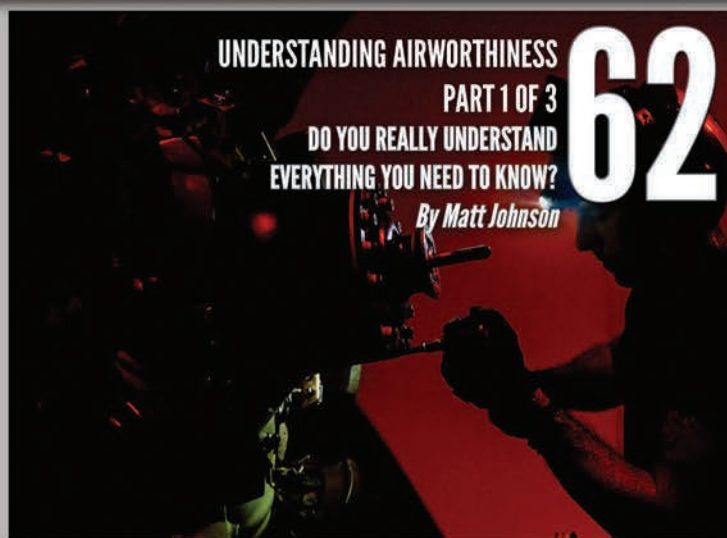
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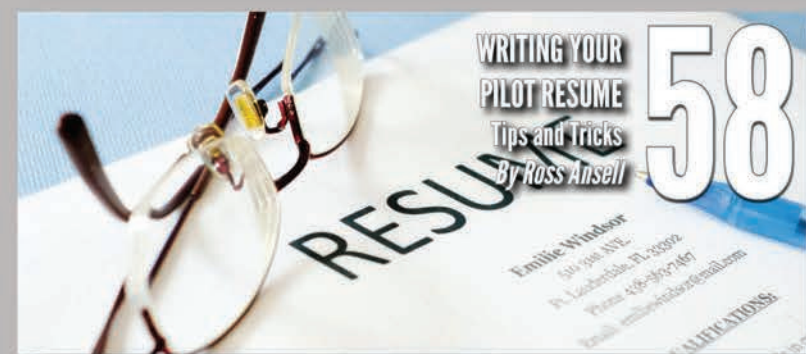
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UNDERSTANDING AIRWORTH

In this 3-part series on Understanding Airworthiness, Helicopter DPE Matt Johnson will shed some light on an often misunderstood and overlooked part of our everyday duties as a pilot in command; determining if our aircraft is

“If you test it they will teach it” -So goes the mantra heard every two years when Designated Pilot Examiners must attend a mandatory training program in order to maintain their Designated Examiner status. The idea is that if DPEs do a thorough job examining an applicant on a particular task this will in return prompt CFIs to do a better job teaching their students.

One area that I have encountered as a general weakness with applicants at all levels is that of airworthiness and understanding exactly what it means. The definition of “airworthy” is an elusive one for those that seek it out.

Much of what is known about the subject is passed on in the form of tribal knowledge. The meaning may take on two totally different views depending if the explanation is coming from a mechanic or a pilot. However, at the end of the day defining “airworthy” isn’t that difficult and there is only one true definition.

Why is this important?

One of the most important regulations that all pilots must be familiar with is that of 91.7. The title of this regulation is “Civil Aircraft Airworthiness”. Unlike most of the regulations we live by 91.7 is one that is

easy to read and comprehend. It has two simple statements, both of which must be taken to heart. The regulation reads as follows:

91.7 Civil Aircraft Airworthiness

- (a) *No person may operate a civil aircraft unless it is in an airworthy condition.*
(b) *The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight. The pilot in command shall discontinue the flight when unairworthy mechanical, electrical, or structural conditions occur.*

Why does this matter?

Note that in paragraph (a) of this regulation it specifically states that we may not operate a civil aircraft unless it is in an airworthy condition. Clear, cut and dry! Right?

While this regulation may read in the simplest of terms we come back to the point of defining “airworthy” and understanding exactly what it means. So how do we define the definition of airworthy? Where do we find it? Most pilots have some form of the go-to “FAR/AIM” book lying around (hopefully current) or even an app on their mobile

device. This is where we go for looking up regulations and just as importantly, where we find “definitions” for terms found within many of the regulations.

Most of the (general) definitions we need are found in FAR Part 1.1 but what about “airworthy”? Will you find a definition for this ever so important term in FAR Part 1.1? The answer is NO! What about going to the “index” in the rear of the book? NO! Still no indication of what “airworthy” actually means.

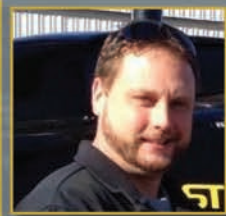
All applicants (and experienced pilots) agree that FAR 91.7 is important but when searching for what airworthy actually means they are at a loss. The definition will not be found in that standard FAR/AIM book that so many of us rely on.

FOUND!

The search is over. The answer for defining “airworthy” is, in fact, actually found within the regulations but in an area that very few pilots and probably even less students have ever reviewed. The regulation (definition) reads as follows: Airworthy means the aircraft conforms to its type design and is in a condition for safe operation.

AIRWORTHINESS

PART 1



Matt Johnson is a Helicopter FAA Designated Pilot Examiner, conducting Private through ATP level exams in numerous makes and models. His experience spans Air Medical, Law Enforcement, Flight Instruction, and ENG flying. Johnson is a three-time Master Instructor recipient, FAA Gold Seal Flight Instructor, USHST representative in the training working group, and FAASteam Representative for the Greater Cincinnati Ohio Region. Additionally, Matt is an Air-Medical Pilot flying a single-pilot IFR Helicopter in SW Ohio.

If you go to FAR 3.5 paragraph (a) you will find another set of “definitions”. First up on this list is “Airworthy”. The definition is simple, short and to the point. Essentially the definition gives us a two-pronged test to define the term airworthy. The second part of this definition is a mixture of common sense and adherence to other regulations by the pilot and is, at times, a judgement call.

“Conforming to its type design” requires a bit more explaining and we will do that next month in Part II of this series of articles on “Understanding Airworthiness”.