



AIRWORTHINESS

Rights, Responsibilities, and Common Sense

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I recently attended a FAAS Team Representative’s seminar, “Stand up to Error, Stand Down for Safety”. The seminar’s purpose was to discuss topics of interest to pilots and flight instructors that need to be reviewed as a reminder of how important it is to not take anything for granted, not to become too complacent, and to always pay attention to details and that little voice that says, “Something is not right”. One of the modules was titled, “Going Beyond the Preflight”. When we hear the word preflight we often think only of the “walk-around” performed just prior to getting into the plane for our trip around the pattern or a cross-country flight. But as stressed in the seminar, there is much more to it than that.

The luxury and enjoyment of personal flight is often taken for granted. We can easily become complacent and get too casual with the important details of safety. The freedom one feels getting into an airplane, whether rented, owned outright, or owned with one or more partners is indescribable. To be able to make a decision at the last second to drop by the airport and go for a flight or take a few days to plan a cross-country and enjoy a flying vacation is the privilege of a licensed pilot. There are very few endeavors that measure up to this personal freedom. But hold on for a moment, with that luxury comes some serious responsibilities. Not the least of which is verifying that the plane you fly is in fact, airworthy. And it is my goal in this discussion to help you understand that.

Are you an Aero Club member? Do you rent planes? Do you own an airplane? Have you had a Practical Test for a new certificate or rating, or a Flight Review or IPC recently? Do you routinely look at the airplane’s log books? How accessible are the airplane’s maintenance records? How complete are these records? Do you know what to look for? Do you know how to determine if an Airworthiness Directive is in compliance?

These questions need to be answered prior to a first flight in a given airplane and you should at least review the plane's current "status sheet" before each flight thereafter. There are many pilots who feel uneasy about asking to look at the log books feeling that they are questioning the authorized mechanic's integrity. Here is an excerpt from an article in the March/April issue of the FAA Safety Briefing Magazine; "Whatever the reason, too many pilots take aircraft maintenance record entries for granted. This unfortunate mindset can result in pilots missing critical information about the aircraft, not to mention the requirement for a pilot-in-command to verify airworthiness before a flight.* Bottom line: If you are flying an aircraft, you should be familiar with its log books." * *Emphasis by the author.*

Let me demonstrate this responsibility by describing a situation regarding maintenance records. This story is true, there are no names used and the location of the occurrence is omitted.

Recently a client came to me to finish his instrument training that had begun many years prior. Our first meeting was to review his personal log book, satisfy the TSA requirement to verify his US Citizenship, insert the appropriate endorsement into his log book and mine, review the course requirements, recommend the appropriate study material and devise a study plan. A date was set for his first flying lesson and a request was made for him to have the plane's log books available for my review as it is very unwise for a pilot or instructor to take an initial flight in a plane without first confirming the plane's airworthiness.

Shortly after our first meeting I received a phone call that the pilot/part owner was having some difficulty in obtaining the log books. "Why? I asked." It seems that the flying club's mechanic had the books and was reluctant to release them. Though this sounded a bit strange it is somewhat understandable because no one likes to risk losing a plane's maintenance records. This fact will seriously devalue a plane. So, it was decided that we would meet the mechanic at a time of his choosing to review the books together. According to the mechanic, he was very busy and due to go out of town for a period of time but he would provide a copy of the Pitot/Static and Transponder inspection because that is necessary for IFR training, and a copy of the Annual inspection. He stated that we did not need to see any more. That fact would be true if that were all that is necessary to

verify a plane's airworthiness. But, there is a much more to it than the Pitot/Static and Transponder inspection and the Annual.

Pilots normally receive instruction in reading maintenance records and locating the required entries during their primary flight training. The aircraft log books should contain a record of the most recent Annual Inspection signed by an A&P/IA. This is an Airframe and Power plant mechanic with an Inspection Authorization rating. Then if the plane is used for instruction for hire, (not personally owned) it must have a 100 hour inspection signed by an A&P or A&P/IA. Normally the ELT inspection is done during the annual and an entry is made noting the due date of the ELT's battery. In addition any Airworthiness Directives (ADs) need to be addressed. A record of applicable ADs, their effective date, required action and next due date - in the case of recurring ADs - may be kept in a separate place other than the log books. Anytime there is a change in the airplane such as new radios, a modification like gap-seals, installation of an engine model other than the factory installed one, or repairs as the result of an accident or incident, there needs to be a copy of Form 337 placed in the airplane's records. Any modification to the original equipment must be noted in the Weight and Balance documentation and an annotation made to the Equipment List. In the Airframe Log Book you can find the plane's total time in service and the engine time since overhaul will be noted in the Engine Log Book. The propeller has its own log book as well with applicable ADs noted there.

Airworthiness Directives are similar to a recall on a car, appliance, or piece of infant equipment for example. However, in the aviation environment, ADs are mandatory repair or replace notices and will have a time - expressed in hours in service or a specific date - for compliance attached. ADs are for your safety and if you are an airplane owner or you provide an airplane for hire for flight training for example, you are responsible to see that they are in compliance within the stated time period. Of course, an authorized mechanic is responsible for any required work to repair or replace a component named in an AD. As mentioned above, some ADs are recurring, meaning that they need to be addressed again within a stated time. An example of a recurring AD is the Cessna 152, 172, and 182 Seat Track issue. This AD compliance is repeated every

100 hours in service and a plane is not airworthy at the end of the 100 hours if the seat tract inspection is not completed and logged.

If you rent a plane from a Flight School, you are responsible to verify that the log books are current with all inspections including AD compliance prior to your first flight in a given plane. Often owner's and renters will include a Status Sheet with the last Annual Inspection, ELT battery due date, Pitot/Static and Transponder Inspection, and AD dates/hours listed so that, for repeated flights, you can simply look at this sheet and not have to review the log books.

To protect an aircraft's maintenance records, they are often kept in a secure place and never in an airplane. Lost records seriously devalue an aircraft and no one wants to think about that situation. However, log books should always be available for the asking and you should never think of your request to see them as a threat to the mechanics and his or her integrity and an A&P should not feel that their expertise is being questioned.

To continue with my story, my client and I never did get to see all of the records for his club's airplane. It seems that the mechanic believes that since there is no FAR that specifically states that the records must include an AD compliance record, he did not have to provide one. To me, having a compliance record is common sense. If an AD is applicable to a specific plane and the required action has been completed then there has to be a written record somewhere in the planes maintenance records. Otherwise, how is a pilot, instructor, FAA Inspector, or Designated Pilot Examiner or for that matter – in the case of an accident or incident – the NTSB or the plane's insurance provider supposed to know that the plane is airworthy?

Remember, the airworthiness of the aircraft that you are flying is your responsibility and your review of maintenance records is a right that comes with your Pilot's license.

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