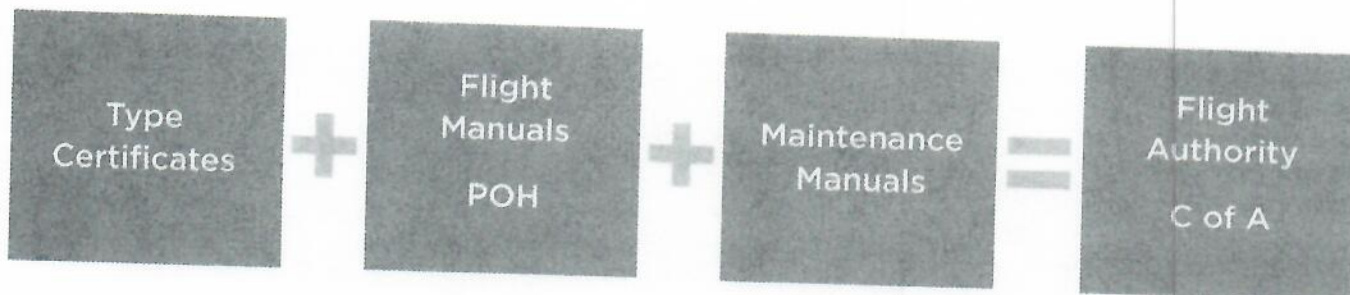


ROLE AND RESPONSIBILITIES OF THE AIRCRAFT OWNER

A SUMMARY OF REQUIREMENTS



This article is an abbreviated version of a lengthier paper by the same title available on the COPA website. That paper aims to discuss the role and responsibilities of private aircraft owners in General Aviation. It would appear that not all aircraft owners understand their role and responsibilities with respect to aircraft ownership. Aircraft maintenance is an area where this appears to be particularly evident. Maintenance constitutes an important aspect of aircraft ownership. An aircraft owner's role and responsibilities also constitute another important aspect of this relationship. Misunderstanding these aspects and their implications typically leads to uncomfortable situations that usually manifest themselves when the AME presents the owner with the invoice for the aircraft's annual inspection. Yet the owner is fully responsible for the maintenance of his aircraft; what, how often, how extensive, etc. The AME is responsible for the quality of the work done on the aircraft.

MAINTENANCE AND AIRWORTHINESS

Aircraft maintenance and the airworthiness of the aircraft are very closely related. In fact, the primary purpose of the aircraft maintenance, carried out in accordance with the Maintenance Manual defined by the aircraft manufacturer, is to ensure that the airworthiness

of the aircraft is maintained such that the condition of the aircraft is always in accordance with its Type Design. In accordance with CAR 101, airworthiness means in a fit and safe state for flight and in conformity with its Type Design. The aircraft's Flight Authority allows the aircraft to fly legally. This Flight Authority can exist under different forms, primarily as a Certificate of Airworthiness (C of A), or as a Special Certificate of Airworthiness (SC of A). Due to space constraints, this article will focus on the C of A. The reader is invited to visit COPA's website for further reading on the topic.

CERTIFICATE OF AIRWORTHINESS (C OF A)

The following diagram illustrates how Maintenance and Airworthiness relate to each other and what this means for the aircraft owner.

A certified aircraft is built to an approved design, otherwise known as an Approved Type Design. Eventually, after extensive and expensive developmental and certification flight-testing, this aircraft is certified and receives its Type Certificate. Aircraft manufactured in accordance with that Type Certificate are issued a Flight Authority, also known as a Certificate of Airworthiness, or C of A. Be aware though that the owner of the aircraft is responsible to ensure that the validity of the C of A is maintained, and

that there are circumstances where the C of A might lose its validity. And it is illegal to fly a certified aircraft without a valid C of A.

In order to facilitate the task of ensuring the continued validity of the C of A, the manufacturer provides a flight manual commonly known as the Aircraft Flight Manual (AFM) or the Pilot Operating Handbook (POH). These manuals guide the pilot in the operation of the aircraft and intend to ensure that the pilot always operates the aircraft within the limits of its design, or within the Flight Envelope. As the pilot operates the aircraft, within its flight envelope, wear and tear appear, degrading the condition and overall performance and reliability of the aircraft to the extent where the C of A could become invalid. Adequate maintenance of the aircraft is then required to maintain the validity of the C of A.

The manufacturer provides a Maintenance Manual to this effect. Regular maintenance performed in accordance with the Maintenance Manual protects the aircraft condition and performance from degrading to an unacceptable level with respect to its Type Design. In the event of failure of some component, the aircraft must be repaired in accordance with the Maintenance Manual. The maintenance of a certified aircraft is the domain of qualified and licensed personnel known as the Aircraft Maintenance Engineer or AME.

In addition to the routine maintenance discussed above, we also have scheduled inspections. The annual is one of these scheduled inspections and we will limit our discussion to this one. The annual is actually far more than just an opportunity to give our favourite AME a nice cheque. No matter how many hours our aircraft has flown during the year, be it zero hours or a few dozens of hours, and even if no snag appeared or no maintenance was required, or a lot of maintenance was required, the annual is still necessary.

Any maintenance carried out during the year addresses issues that require attention at the time. But numerous other items can and do degrade over time and they require attention. Any normal maintenance action might not typically address these issues. The manufacturer defines what the annual inspection must investigate and

address as appropriate. The AME is responsible to carry-out the annual as per the Manufacturer's instructions and sign-off the annual as per the CARs. The owner is responsible to tell

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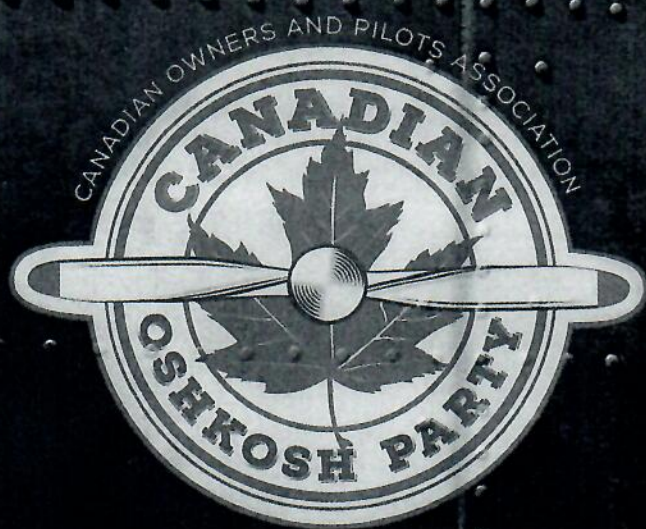
the AME what this owner wants the AME to do in excess of the annual.

Other than the normal use of the aircraft, a variety of events and circumstances can also invalidate the C

of A. The first instance that comes to mind is when the pilot does not operate the aircraft in accordance with the Pilot Operating Handbook (POH) or Aircraft Flight Manual (AFM). When a pilot does not respect the POH, that pilot operates the aircraft outside of the limitations defined in the Type Design, in a region where the aircraft has not been tested and certificated, or in other words outside of the area known as the Flight Envelope.

Any event such as exceeding speed limits, or some extreme maneuvering, could have a negative impact on the aircraft itself, potentially requiring maintenance. The AME who will inspect this aircraft will rely on the Maintenance Manual, published by the manufacturer. Bottom line, for a certificated aircraft to fly legally, it must have a valid Flight Authority usually referred to as a Certificate of Airworthiness or C of A. ☺

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