

## From the Tech Desk: Featured Article

### The MD-RA Inspection Process for Homebuilt Aircraft

By: Doug Murray

Frequently we hear of builders who have almost completed their project and then ask, "How and where do we register them?" Frequently we have builders purchase a partially built aircraft in the US and when importing it into Canada find out that their project fails to meet Canadian registration requirements. The following is a reduction of the MD-RA inspection process. We thank Doug Murray for supplying this material.

**Letter of Intent:** Before you start your project, you need to file a "Letter of Intent" with the MD-RA. This means that an official file is opened for your project. If you are building from a kit supplier, chances are pretty good that the kit has been approved by Transport Canada, as meeting the amateur-built requirements.

If you are buying a partially built airplane from someone, you will need a Bill-of-Sale or a release signed by the vender, giving the MD-RA permission to release information to you, the new purchaser. In the latter case make sure you list the make, model and serial number, so that a paper trail from the original manufacturer of the kit and materials can be followed. The intent is to verify the airplane as meeting the 51% rule during its construction. Download your Letter of Intent from the MD-RA website.

**51% Inspection:** If you are repairing an airplane, or re-building an airplane as an amateur-built, you will need to prove that the majority of the project is actually constructed by you. This inspection involves a series of check-off items that the inspector evaluates. If the total sum of checked off items shows the majority (51%) as under your construction, and the minority (49%) as pre-built, your project qualifies as amateur-built. If your project does not meet this rule, you will need to adjust your work plan to the point where it does.

If your project kit is from the list of eligible aircraft, you do not need to take this step. Request 51% inspection on-line.

*The intent is to verify the airplane as meeting the 51% rule during its construction*

**Pre-cover Inspection:** This inspection can apply to either components or sub-components such as a boxed spar. The intent is to have an inspector check any and all items before being covered, after which inspection becomes impossible. If this inspection passes, you can proceed with the aircraft.

There is one exception to this rule. If the sub-assembly is closed in the factory by the original kit-plane manufacturer, it is not subject to inspection. This does not apply to components of aircraft other than

those of the kit-plane manufacturer. Complete the on-line pre-cover inspection report and submit it with payment to the MD-RA.

*Covered assemblies or sub-assemblies for partially completed aircraft purchased and imported from the USA will not qualify as amateur-built in Canada.*

Covered assemblies or sub-assemblies for partially completed aircraft purchased and imported from the USA will not qualify as amateur-built in Canada, since the USA does not require a pre-cover inspection of their builders.

Note: Helicopters are subject to an interim inspection as well. Contact the MD-RA for additional information.

**Final Inspection:** The final inspection is done when the aircraft is fully complete, fuelled and in all aspects ready for flight. This means that you will have all placards attached, weight and balance report ready, fuel-flow test completed, and all access covers, cowling, etc. off for inspection.

Make your application for this inspection at least two months before the anticipated inspection date. This allows time for the MD-RA to issue the documents that you will need to apply for and receive your Certificate of Registration. You will also be sent additional documents to help you prepare your aircraft for the final inspection.

When you have received your C of R, you can arrange the inspection date with your appointed inspector. Upon inspection, you will be left with the Inspection Report, listing any deficiencies that you must confirm corrected by signature before your flight authority can be issued. When all deficiencies have been corrected, the inspector will forward your documentation to the MD-RA Chief, and he will issue the flight authority.

At this point your involvement with the MD-RA is done and you will now be dealing with Transport Canada for your region. The flight authority will authorize flight under special restrictions for phase one, or the first 25 hours. During this period you will explore the flight envelope of your aircraft under test conditions, including the 'climb test'. When you have completed phase one, you can apply to Transport Canada to have the flight restrictions removed.

#### Need more help?

Call 1-877-419-2111, 519-457-2909

Fax: 519-457-0980

e-mail [mdra@md-ra.com](mailto:mdra@md-ra.com)

## MD-RA Inspection....cont'd

### Inspection Fee Schedule:

Inspection	Fee	GST	Total
Information Package	\$13.75	\$0.96	\$14.71
Letter of Intent	38.50	2.70	41.20
51% Determination	164.00	18.48	282.48
Sub-Assembly	204.51	14.25	217.76
Pre-cover/Pre-paint	264.00	18.48	282.48
Final (includes \$220.00 for C of A)	660.00	46.20	706.20
Supplementary (re-visit) for any Inspection	143.00	10.01	153.01

All fees are collected by MD-RA Inspection Services. VISA, MasterCard, Postal/Bank Money Orders, or personal cheques.

Fees for travel are payable directly to the inspector at the rate of \$0.35/km traveled.

GST Number 899959118

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