

Continuing Airworthiness Notice – 05-003



Cessna SID Compliance

4 September 2012

Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91.

The contents of this notice are ADVISORY ONLY and are NOT MANDATORY.

CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability: All Cessna 100 and 200 series aircraft

Purpose:

The purpose of this advisory is to provide guidance for aircraft operators and maintenance providers regarding compliance with published Cessna Supplementary Inspection Document (SID) requirements.

Background:

With most Cessna aircraft now operating well beyond their original design life, Cessna published SID inspection requirements additional to the aircraft maintenance manual requirements.

CAA rule 91.603(a)(1) requires an operator to ensure an aircraft is maintained in an *airworthy condition*. To achieve an *airworthy condition* follow the applicable definitions in Part 1 –

- **Instructions for continued airworthiness** (ICA's) means current *airworthiness data* provided by the manufacturer of an aeronautical product, a product, or a component, and include any related airworthiness limitations mandated by the airworthiness authority of the State of Design.
- **Airworthiness data** means any information necessary to ensure an aeronautical product or a product or a component can be maintained in an *airworthy condition*
- **Airworthy condition** means the condition of an aircraft, including its components, fuel, and other materials and substances essential to the manufacture and operation of the aircraft that complies with all the requirements prescribed by the Civil Aviation Rules relating to design, manufacture, maintenance, modification, repair and safety.

Therefore, for an operator to maintain an aircraft in an *airworthy condition*, they must comply with all available Cessna ICA's including SIDs; the information assessed for applicability, actioned accordingly and actions recorded in the maintenance logbook.

Compliance expectation:

While inspection requirements are essentially the same for same aircraft models (for example C172) there can be a wide variation of inspection requirements between different aircraft models within the same series.

Considerations to be taken in to account are aircraft time in service, calendar time since new, any major repairs or rebuilds carried out on the aircraft or previous application of corrosion prevention products.

Note

The aircraft series SID inspection publication is an extensive document requiring in-depth research to extract applicable individual SID inspections for each aircraft.

Once the individual SID inspections are identified, logbooks are to be researched for service information compliance, total time in service and calendar time in service for applicability to individual aircraft.

Note

If a specific airframe component has been replaced, the component is to be inspected, based on total component hours or calendar time requirements. However, any attachment structure that was not replaced when the component was replaced must be inspected, based on the total airframe hours or calendar time requirements. Inspections are due at the lessor of specified flight hours or calendar time.

(Reference Cessna Model 100 series 2A-13-00 page 5 paragraph 7.C)

Where it has been determined a SID inspection is not required as a result of component replacement this must be fully documented in the work records.

In determining SID inspections required as result of total time in service or calendar time in service for each aircraft, all applicable Service Bulletins are to be available.

Embodiment of the Service Bulletin and/or associated parts thereof, is entirely dependent on the specific instructions detailed in the content of each individual SID.

It is noteworthy that a number of specific SIDs only require actual embodiment of Service Kit mod/repair or parts if cracking is found. It is also noted that embodiment of some Service Kit mod/repair or parts detailed in some specific SIDs, terminate the repeat inspection requirements.

In such cases, the decision whether or not to incorporate the Service Kit mod/repair or parts should be made by the owner/operator in conjunction with their maintenance provider, and the decision documented accordingly.

Reference should also be made to CAA Continuing Airworthiness Notice 05-002 on Service Bulletin compliance requirements.

Where a SID document refers to Federal Aviation Regulations; this is to be read as NZ Civil Aviation Rules and Airworthiness Directives as NZ Airworthiness Directives in accordance with NZCAR Part 39.

Note

It is CAA's expectation the initial SID inspection of each aircraft is considered a workshop project with an associated management plan, not a larger than normal routine inspection.

Recording of inspection results:

It is important results of SID inspections are recorded in an **objective** manner. One method is to photograph the areas where the inspection is being performed. This should be done regardless of whether the area is free (or not) of corrosion or cracking. If the area is corroded or cracked this is to be photographed and again after approved repairs or replacement has been carried out. It is recommended photographs are digital (if possible; picture identification number, date/time stamped, specific associated SID inspection and referenced to the work record/sheet) and recorded to a data stick or CD for future reference and kept as part of the aircraft work records.

NDT requirements are to be carried out strictly in accordance with the SID requirement by a person with appropriately approved NDT qualification.

Cessna Discrepancy Reports are to be completed and forwarded to Cessna in accordance with the SID publication. In addition, a copy of the Cessna Discrepancy Report is to be forwarded to CAA (attached to a CA005D) in accordance with Part 12 reporting.

Transition periods:

Cessna **200 series** aircraft: all required SID inspections must be completed by **31 Dec 2013** (2A-14-00 page 1).

Cessna **100 series** aircraft: all required SID inspections must be completed by **30 June 2014** (2A-13-00 page 5).

Note: 2A-14-31 Engine Mount inspection by 30 June 2015 or next engine overhaul.

The additional SID inspection requirements are incorporated into the specific aircraft *Instructions for Continued Airworthiness* (ICAs). Operators must ensure compliance with the SID inspection prior to the dates above or the aircraft is deemed to be unairworthy and cannot be flown. (refer 'Background' above).

Enquiries:

All enquiries regarding this CAN may be directed to John Bushell, General Aviation Airworthiness Team Leader at John.Bushell@caa.govt.nz