



Educational & Technical Center
Santa Maria Public Airport
P.O. Box 5817
Santa Maria, California 93456

(805) 922-2580
FAX (805) 922-7249
www.cessna.org

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To: Paul Nguyen
Aerospace Engineer
Federal Aviation Administration
Wichita Aircraft Certification Office
1801 Airport Road
Wichita Kansas 67209

From: Tom Carr
Technical Representative
Cessna Pilots Association
3409 Corsair Circle
Santa Maria CA 93455

Cessna Pilots Association Comments to the Airworthiness Concern Sheet dated 11/08/2001

Dear Mr. Nguyen

After receiving comments from several Cessna Pilots Association (CPA) members and upon reviewing the current AD 79-10-15 with several fleet operators of the affected models, CPA has gathered the following data.

Affected Models

There are 169 model 411 and 411A still on the FAA registration. There are 90 model 401, 76 model 401A and 51 model 401B still on the FAA registration. There are 53 model 402, 52 model 402A and 288 model 402B still on the FAA registration.

Actually they're probably even less than these numbers due to the delay in non-flying airplanes being removed from the FAA registration.

CPA could not find any large scale, more than 4 airplanes; operators using the 411 and 411A model airplanes. The airframe total times of these airplanes was found to be well below the 5500-hour time required for the initial inspection so any reports of the inspections required in AD 79-10-15 could not be obtained from the members surveyed, as they have not yet done the inspections.

CPA received reports from 401A and 402B operators with airframe total times ranging from 8,000 hours to 16,500 hours. The majority was using 402B models in commercial operation flying passengers for hire as scenic flights or commuter service. The most common flight regime was 8 passengers near gross weight conditions. With the amount of hours being put on these airplanes, their flight loads and constant mission operations, CPA felt the information received from these operators on the AD 79-10-15 inspections would be a valid survey whose results would reflect the overall fleet of affected airplane models.

AD 79-10-15

Once the initial inspection modifications to the airframe are accomplished, the cost of the recurring inspection for the A, B, and C areas ranged from \$250 to \$700 when all three areas were done at the same time. The C area only inspection, which is recurring every 400 hours, cost was reported in the \$250 to \$500 range. The shops that had their own NDI inspection equipment and trained personnel had the lower cost. When advised of the proposed AD the respondents queried why a new AD as the inspection procedures are not overly expensive or burdensome and appear to be working. The NDI inspection companies CPA contacted reported very few cracks, 2 in 15 years of inspections. The ACS states that Cessna had received reports of five airplanes with cracks that were found "before wing separation occurred". The first comment CPA would like to make is it appears the inspection called out in

AD79-10-15 is working. Since all the Cessna reported airplanes were either 402 or 402A models with times, 8,000 to 16,000 hours, it would stand to reason they were being operated in a more severe type of operation, but again the cracks were found using the now in effect inspection procedure.

ME79-16 Revision 4

AD79-10-15 requires the inspection to be accomplished in accordance with ME 79-16 Revision 3. The current revision to ME 79-16 is Revision 4, and the new bulletins MEB01-6 and MEB01-7 supersede ME79-16R4. It should be noted that there is not inspection procedure in the new bulletins for the A, B and C areas. On the aircraft with the reported cracks, all the cracks were in the C area. The ACS states "Cessna does not feel a new NDI procedure can be developed to find a crack before it reaches critical length". CPA was told from the NDI companies contacted that the C area was not difficult to do but required some experience level as there are areas where skins lap that could present a false indication. Another comment was, a thorough understanding of the operation of the eddy current equipment being used. In ME79-16R4 there is no requirement for the level of qualifications needed by the person doing the eddy current inspection, just a procedure for setting up the tester. The service kit instructions for SK402-46 and SK411-59, which are part of the new bulletins MEB01-6 and MEB01-7, calls for a Level II certified inspector. The equipment required is listed in MEB01-6 and MEB01-7 as an NDT-19ell or equivalent, which is a different model tester listed in ME79-16R4 but the wording "or equivalent" is also there. Since ME79-16R4 came out in September 26, 1980 there have been improvements in the eddy current test equipment. Requiring an experienced certified operator to do the inspection should help assure any cracks are found before they reach critical length. Another CPA comment would be to revise the current AD to require a Level II certified inspector with experience in the area A, B and C inspections and making sure the "or equivalent" equipment is up to current industry standards.

In Summary

From the reports CPA received from fleet operators of the affected models, they would be hard pressed to say they would be able to spend \$30,000 to \$40,000 per airplane to install the spar strap kits called out in the new bulletins. An operator putting a 1000 hours per year on one of the affected models will spend \$1400 or less for an A and B area inspection and two C area inspections. The fact that the inspection time interval increases to 20,000 hours for the C area is really not a consideration. The common reply to that hour increase was, to put another 20,000 hours on the airplane would take 20 years or more depending on the yearly hours accumulated. Prior to that time limit of 20 years coming, the complete airplane would have lost the cost effectiveness of trying to keep it on the flight line. Also, in 15 to 20 years the market the affected aircraft are being use for would certainly change and possibly even eliminating it from being in service. With the current inspection procedures they feel there is a high level of safety with the ability to find a crack in the spar cap should one show up.

Cessna Pilots Association Comments

CPA feels adding the requirements for a Level II NDI certified and experienced inspector would help ensure a crack being found before it became critical. The installation of the spar strap kits should not be made mandatory by any revision of AD79-10-15. An owner/operator should have the option to install the spar strap kit if desired and take advantage of the higher inspection times allowed under the AMOC issued August 13, 2001, or continue on with the 1000 hour inspection of areas A and B and the 400 hour inspection of area C. AD79-10-15 requested, but not mandated, mechanics and owner/operators to send the results of the initial inspections to Cessna so they could monitor the inspection program. With 6 reported cases out of the total fleet, CPA would have to agree with the fleet operators and NDI inspectors surveyed that the current inspection procedures when done correctly appear to be working. **CPA sees no need to supersede the existing AD79-10-15, as there is no data to indicate cracks are not being found as per the current required inspection.**

Respectively submitted
Tom Carr
Technical Representative
Cessna Pilots Association