



February 4, 2019

Docket Operations, M-30  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Room W12-140  
West Building Ground Floor  
Washington, D.C. 20590

**RE: FAA proposed Airworthiness Directive; Piper Aircraft, Inc. Model PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-181, PA-28-235, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-32-260, and PA-32-300 airplanes. Docket No. FAA-2018-1046; Product Identifier 2018-CE-049-AD**

To whom it may concern,

The Aircraft Owners and Pilots Association (AOPA), the world's largest aviation membership association, offers the following comments on the Federal Aviation Administration's (FAA) proposed new airworthiness directive (AD) for certain Piper Aircraft, Inc. models of PA-28 and PA-32 airplanes.

On December 21, 2018, the FAA published a Notice of Proposed Rulemaking (NPRM) to adopt a new AD for an estimated 19,696 Piper model PA-28 and PA-32 airplanes. The proposed corrective action would require calculating a factored service hours for each main wing spar to determine if an inspection is required, inspect the lower main wing spar bolt holes for cracks, and replace any cracked main wing spar(s).

With the number of affected aircraft models, AOPA believed that a 45-day comment period was insufficient to fully evaluate the proposal, its costs and impacts, and ultimately provide the agency with informed and beneficial feedback. On January 8, 2019, AOPA requested an additional 45-day extension to the comment period. With no official response to that request, we are compelled to submit the following, somewhat limited, comments and concerns regarding the agency's proposal.

#### **MORE TIME NEEDED**

First, and most importantly, we reiterate our request for additional time – not only for review and comment but also for the NTSB to conclude its investigation, report, and findings related to an April 4, 2018 Piper PA-28R-201 fatal accident (NTSB Accident Number: ERA18FA120). That accident is widely believed to be the driving force behind the proposed AD, likely figured into the FAA's safety risk assessment and corrective action review board, but strangely is not mentioned in the NPRM. In order to properly identify the root cause of that failure and work together to come up with a targeted and effective mitigations, the proposed AD should be delayed until after the NTSB has concluded its investigation and issued any recommendations. After which, AOPA encourages the agency to initiate the Airworthiness Concern Sheet process to engage and collaborate with stakeholders, including AOPA, Piper Aircraft, Inc. and others, to target and implement mitigations.

#### **INTERIM ACTION NOT APPROPRIATE**

In its proposal the FAA notes that it considers the AD an interim action and, based on reports and additional data, may take further rulemaking action. AOPA considers an intrusive and expensive



exploratory action for nearly 20,000 aircraft to be inappropriate – especially one that is based on one report of a fatigue crack and an incomplete NTSB investigation. We believe there are less onerous and effective methods to alert aircraft owners of an airworthiness concern, including an Airworthiness Concern Sheet, manufacturer Service Bulletins, and/or Special Airworthiness Information Bulletin (SAIB) – all of which can be used to solicit data and inform corrective actions. AOPA offers our full support and assistance in any of those efforts.

### **POSSIBLE ADVERSE SAFETY IMPACTS**

As with any corrective action, especially one involving removal and inspection of spar attachment bolts, we must be cognizant of any adverse impacts to safety and/or airworthiness. The removal of the outboard lower wing to fuselage spar attachment bolts is not a regular maintenance activity and would require a certain level of precision and expertise, working in a tight area around the wing spar. With that activity, performed on tens of thousands of wings, the potential for unintended damage will be introduced. That potential and adverse ramifications must be fully explored and guarded against.

### **REVISED FACTORED TIME IN SERVICE FORMULA NEEDED**

AOPA has received numerous calls and concerns from affected members regarding the FAA's factored service hour formula, calculation, and applicability. The formula, as proposed, has created a lot of concern with aircraft owners whose annual inspections are recorded as "100-hour inspection/annual" – a common practice, in the field. The factored time in service formula should have an ability to account for these types of records. AOPA further recommends the FAA have an allowance for aircraft that are on a progressive inspection program.

Additionally, although outside of its direct control, the FAA should take into account and consider the impact on international operators of affected aircraft – which often have mandatory 100-hour inspections, regardless of type of operation. If foreign civil aviation authorities were to subsequently adopt the AD, the formula would simply not work, as intended, for those aircraft owners.

Lastly, with the number and age of affected aircraft, we would encourage the FAA to consider an alternative formula for aircraft that have some limited portion of missing records rather than automatically require the inspection.

### **ESTIMATED COSTS INACCURATE AND AVAILABLE FACILITIES UNKNOWN**

All of the estimated 19,696 airplanes would be required to review their maintenance records and calculate the factored service hours. The FAA estimated that review to take two hours, at a cost of \$85 per hour, for a total of \$170. AOPA contends, with the age of aircraft, often several decades old, that review will likely take additional time in order to complete and should be factored into the agency's estimate.

Regarding the estimated 1.5 hours to inspect the lower main wing spar, we estimate the cost of a trained NDI technician to be significantly more than \$85 per hour. Additionally, we feel the FAA should take into account the availability of both trained NDI personnel and facilities throughout the country. If finalized as proposed, aircraft owners will need to travel significant distances in order to locate and complete the required inspections.

Lastly, in our limited review of facilities and costs, we consider the agency's estimated cost to replace a main wing spar to be woefully inaccurate. AOPA will continue to explore an accurate, real-world cost estimate and share any information.



## SCOPE AND MODEL APPLICABILITY TOO BROAD

AOPA supports Piper Aircraft, Inc.'s position that the proposed affected aircraft models represent an overly broad selection of applicable aircraft. It is somewhat concerning that the FAA rejected several proposed service publication drafts produced by Piper Aircraft, Inc., which would have inspected the area of interest in detail on a more representative and limited group of aircraft - similar to the April 4<sup>th</sup> accident aircraft.

Furthermore, AOPA supports Piper Aircraft, Inc.'s recommendation to publish an SAIB to gather data on a representative sample of only the following aircraft and serial number ranges:

- PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T
  - All serial numbers for each model listed
- PA-28-235
  - All serial numbers
- PA-32-260 and PA-32-300 airplanes
  - 32-40000 through 32-7840202

In this case, the aircraft manufacturer, with the technical expertise and vested interest in the continued operational safety of its aircraft, stated that the various design factors, loads, and fatigue spectrum do not warrant invasive and potentially damaging inspections on all the proposed models. AOPA believes that, based upon that recommendation, the FAA should look at the proposed model list, evaluate their respective design loads and fatigue spectrum and revise as needed.

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For the reasons stated above, AOPA recommends the FAA delay this AD until after the NTSB concludes its investigation; issue a SAIB to further investigate this airworthiness concern and gather data; and initiate the Airworthiness Concern Sheet process to engage the manufacturer and industry stakeholders, prior to any future corrective action – resulting in a more informed, accurate and effective mitigation.

AOPA appreciates the opportunity to provide comments on the FAA's proposal and stands ready, willing, and able to assist in any way possible to best mitigate the airworthiness concern while maintaining the safety of the affected fleet.

Sincerely,

David Oord  
Senior Director, Regulatory Affairs