



121 North Henry Street
Alexandria, VA 22314-2903
T: 703 739 9543 F: 703 739 9488
arsa@arsa.org www.arsa.org

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U.S. Department of Transportation
Docket Operations, M-30
West Building Ground Floor
Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

RE: Federal Register Vol. 78, No. 155 (Aug. 12, 2013) FR Doc No: 2013-19414
Docket No. FAA-2012-0002; Directorate Identifier 2011-NE-42-AD
Airworthiness Directives; Continental Motors, Inc. Reciprocating Engines
Notice of Proposed Rulemaking (NPRM)

The Aeronautical Repair Station Association (ARSA) respectfully submits the following comments to the above referenced notice of proposed rulemaking (NPRM) and asks that the Federal Aviation Administration (FAA) withdraw the proposal immediately.

Due to the heavily regulated nature of the aviation industry, ARSA members are negatively impacted when government agencies fail to comply with congressional mandates, internal guidelines, and executive orders. When small entities are involved, the repercussions from improper government action are even greater. Although ARSA represents a wide cross-section of the aviation industry, the vast majority of its members are small businesses.¹ Nearly three quarters employ fewer than 50 people, well under the established limit, and almost half of the businesses are owned by a single individual or family.

The FAA disregarded the most basic requirements for promulgating a regulation, let alone an Airworthiness Directive. The agency failed to comply with mandates contained in the Airworthiness Directives Manual, Administrative Procedure Act, Regulatory Flexibility Act (RFA)² (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA))³, and the FAA's own internal guidance and policies.

Failure to Establish Basis for Airworthiness Directive (AD)

The FAA fails to establish, or even discuss, the most basic requirement for issuance of an Airworthiness Directive: an objective violation of its published airworthiness standards. Before an unsafe condition can be found, the agency must determine there is a flaw in compliance with 14 CFR part 21 for manufacturing an airworthy article and/or an error in showing compliance with the applicable portions of 14 CFR part 33 design standards. After that initial step is taken,

¹ 13 CFR § 121.201 (identifying Small Business Administration (SBA) size standard for aircraft engine and engine parts manufacturing no more than 1000 employees).

² 5 U.S.C. § 601 et seq.

³ Pub. L.104-121, Title II, II0 Stat. 857 (1996) (codified in various sections of 5 U.S.C. § 601 et. seq.).

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the agency must then determine whether that basic failure rises to the level of an unsafe condition.

The agency's Airworthiness Directives Manual (FAA-IR-M-8040.1C), dated May 17, 2010, was created to ensure these important rulemakings were based upon sound information and reasoned judgment. That document states the docket "must include enough information to support the AD action" and "FAA reports, summaries or lists of facts, data, or reports that support the AD action." The agency has failed to provide supporting documentation to substantiate the conclusion that (1) the basic requirements of parts 21 and/or 33 were not met and (2) due to that deficiency, an unsafe condition exists.

Not only is the data in the docket merely a comparison between two design approval holders, it does not contain all the information in the agency's possession at the time it was promulgating the proposal. The association is aware of at least one major general aviation entity that presented data to the FAA concluding the likelihood of cylinder separation is extremely improbable.⁴ Yet, this information was never posted to the docket -- a clear deficiency by the agency.

The agency's failure to provide objective, substantiated engineering data to support its findings is fatal to the proposed rulemaking and, by itself, justifies withdrawal of the notice. The FAA does not establish an unsafe condition; rather, it asserts that cylinders in reciprocating engines crack—this condition is neither unsafe nor unique to the company's products.

As a matter of law, the FAA cannot establish that the cylinders should be subject to this regulatory action, so it has resorted to scare tactics and attempts to tarnish the reputation of those providing information to the docket contradicting the agency's conclusions. In fact, the information provided to the docket contains veiled threats and disparaging assertions about the Part Manufacturer Approval Holder (PMAH) in this situation.

Specifically, ID: FAA-2012-0002-0430; Doc 3 – Cylinder Failure White Paper – Final June 17, 2013 includes unsupported conclusions based upon invalid comparisons between the type certificate holder's cylinders and the PMAH design. When the PMAH provided objectively created engineering data and information based upon publically available information in the agency's Service Difficulty Reporting (SDR) system, the FAA vilified its own requirements and the PMAH's evaluation.

Indeed, the "independent review" goes on to make recommendations based upon the belief the PMAH may not have the wherewithal to hold its design approval because the certificate holder disagreed with the agency's method of evaluation and review. These tactics not only create distrust among and between certificate holders and the agency; it discourages persons from providing valuable information to dockets and decrease the agency's ability to ensure aviation safety.

⁴ See http://www.ramaircraft.com/Cylinder_Facts_Print.pdf.

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Disregard of the Administrative Procedure Act (APA)

Under the APA an agency must establish the basis for its conclusion, *i.e.*, that an unsafe condition exists, in the public docket.⁵ The APA requires that “the agency shall give interested persons an opportunity to participate in the rulemaking through submission of written data, views or arguments with or without opportunity for oral presentation.”⁶ Courts agree this requirement demands that agencies allow meaningful participation; the FAA must provide notice of the data and/or studies relied upon in the rulemaking.⁷

In this matter, the FAA has neglected to provide proper technical records and valid justifications to substantiate its proposal. In fact, when the NPRM was first issued on Aug. 12, 2013, the agency failed to provide any technical data to substantiate its claims that an unsafe condition exists. It wasn’t until Sept. 20, 2013 that technical data was added to the *Federal Register*. Even then, the data provided did not substantiate the conclusion that an unsafe condition exists. Without objective evidence, the proposed action is arbitrary and capricious on its face and should be withdrawn.

Failure to Comply with RFA Small Businesses Protections & Internal Guidelines

The preamble indicates the certification for compliance with the RFA is in accordance with the Department of Transportation (DOT) Policies and Procedures for Implementing Executive Order 13272, “Proper Consideration of Small Entities in Agency Rulemaking.” The docket does not contain the data and information required by the DOT implementation procedures for Executive Order 13272, which references the RFA and the department’s own internal guidance.

Despite its statement in the proposal, the agency’s “regulatory finding” that this rule will not have a significant economic impact under the RFA is objectionable and unsupported. An initial regulatory flexibility analysis must be conducted at the time a proposed rule is published in the *Federal Register*.⁸ While an agency may determine a rule will not have a significant economic impact on a substantial number of small entities, the certification must include a statement providing the factual basis for the conclusion.

That certification must be published in the *Federal Register* at the time the proposed rule is available for public comment. To obtain public comments, the agency’s reasoning and assumptions underlying its decision should be unambiguous and include a description of the affected entities and an estimate of the cost on small businesses that clearly justifies the certification.⁹

The rudimentary economic data provided by the agency is inadequate, inaccurate, and unsubstantiated. As Appendix A details, the FAA significantly underestimated the number of

⁵ 5 U.S.C. Chapter 5, Subchapter II.

⁶ 5 U.S.C. § 553(c).

⁷ See, among other cases, United States v. Nova Scotia Food Products Corp., 568 F.2d 240, 251 (2d Cir. 1977), Portland Cement Ass’n v. Ruckelshaus, 486 F.2d 375, 393 (D.C. Cir. 1973), and Chamber of Commerce of U.S. v. S.E.C., 443 F.3d 890, 899 (D.C. Cir. 2006).

⁸ 5 U.S.C. § 603.

⁹ 5 U.S.C. § 605.

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engines, the labor expense, and cost of replacement cylinders impacted by the proposed AD; the regulation will generate well over \$100 million in compliance costs.

Finally, there is no doubt the FAA's proposal exclusively impacts small businesses; in fact, merely having the NPRM in the public realm is impairing such entities.

- Most owners and operators of the general aviation aircraft within which the engines and cylinders at issue are used are either sole proprietors or involved in small businesses. A simple search of the aircraft in the agency's registry would reveal that many are owned by small businesses or individuals that use the aircraft in their small business.
- Individual mechanics who work on general aviation aircraft for compensation or hire are either sole proprietors or involved in small businesses.
- The vast majority of repair stations that work on the engines and cylinders are small businesses.
- The company that produced the cylinders at issue is a small business.

Expectation of Compliance with the Congressional Review Act (CRA)

Under the CRA, Congress is given the ability to review final rules and formally disprove them.¹⁰ The CRA requires federal agencies to submit final rules to the U.S. House of Representatives, the U.S. Senate, and Government Accountability Office (GAO) before the regulations can take effect. However, the CRA mandates "major rules" receive stricter congressional scrutiny and are permitted extended review.

Upon finalizing the rule, the agency must comply with all of the CRA's reporting requirements outlined in 5 U.S.C. § 804(2)), including submitting it to both chambers of Congress so a thorough and complete congressional review is conducted of this "major rule."

Conclusion

The FAA has failed to follow the most basic requirements for promulgating a regulation and consequently has grossly underestimated the impact on small businesses. In a nutshell, the agency disregarded laws, internal guidelines, and executive orders; it did not provide the correct technical data and/or conduct the economic analysis as part of the referenced proposal.

Due to the agency's complete indifference to the law and its own guidance, it needs to withdraw the proposal immediately.

Sincerely,



Daniel B. Fisher
Vice President of Legislative Affairs

¹⁰ 5 U.S.C. §§ 801-808.

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Appendix A: FAA vs. Industry Regulatory Evaluation

FAA Regulatory Evaluation

	Works hours (include access, testing, and close up)	Labor costs (\$85 per hour)	Parts Cost	Total Cost (labor plus parts)	Number of U.S. registered products	Total Cost for U.S. fleet
Replacement of all 6 ECi Cylinders	18	\$1,530	\$10,200	\$11,730	6,000	\$70,380,000
For each engine, cylinder visual, compression test, and leak check - 4 times the first year	24	\$2,040	0	\$2,040	6,000	\$12,240,000
Total Costs of Compliance for U.S. Fleet						\$82,620,000

Industry Regulatory Evaluation

	Works hours (include access, testing, and close up)	Labor costs (\$85 per hour)	Parts Cost	Total Cost (labor plus parts)	Number of U.S. registered products ¹	Total Cost for U.S. fleet
Inspection of Log Books	1	\$85	0	\$85	11,000	\$93,500
Replacement of all 6 ECi Cylinders	32 ²	\$2,720	\$10,200	\$12,920	6,000	\$77,520,000
For each engine, cylinder visual, compression test, and leak check - 4 times the first year	24/year	\$2,040	0	\$2,040	6,000	\$25,500,000 ³
Loss of Use						\$75,000,000 ⁴
Total Costs of Compliance for U.S. Fleet						\$178,113,500

¹ Conservative estimate, not including engines not currently on airplanes. Of 11,000 airplanes, 75 percent are estimated to be single-engine (8,250) and the rest are twin-engine (2,750) which will need 12 cylinders replaced.

² Based on OEM Labor Allowance avg (28 hours for IO-520 series and 36 hours for TSIO-520 series installations).

³ The NPRM estimates that the inspection would take six hours at 85.00/hour and that each engine would be inspected four times per year (6 hrs x 85.00/hr x 4 inspections =2040.00). The NPRM requires the inspection every 50 hours and assumes there would be four per year; consequently, the NPRM asserts each engine would fly 200 hours per year. It would then take 2.5 years of repetitive inspections to get to the 1000 hour retirement point. The cost of the repetitive inspections would then add \$5100 to cost (\$2040.00 annual inspection cost x 2.5 years) to each affected engine. The fewest possible engines affected (assuming six cylinders per engine) is 5000; thus, the repetitive inspections add \$25,500,000 to the cost of complying with the AD.

⁴ Assuming the value of each plane is \$200,000, it is estimated that the each plane depreciates over 20 years, which is an average of \$10,000/year. According to information provided by the FAA to the docket, the market currently produces about 25,000 520-style cylinders per year. Assuming the market doubles its capacity within six to 12 months, it will take up to 18 months to replace 30,000 additional cylinders above typical demand. Therefore, the average plane will be out of service for nine months costing industry \$75,000,000 based off 11,000 affected planes.