



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Airworthiness Approval for Aircraft Forward-Looking Windshear and Turbulence Radar Systems

AGENCY: Federal Aviation Administration (FAA), DOT

ACTION: Request for comment.

SUMMARY: This notice announces the proposed development of an advisory circular addressing airworthiness approval for aircraft forward-looking windshear and turbulence radar systems. The planned advisory circular would address installation guidance for these functionalities in Technical Standard Order (TSO)-C63d, *Airborne Weather Radar Equipment*. The objective is to leverage the installation specific guidance from the System Level Requirements (SLR) 10.2 recommended by the Forward-Looking Windshear Detection System Working Group and the generic issue papers on turbulence detection to publish an advisory circular. (In order for the public to comment on our proposal, they will need to have access to SLR 10.2 and the issue papers.)

DATES: Request comments and interest in participating by *[insert date that is 30 days after date of publication in the FEDERAL REGISTER.]*

FOR FURTHER INFORMATION CONTACT: Mr. Lee Nguyen, AIR-130,
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SUPPLEMENTARY INFORMATION:

Background:

Use of radar for forward-looking windshear and turbulence detection was previously addressed as additional functionality added to TSO-C63c, *Airborne Weather and Ground Mapping Pulsed Radars*. The FAA and industry collaborated on the end-to-end requirements for the design and installation of the forward-looking windshear detection system with SLR 10.2 and the turbulence detection function issue papers. With the publication of TSO-C63d, which added the forward-looking windshear and turbulence detection requirements, the design requirements are deleted from the TSO functionality.

Issue:

The design requirements are standardized and incorporated in TSO-C63d; however, use of the SLR 10.2 documentation and the associated issue papers were not eliminated because guidance is still needed for the installation and airworthiness certification of these systems, which is not covered by TSO-C63d.

Proposal:

The FAA proposes developing an advisory circular to address installation guidance for TSO-C63d predictive windshear and turbulence detection equipment. The goal is to combine the installation specific guidance from SLR 10.2 and existing generic issue papers into an approved coordinated advisory circular. Additionally, the FAA would update the existing guidance as appropriate, based on experience with the existing guidance and industry input.

Comment and Participation Invited

The FAA requests comment on the proposed AC to provide installation guidance for forward-looking windshear and turbulence detection radar systems. If the FAA proceeds with development of the AC, we envision collaborating with industry when drafting the

guidance. As such, we request interested participants in a working group to develop the AC to respond to the person listed in the “For Further Information Contact” paragraph.

Issued in Washington, DC, on March 25, 2013.

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