

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Airbus Model A319 and A320 series airplanes. This proposal would require a modification and replacement affecting the center and wing fuel tanks. All affected airplanes would require modification of the wiring of the fuel quantity indicating probes of the center and wing fuel tanks. Some affected airplanes would also require replacement of the high-level sensors of the additional center fuel tank with new, improved sensors. These actions are necessary to prevent overheating of the fuel probes due to a short circuit, and fuel leakage due to inadequate expansion of the area within the additional center fuel tank. Such conditions could result in fuel vapors or fuel contacting an ignition source and/or consequent fire/explosion in the center fuel tank. This action is intended to address the identified unsafe condition.

**DATES:** Comments must be received by December 17, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-153-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: [9-anm-nprmcomment@faa.gov](mailto:9-anm-nprmcomment@faa.gov). Comments sent via fax or the Internet must contain "Docket No. 2002-NM-153-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2125; fax (425) 227-1149.

**SUPPLEMENTARY INFORMATION:**

### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-153-AD." The postcard will be date stamped and returned to the commenter.

### Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-153-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

### Discussion

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that an unsafe condition may exist on certain Airbus Model A319 and A320 series airplanes. The DGAC advises that investigations done by the manufacturer have revealed a potential risk of a 28-volt direct current short circuit, external to the fuel

tank, of fuel quantity indicating (FQI) wiring installed in harnesses that contain wiring for other power systems. This short circuit could lead to overheating of the fuel probes and risk of an explosion. In addition, testing of the additional center fuel tank revealed that compliance with Joint Aviation Regulation 25.0989, which requires a 2% expansion of the center fuel tank, could not be attained due to sagging of the bladder. To correct this deficiency a new, improved high-level sensor has been developed that is longer and senses the fuel at a lower level, which reduces the fuel volume and allows for the 2% expansion. Overheating of the fuel probes due to a short circuit, and fuel leakage due to inadequate expansion of the area within the additional center fuel tank, could result in fuel vapors or fuel contacting an ignition source, and/or consequent fire/explosion in the center fuel tank.

### Explanation of Relevant Service Information

Airbus has issued Service Bulletin A320-28-1087, Revision 02, dated June 10, 2003, which describes procedures for modification of the wiring of the FQI probes of the center and wing fuel tanks. The modification includes the following:

- Installation of fused adaptors for the FQI probes of the center tanks.
- Installation of fused plug connectors for the FQI probes of the wing tanks.
- Installation of fused adapters between the external wiring harness and the in-tank wiring of the connectors on the center fuel tank wall.
- Operational testing of the refuel/defuel system, a leak test, a test of the pressure switch of the fuel transfer pump, and an operational test of the individual motor of the transfer valve, and repair if necessary.

Airbus also has issued Service Bulletin A320-28-1086, Revision 01, dated October 23, 2002, applicable to certain Airbus Model A319-115 and -133 series airplanes. The service bulletin describes procedures for replacement of the existing high-level sensors with new, improved sensors. The replacement includes installation of new, improved sensors, bonding leads, and a placard. Procedures are provided for operational tests of the additional center fuel tanks following the installation, and repair if necessary.

The DGAC classified these service bulletins as mandatory and issued French airworthiness directive 2002-220(B) R1, dated October 15, 2003, to ensure the continued airworthiness of these airplanes in France.