

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Gulfstream Aerospace LP Model Astra SPX and 1125 Westwind Astra series airplanes. This proposal would require removing the existing oxygen shutoff valve and installing a new oxygen shutoff valve. This action is necessary to prevent rapid adiabatic compression within the oxygen line between the oxygen shutoff valve and the pressure regulator due to a shutoff valve that can be opened quickly, which could result in overheating of the oxygen system and consequent fire in the cockpit. This action is intended to address the identified unsafe condition.

**DATES:** Comments must be received by March 24, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-281-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-281-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 for Windows or ASCII text.

The service information referenced in the proposed rule may be obtained from Gulfstream Aerospace Corporation, P.O. Box 2206, Mail Station D25, Savannah, Georgia 31402. 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-281-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-281-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

##### **Discussion**

The Civil Aviation Administration of Israel (CAAI), which is the airworthiness authority for Israel, notified the FAA that an unsafe condition may exist on certain Gulfstream Aerospace LP Model Astra SPX and 1125 Westwind Astra series airplanes. The CAAI advises that a fire occurred in the cockpit on two Israel Aircraft Industries, Ltd., Model 1124 and 1124A series airplanes during taxiing, when the co-pilot turned on the oxygen system. Investigation revealed that the existing design of the oxygen system allows high-pressure oxygen into the cockpit, which is reduced at a pressure regulator located on the airframe structure adjacent to the co-pilot. If the shutoff valve is opened too quickly, a rapid adiabatic compression

within the oxygen line between the oxygen shutoff valve and the pressure regulator may occur. This condition, if not corrected, could result in overheating of the oxygen system, and consequent fire in the cockpit.

The oxygen systems on certain Gulfstream Aerospace LP Model Astra SPX and 1125 Westwind Astra series airplanes are identical to those on the affected Israel Aircraft Industries, Ltd., Model 1124 and 1124A series airplanes. Therefore, all of these models may be subject to the same unsafe condition.

##### **Other Relevant Rulemaking**

The FAA has issued NPRM, Rules Docket 2002-NM-290-AD, to address the identified unsafe condition on Israel Aircraft Industries, Ltd., Model 1121, 1121A, 1121B, 1123, 1124, and 1124A series airplanes.

##### **Explanation of Relevant Service Information**

The manufacturer has issued Astra (Gulfstream Aerospace Corporation) Alert Service Bulletin 1125-35A-114, dated November 28, 2001, including Service Bulletin Certificate of Compliance, which describes procedures for removing the existing oxygen shutoff valve and installing a new oxygen shutoff valve. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition. The CAAI classified this service bulletin as mandatory and issued Israeli airworthiness directive 35-02-07-02, dated August 18, 2002, in order to assure the continued airworthiness of these airplanes in Israel.

##### **FAA's Conclusions**

These airplane models are manufactured in Israel and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAAI has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAAI, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

##### **Explanation of Requirements of Proposed Rule**

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same