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**Contract Maintenance:
The Critical Role of Repair Stations in Maintaining the Safety and
Strength of the U.S. Aviation Industry**

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Before the House Subcommittee on Aviation**

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Chairman Costello, Ranking Member Petri, and members of the Subcommittee, thank you for inviting me to testify this morning about the excellent work America's contract aviation maintenance companies are doing to ensure the safety of the traveling public while helping air carriers improve their bottom lines.

My name is Marshall Filler and I am the Managing Director & General Counsel of the Aeronautical Repair Station Association (ARSA). ARSA is a 670 member strong international trade association with a distinguished 22-year record of educating and representing certificated aviation maintenance facilities before the U.S. Congress, the Federal Aviation Administration (FAA), the European Aviation Safety Agency (EASA), and other civil aviation authorities (CAA).

ARSA's primary members are companies holding repair station certificates issued by the FAA under Part 145 of the Federal Aviation Regulations (FARs). These certificates are our industry's "license to do business." They authorize repair stations to perform maintenance and alterations on civil aviation articles, including aircraft, engines, and propellers, and on the components installed on these products. These repair stations perform maintenance for airlines and general aviation owners and operators.

In recent years, the profile of the contract maintenance industry has increased dramatically. We welcome the opportunity to discuss the important role our members play in the aviation industry here and abroad, and appreciate the opportunity to correct any misconceptions about this longstanding and safe practice.

Contract maintenance is a long-standing part of the civil aviation system.
The contract maintenance work performed by ARSA members is nothing new. Since the early twentieth century, our industry has consistently provided dependable, expert maintenance to the commercial and general aviation sectors.

Standards for repair station operations have been set since the enactment of the Civil Aeronautics Act of 1938. Part 145 continues to set stringent standards, ensuring that certificated repair stations meet the same safety criteria as airlines' in-house maintenance organizations. Although most of the recent media attention has focused on

maintenance performed for air carriers, contract maintenance also plays a critical role in supporting the approximately 200,000 general aviation aircraft registered in the U.S. Indeed, for decades repair stations have served as the primary source of maintenance for the general aviation sector. This is because general aviation operators, unlike air carriers, are not authorized to perform maintenance in their own right.

In recent years, airlines have increased their use of outside maintenance contractors to reduce costs, while maintaining the highest safety standards. Over the past decade, network air carriers have increased contract maintenance from 37 percent of their total maintenance expenses to 53 percent.¹ Perhaps that number is higher today than it was when the DOT Inspector General released its report; nevertheless, a safe and proven practice employed one-third of the time does not become unsafe merely because it is used more frequently.

Repair stations are a critical part of the U.S. economy.

The growing contract maintenance industry is a source of stable, good paying jobs for skilled American workers. Currently, there are over 4,000 repair stations in the U.S., employing over 195,000 people in all fifty states (see Appendix A). In recent years, our industry has absorbed many employees laid off by struggling air carriers. In 1994, the Indianapolis Airport Authority (IAA) leased the Indianapolis Maintenance Center (IMC) to United Airlines, Inc. In 2003, after filing for Chapter 11 bankruptcy protection, United vacated the state-of-the-art maintenance facility. Less than a year later, AAR Aircraft Services, Inc. entered into a 10-year lease agreement with the IAA for some of the vacated space and later received a repair station certificate for that location from the FAA. AAR's investment allowed the IMC to reopen and gave hundreds of aviation maintenance workers the opportunity to work for a financially stable company. Many of our members, particularly those who perform contracted heavy aircraft maintenance, employ former airline mechanics at their repair stations.

Indeed, the practice of contracting is not limited to maintenance. Flight training facilities, fueling services, and aerospace manufacturing are just a few of the activities contracted by the industry. Like airlines that oversee contract maintenance, aircraft manufacturers maintain strict oversight of their suppliers' production operations, since they retain regulatory responsibility for the final product. In addition, as with repair stations that have their own FAA certification, some suppliers to aircraft manufacturers obtain independent production approvals from the FAA, making them independently responsible under the regulations for the work they perform. This is similar to what occurs in contract maintenance.

Increases in contract maintenance have paralleled increases in safety.

The increased use of contract maintenance by airlines coincides with the best safety record in the history of America's commercial aviation industry. Between 1994 and 2004, the use of repair stations to perform maintenance for "legacy" airlines increased

¹ Department of Transportation Office of Inspector General, Rep. No. AV-2005-062, *Safety Oversight of an Air Carrier Industry in Transition*, at 1 (June 3, 2005).

from one-third to over half of all airline maintenance.² During that same period, the U.S. and worldwide fatal accident rate declined.³ This trend is continuing; earlier this month the National Transportation Safety Board (NTSB) released its annual statistics showing continued reduction in civil aviation accidents in the U.S.⁴

These trends suggest that highly-qualified and specialized repair stations servicing commercial aviation aircraft and related components are an integral part of maintaining the remarkable and exemplary safety record.

Although the type of work may differ, quality does not.

To operate in the civil aviation maintenance industry, certificated repair stations must demonstrate to the FAA, or other NAAs if applicable, that they possess the housing, facilities, equipment, personnel, technical data, and quality control systems necessary to perform maintenance in an airworthy manner. Based upon satisfactory showings in these areas, a repair station is rated to perform certain types of maintenance. Not all repair stations look alike and their capabilities vary significantly. Some provide line maintenance – the routine, day-to-day work necessary to keep an airline’s fleet operating safely. Some perform substantial maintenance, which includes more comprehensive inspection and repairs on airframes and overhauls of aircraft engines. Other repair stations offer specialized services for their customers such as welding, heat treating, and coating on a variety of aircraft parts. However, the vast majority of repair stations perform maintenance on components. Component maintenance usually occurs off the aircraft, typically away from an airport in industrial parks and similar facilities.

Certificated repair stations include both manufacturers of civil aviation articles who service their own equipment and independent organizations with the technical, engineering and management capabilities necessary to thrive in an increasingly complex aviation industry. Many of our members are second and third generation family-owned, small businesses. Significantly, many air carriers are also certificated under Part 145 and are aggressively pursuing contract maintenance opportunities of their own.

The skills and technology required to maintain civil aviation products often call for an increased level of sophistication. To meet this demand, contract maintenance companies have developed highly-specialized facilities. Repair stations, like medical specialists, often seek to strengthen their core competencies by specializing in a particular line or type of product. This allows them to develop a high level of proficiency in performing certain repairs.

² Department of Transportation Office of Inspector General, Rep. No. AV-2005-062, *Safety Oversight of an Air Carrier Industry in Transition*, at 1 (June 3, 2005).

³ Harro Ranter, The Aviation Safety Network, *Airliner Accident Statistics 2004: Statistical summary of fatal multi-engine airliner accidents in 2004*, at 7 (January 1, 2005).

⁴ National Transportation Safety Board, March 13, 2007 press release, “Annual Statistics Show Continued Improvement in Aviation Safety.”

Repair stations offer cost savings, reliability, and specialization to customers.

Beyond the value of specialized expertise, repair stations have consistently offered cost-savings to their airline and general aviation customers. The ability to perform high quality, reliable work in a timely manner and at a lower cost has allowed repair stations to thrive, even in an economic climate that threatens other sectors of the aviation industry.

Competitive bidding in contract maintenance requires repair stations to carefully control their costs. To successfully compete for and retain business, repair stations must find efficiencies and savings that are often unavailable to air carrier maintenance organizations. Without contract maintenance, an airline would have to invest capital in equipment and personnel for tasks it may not undertake as frequently or efficiently as a repair station specializing in that particular type of work.

In addition, many large airlines have found it difficult to control their labor costs. Repair stations, particularly small businesses, do not face the same demands on their resources. While employees at repair stations may not be compensated at the same levels as their unionized airline colleagues, contract maintenance workers enjoy other benefits, including the prospect of stable employment in a growing industry and the ability to work for a large aerospace company or a small, family-owned business. Their decision to accept lower pay in some cases in no way reflects the value of their contributions or the quality of their work. Indeed, the technicians at repair stations possess the training and skills necessary to ensure the highest level of safety and regulatory compliance.

Despite limited FAA resources, the industry ensures safety.

Aviation safety does not begin and end with the FAA or any other regulatory body. Government inspectors will never be able to oversee each mechanic at every facility all the time. The industry has the ultimate obligation to ensure that the civil aviation system is safe. All evidence suggests that it is fulfilling that responsibility despite the FAA's limited oversight resources.

In reports published in 2003 and 2005, the Office of the Inspector General of the Department of Transportation (DOT IG) expressed concerns about the FAA's oversight of the contract maintenance industry stating that the agency's oversight is currently insufficient for the amount of work independent repair stations perform for airlines.⁵ The FAA has responded to these findings by introducing a risk-based inspection program that identifies those repair stations doing the most work for airlines and monitoring their operations more closely. ARSA supports efforts to better utilize FAA resources to ensure the continued quality of contract maintenance and to demonstrate to policymakers and the public that our aviation system remains safe.

⁵ See, Department of Transportation Office of Inspector General, Rep. No. AV-2003-047, *Review of Air Carriers' Use of Aircraft Repair Stations*, at 1 (July 8, 2003); Department of Transportation Office of Inspector General, Rep. No. AV-2005-062, *Safety Oversight of an Air Carrier Industry in Transition*, at 1 (June 3, 2005).

We also note that despite the IG's observations, repair stations are subject to a tremendous amount of oversight by regulators, their customers, and other entities as shown in a 2005 ARSA member survey (Appendix B). A more recent membership survey conducted earlier this month is summarized in Appendix C. The findings from this survey reaffirmed past survey results, including:

- 42 percent of members surveyed reported 11 or more external audits during 2006 by regulators, customers, and third-party accreditation bodies.
- FAA resource issues are having an impact. A quarter of survey respondents reported losing customers or foregoing business opportunities because of inadequate FAA staffing.

Thus, safety is not just the FAA's responsibility, but that of every aviation maintenance employee performing work on behalf of a certificated repair station, air carrier or other aviation business. It is the FAA's role to ensure that repair stations have the procedures in place to ensure the quality of the work performed and to ensure that procedures are followed. Indeed, FAA regulations treat repair stations as extensions of an air carrier's maintenance organization. This means that the maintenance provider must perform the work in accordance with the carrier's maintenance program and the applicable portions of its manual. It also requires the airlines to provide a level of oversight to make certain these standards are met.

Critics may often times confuse certificated repair facilities with "non-certificated" facilities who employ certificated mechanics to perform on-call line maintenance for airlines. Although permitted under today's regulations, ARSA emphasizes that applicants for a repair station certificate must conclusively demonstrate to the FAA that they have the necessary infrastructure to perform the work. This includes housing, facilities, equipment, trained personnel, technical information required to perform the work and of course manuals describing the manner in which the repair station does business.

Foreign repair stations are an essential part of aviation.

Critics discussing contract maintenance often presume jobs are being sent overseas to foreign repair stations with no security or oversight. We are aware of no objective evidence supporting this proposition. In fact, the use of contract maintenance and the aviation system shows that foreign repair stations are a necessary part of the international aviation system. These entities must adhere to high quality standards, and the U.S. is a world leader when it comes to providing maintenance services to airlines. Any effort to restrict the use or number of foreign repair stations would likely lead to retaliatory trade actions by other countries and ultimately harm U.S. air carriers and the flying public.

The Chicago Convention of 1944 and International Civil Aviation Organization (ICAO) standards require that the State of Registry (i.e., the country in which an aircraft is registered) oversee the maintenance performed on that aircraft and related

components, regardless of where the work is performed.⁶ Consequently, a U.S. registered aircraft requiring maintenance while outside of the U.S. must have that work performed by an FAA-certificated maintenance provider. For this reason, FAA-certificated foreign repair stations exist. Indeed, a foreign applicant for a repair station certificate must demonstrate to the FAA that its services are needed to perform work on articles subject to FAA jurisdiction.

Similarly, when an aircraft of foreign registry requires maintenance while in the U.S., only a repair station certificated or validated by the relevant NAA may perform the work. For example, only an EASA-certificated repair station may perform maintenance on an aircraft of French registry within the U.S.

Unlike the U.S., in which the FAA permits and expects airlines to perform maintenance on their fleets to complement their operations, European regulators view operations and maintenance as two distinct functions. EASA requires that an airline obtain a separate repair station certificate before it can perform maintenance of any kind, including work on its own aircraft.

In 1994, the air carrier Lufthansa converted its maintenance division into an independent stock corporation, Lufthansa Technik AG. Lufthansa Technik performs the maintenance for Lufthansa and also manages the airline's maintenance program. As European regulators see it, an airline's core competency is operating aircraft. This demonstrates that in-house maintenance is not necessarily a logical or necessary outgrowth of airline operations.

This legal regime has proven beneficial to American repair stations. Currently, there are 694 FAA-certificated repair stations outside the U.S. (see Appendix D). At the same time, there are approximately 1,200 EASA-certificated repair stations in the U.S., and numerous other NAA-certificated repair stations inside our borders.⁷ Our aviation maintenance industry is highly-regarded worldwide.

Foreign repair stations are not an economic threat for U.S. companies, nor does their use threaten aviation safety. These entities must meet the same or equivalent safety standards as domestic facilities. Unlike their domestic counterparts, however, foreign repair stations must renew their certificate with the FAA annually or, at the discretion of the FAA, biannually, following a safety inspection. This ensures that the FAA evaluates the housing, facilities, equipment, personnel, and data of each repair station located outside the U.S. at least once every two years. The 2005 ARSA survey referenced above, viz., showed that the average FAA-certificated foreign repair station is audited more than 74 times each year by government regulators, customers, other third-parties, and the repair station's own personnel, suggesting a high-level of combined oversight.

⁶ See, ICAO Annex 8, ch. 4 § 4.2.1(b).

⁷ Data obtained on European Safety Agency (EASA) Web site, for "Foreign EASA Part-145 Valid Approvals for Organisations Located in the United States" March 16, 2007.

Recent attempts at restricting the use of foreign repair stations, and specifically removing the FAA Administrator's ability to issue new certificates, would be highly detrimental. Many companies factor into their business plan the ability to open a new foreign repair station, and much time and effort goes into the application process. Prohibiting the issuance of new certificates because of another agency's rulemaking delay, such as contained in the recently passed Senate legislation, unduly punishes American companies and could cause retaliation by other civil aviation authorities.

Security is a prime concern of all repair facilities.

Security at contract maintenance facilities has become a hot topic on Capitol Hill. As with certain airline employees, many repair stations located on an airport are required to have their personnel undergo criminal background checks under TSA regulations if they require unescorted access to the designated airport security identification display area (SIDA). Therefore, a repair station employee that performs line maintenance for an air carrier would have the same 10-year criminal background check requirement as an airline mechanic. Many repair stations voluntarily implement security procedures since the quality and safety of their work directly affects their business.

However, many repair stations are located miles away from airports and perform specialized work on component parts that have been removed from the airplane and sent to them for repair. These facilities are usually small-businesses; thus, imposing undue security burdens on them would in effect put an entire sector of specialized workers out of business. Our members understand the need for safety and security, since their livelihood depends upon it, and we ask that Congress recognize the difference in repair facilities, remembering that our industry shares their same goal: maintaining a high level of safety and security.

Some manufacturers are not making needed repair information available.

FAA regulations require those holding design approvals (generally the manufacturers) of civil aviation articles to make repair information available to certificated maintenance facilities and operators of aircraft. However, ARSA's recent member survey establishes that more than 70 percent of respondents have had difficulty obtaining these manuals, and more than a third report the issue as a "consistent source of frustration". ARSA worries that if these practices are not addressed, safety will be adversely affected.

The main issues are the availability of maintenance manuals (particularly component maintenance manuals or CMMs), the cost of this information and the practices of some manufacturers that use the manuals as a competitive weapon. This includes charging exorbitant prices or removing important information so the work can only be performed by facilities with which the manufacturer has a commercial relationship.

Efforts to resolve this issue through the regulatory sector have not worked. The FAA division that oversees maintenance (Flight Standards) requires repair stations to generally follow the maintenance manuals when performing work. This applies to work on the aircraft, engine or propeller as well as off-aircraft component work. We believe

this regulation is good public policy because it promotes standardization of repair practices.

Unfortunately, the FAA division that has jurisdiction over design approval holders (Aircraft Certification) does not believe component maintenance manuals are essential to continued airworthiness. They believe that because these manuals govern work performed off the aircraft, they are not as important as work performed on the aircraft, such as removal and replacement of the component. We strongly disagree and believe this regulatory disconnect is contrary to safety and the plain language of the regulation.

As a result of this continuing problem, ARSA plans to request the Subcommittee to adopt legislation ensuring access to this maintenance information at a fair and reasonable price. ARSA is not asking that the information be provided free of charge, nor are we asking the manufacturers to provide proprietary repair data; only that which is basic to continued airworthiness. With the amount of contract maintenance on the increase, we believe it is critically important that this issue be resolved in this year's reauthorization bill.

Conclusion

Contract maintenance has long been, and continues to be, a vital part of the aviation industry. Over the past decade, airline use of contract maintenance has steadily increased while we have experienced a period of unprecedented safety. Repair stations play a large role in this trend through the use of highly-qualified and trained employees, state of the art facilities, and a commitment to providing high quality maintenance services to airline, general aviation and even U.S. military customers.

Congress can help maintain these positive trends by providing the FAA with adequate resources to oversee the repair station industry, encouraging continued close oversight by airline customers, and ensuring that legislation and regulations are based on our common goal: safety.

