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**TESTIMONY OF CHRISTIAN A. KLEIN  
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BEFORE THE HOUSE HOMELAND SECURITY COMMITTEE  
TRANSPORTATION SECURITY AND INFRASTRUCTURE PROTECTION  
SUBCOMMITTEE**

**IS THE FLYING PUBLIC PROTECTED?  
AN ASSESSMENT OF SECURITY AT FOREIGN REPAIR STATIONS**

**NOVEMBER 18, 2009**

Thank you, Chairwoman Jackson Lee and Ranking Member Dent. It is a pleasure and privilege to appear before the subcommittee today on behalf of the Aeronautical Repair Station Association (ARSA) to discuss the question of foreign repair station security.

ARSA believes that the answer to the fundamental question posed by this hearing is that, yes, the flying public is protected and does not face any unusual or heightened security risk due to foreign or domestic repair stations. Even in the absence of the long-awaited Transportation Security Administration (TSA) repair station security rules, existing government regulations, industry practices, and the strong interest repair stations have in ensuring the airworthiness of their work and protecting their customers' property create a high level of safety and security.

As the TSA rulemaking process moves forward, the subcommittee should work with the agency to ensure that the new rules do not take a "one size fits all" approach to repair station security. Additionally, the agency must not impose new and unnecessary costs on the thousands of small U.S. aviation maintenance companies and thereby undermine the competitiveness of a vibrant sector of the U.S. economy.

***Overview***

ARSA is a 500 member-strong international trade association with a distinguished 25-year record of representing certificated aviation maintenance facilities before Congress, the Federal Aviation Administration (FAA), the European Aviation Safety Agency (EASA), and other civil aviation authorities (CAAs).

ARSA's primary members are companies holding repair station certificates issued by the FAA under part 145 of Title 14 of the Code of Federal Regulations, informally referred to as the Federal Aviation Regulations (FARs). These certificates are our industry's "license to do business." They authorize companies to perform maintenance and alterations on civil aviation articles, including aircraft, engines, and propellers, and on components installed on these products. Repair stations perform maintenance for airlines, as well as for general aviation owners and operators.

In addition to its advocacy efforts on behalf of the industry, ARSA has a strong commitment to regulatory compliance and industry education. Among other things, our association conducts regulatory training courses for aviation industry professionals, provides compliance materials (such as our Model Repair Station Manual), and staffs a hotline to answer member questions about aviation regulations.

The repair station industry is a vibrant part of the U.S. and world economies. A recent study by AeroStrategy for ARSA determined that spending in the global maintenance, repair, and overhaul (MRO) market exceeded \$50 billion in 2008, with North America (the U.S. and Canada) accounting for \$19.4 billion of the total. When induced and related economic effects are considered, the industry’s impact on the U.S. economy is \$39 billion per year. The 4,122 repair stations in the United States - 85 percent of which are small and medium-size companies - collectively employ more than 196,000 individuals.

The United States also has a strong and favorable balance of trade in the aviation maintenance services market. AeroStrategy determined that North America is a major net exporter of aviation maintenance services, enjoying a \$2.4 billion positive balance of trade in this arena. While North America is a slight net importer of heavy airframe maintenance services, it has \$1.4 billion and \$1.2 billion trade surpluses in the engine and component maintenance services markets, respectively. The U.S. competitive advantage in these two areas has important economic benefits because one dollar of spending on airframe heavy maintenance generates just \$1.38 in additional monetary activity, while a dollar spent on engine and component maintenance services generates \$1.85 and \$1.67, respectively.

The following are the key themes of our testimony before the subcommittee today:

- Foreign repair stations are an essential element of the global aviation system. Without them there would be no international air travel or commerce.
- Despite the fact that TSA has yet to issue the repair station security regulations mandated by VISION 100, security standards do exist for repair stations based on their location. Such standards emanate from the FAA, TSA regulations, and the International Civil Aviation Organization (ICAO).
- Repair station security is not only dependent on government oversight. In the aviation maintenance industry, “good security is good business.” Repair stations have a strong pecuniary interest (not to mention a legal responsibility) in protecting their customers’ property from theft and improper access, just as they have both a regulatory obligation and business interest to ensure the airworthiness of their maintenance work.
- A one-size fits all approach to repair station security is not the solution to perceived risks. Aviation maintenance is conducted in a wide variety of settings, ranging from heavy airframe work at large facilities on airports to component work in industrial

parks many miles from airports. Risk may vary by location and the type of maintenance work being performed. As TSA works to develop the new regulations, the subcommittee must monitor the process and ensure that small businesses around the country are not unfairly burdened with new regulatory obligations that drive up costs with no added public benefit.

- Requiring TSA to artificially speed up the rulemaking process threatens to divert the agency’s limited oversight resources from areas where the threat is greatest and could result in a poorly-crafted rule.
- Punishing private companies for TSA’s inaction on the repair station security front sets a dangerous precedent and is unfair to the industry.

***Foreign repair stations are critical to international aviation commerce***

Foreign repair stations are an integral part of the international aviation system. U.S. and foreign airlines, charter companies and general aviation operators, as well as aircraft manufacturers located around the world depend on maintenance facilities for everything from repairing aircraft and components to supporting supply chains. Aircraft manufacturers and maintenance companies establish overseas repair stations to service international customers and U.S.-based air carriers (airlines, charter companies and general aviation) operating internationally.

To operate in the civil aviation maintenance industry, certificated repair stations must demonstrate to the FAA, or other CAAs if applicable, that they possess the housing, facilities, equipment, trained personnel, technical data, and quality systems necessary to perform work in an airworthy manner. Based upon satisfactory showings in these areas, a repair station is rated to perform certain types of maintenance or alteration. Both U.S. and foreign repair stations are overseen and audited by the FAA, other CAAs, airline customers, and third-party auditing organizations, as well as the repair station’s own quality assurance staff.

Regardless of the location of the repair facility, the regulatory requirements are the same. Each item goes through a series of checks required by FAA and other civil aviation authority regulation before being placed on an aircraft. (Indeed, this system of checks by the maintenance providers and airline customers itself acts as a further protection against security risks and ensures that it is highly unlikely that any intentional act of sabotage would go unnoticed.)

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 aircraft or an airline’s fleet operating safely. Some perform substantial maintenance, which includes more comprehensive inspection and repairs on airframes and overhauls of aircraft engines. Others 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 (e.g., landing gear, radios, avionics, etc.)

Component maintenance usually occurs off the aircraft, typically away from an airport in industrial parks and similar facilities.

The International Convention on Civil Aviation (i.e., the Chicago Convention) of 1944 and 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. Consequently, maintenance on a U.S. registered aircraft must be performed by an FAA-certificated maintenance provider. Similarly, when an aircraft of foreign registry requires maintenance (e.g., while in the United States), only a repair station certificated or validated by the aircraft’s CAA of registry may perform the work. For example, only an EASA-certificated repair station may perform maintenance on an aircraft of French registry.

Limiting the use of appropriately certificated repair stations overseas would make international travel and commerce difficult because aircraft always need some level of maintenance when they land at their destination. In other words, if there were no foreign FAA-certificated repair stations, U.S. air carriers would effectively be unable to operate internationally. The economic ramifications of this prohibition on the U.S. aviation industry are too obvious and vast to discuss in this statement.

It is for all the foregoing practical, legal, and economic reasons that ARSA opposes any restrictions on the use of FAA-certificated foreign repair stations by U.S. operators and air carriers. If new restrictions are imposed, foreign authorities will retaliate against the U.S. industry. For example, the United States and the European Union (EU) are on the verge of concluding a new bilateral aviation safety agreement (BASA) that deals directly with the reciprocal certification of aviation maintenance facilities. Restrictions on the certification and use of foreign repair stations could cause the BASA to collapse and threaten years of work by FAA, State Department, and EASA negotiators to craft the new international agreement to allow U.S. companies easier access to European customers. The collapse of the U.S.-EU BASA would have devastating consequences for the 1,237 U.S. repair stations approved by EASA to perform maintenance on EU-registered aircraft and related components. Indeed, in response to a recent ARSA member survey, more than 60 percent of respondents said that the collapse of the BASA and resulting costs and complexities would have either a “major” or “devastating” impact on their companies, and 18 percent said it would threaten their ability to stay in business. This would significantly threaten the positive balance of trade (referenced above) that the United States enjoys in aviation maintenance services.

The past decade has seen an increase in the use of contract maintenance providers and maintenance facilities located abroad. This same period has also seen U.S. commercial aviation enjoy its safest period ever. At a minimum, this correlation suggests that the increased use of foreign and domestic repair stations is not negatively impacting aviation safety.

***Even in the absence of new TSA rules, existing standards ensure a high level of security at repair stations in the U.S. and abroad***

The absence of a formal TSA repair station security rule has not created a security vacuum in the aviation maintenance industry. The basic nature of the aviation industry demands that safety and security be the top priorities for our member companies. Operators and airlines will simply not do business with companies that put their passengers and valuable business assets (i.e., aircraft) at risk. Put simply, for ARSA members, good safety and security are good business.

In the United States, repair stations located on a commercial airport are required to subject personnel to criminal background checks pursuant to TSA regulations when the employees have unescorted access to the designated airport security identification display area (SIDA). Therefore, a repair station employee that performs line maintenance for an air carrier has the same 10-year criminal background check requirement as an airline mechanic.

Internationally, each country must implement security procedures based on ICAO Annex 17 standards, which means that rules similar to TSA’s SIDA regulations are in place around the world. At a minimum, ICAO requires:

- A national civil aviation security program with continuous threat monitoring and mandatory quality control procedures;
- Airport security programs for each airport serving international carriers;
- Air operator security programs;
- Background checks for persons implementing security control measures and persons with unescorted access to restricted security areas; and
- Periodic ICAO security audits.

However, many repair stations are located miles away from airports and perform specialized work on component parts. These companies may not be subject to SIDA requirements, but that does not mean they do not have security procedures in place to protect their customers property and their employees. As part of its model regulatory compliance manual for repair stations, ARSA recommends the following as best security practices for the industry:

- The facility should be monitored by an electronic security device and secured by deadbolts and locks.
- Only current employees should be provided with keys, and those keys should be retrieved upon termination or change of employment. If the keys are not retrieved, the locks and deadlocks should be changed.
- There should be adequate lighting around the perimeter of the building.

- Customers and other persons that are not employed by the repair station should be escorted when provided access to areas of the company where maintenance, preventive maintenance or alteration activities are performed.

The results of an ARSA member survey conducted last week further illustrate the extent to which security practices are widely employed by U.S. and foreign repair stations even in the absence of TSA rules. A majority of the survey respondents reported having the following security practices in place:

- Limited access through a single locked entrance;
- Criminal background checks on new employees;
- Prohibition on unescorted visitors;
- Customer products kept in segregated, locked/limited access area;
- Security alarm;
- Visitor sign in log;
- Perimeter fencing;
- Locked doors.

Many ARSA members also require employees to wear badges and have video cameras installed to monitor the premises. Of course, all the foregoing security practices are in addition to laws and regulations applicable to all U.S. employers requiring citizenship verification for new hires and, for repair stations working on air carrier aircraft, random drug testing.

It is significant that none of the ARSA survey respondents reported having a security breach in the past two years that, if undetected, would have compromised the airworthiness of the products the company was working on at the time. The survey results are highly reliable and have a margin of error of just eight percent for the entire population of U.S. FAA part 145 certificate holders. While this does not by itself prove that security is not a problem, at a minimum it suggests that the industry's current security practices are working.

In sum, aviation safety and security do not begin and end with the TSA, FAA, or any other regulatory body. Government inspectors will never be able to oversee every facility or employee all the time. The industry has clearly recognized that it has the ultimate obligation to ensure that the civil aviation system is secure. All evidence suggests that it is fulfilling that responsibility even in the absence of the long-awaited repair station security regulation.

***TSA rules must not take “one size fits all” approach to security and the small business-dominated aviation maintenance industry must have adequate time to review and comment***

The majority of entities that will be impacted by the TSA repair station security rule are small businesses. The laws adopted to govern the rulemaking process, namely the Administrative Procedure Act and the Regulatory Flexibility Act, are designed to protect the nation’s small businesses from onerous and excessively burdensome regulations. However, by rushing the rulemaking, Congress threatens to deny affected companies the opportunity to fully comment, which could have devastating consequences for repair stations and their employees. Additionally, as described above, the aviation maintenance industry is very diverse. A “one size fits all” rule would inevitably impose unnecessary regulatory burdens and costs on small businesses. Understanding the varying degrees of access to aircraft and sensitive areas, the location of facilities, and additional factors is essential to crafting a rule that targets the areas that pose the greatest security risk.

With the foregoing complexities of the repair station industry in mind, in order to ensure that the TSA’s new security regulation achieves the goals intended by Congress, affected parties must have adequate time to comment. However, by mandating the August 3, 2008 “due date,” the law effectively gave the TSA and industry two bad options: support a hurried rulemaking to avoid penalty or ensure a deliberate rulemaking process but risk missing the mandated due date. This far-reaching rule requires adequate time for TSA deliberation, industry comment and agency response. It is better to do the process right rather than fast.

ARSA appreciates Congress’ frustration with the fact that TSA has not yet issued its repair station security rule. However, we attribute this delay at least partially to the agency’s desire to direct its scarce resources at the areas that pose the greatest risk to the traveling public. Forcing TSA to direct its attention to a segment of the aviation industry where there is no demonstrated safety risk means that the agency has fewer resources to focus on high-risk areas. By forcing the reallocation of resources in this manner, Congress could inadvertently make travel less safe.

In testimony before the Senate Committee on Commerce, Science, and Transportation on Oct. 16, 2007, former TSA Administrator Kip Hawley discussed several of the initiatives TSA was pursuing to increase safety across transportation modes ranging from highways and rail to aviation and cargo shipments. During the hearing, Hawley testified that the TSA currently is committed to focusing its resources on “high priority items” facing national security interests and said that the agency must be allowed to act on its risk determinations. Administrator Hawley stated in his written testimony that:

[M]any of the rulemaking requirements mandated in the 9/11 Act do not adequately recognize the obligations that TSA must give the many stakeholders

affected by proposed regulations and the general public...These requirements are time consuming but are time well spent to assure that our regulations achieve their objective in a way that is transparent to stakeholders and the public and does not adversely affect travel and commerce.

***Industry should not be punished for agency inaction.***

Despite the full cooperation of industry, the TSA has failed to promulgate a final rule in a timely manner. However, rather than punishing TSA, Congress is instead punishing the aviation maintenance industry with a “freeze” on initial certification of foreign repair stations. The ban is having a significant impact on the ability of American companies to expand and service international markets. As one respondent to ARSA’s recent member survey stated, “We were very close to complete with licensing our source and were just performing the demonstration phase of the EASA certificate at the time of the moratorium. We have been unable to support a market that was very heavily into our business plan and the situation could likely cause closure of the facility if the ban isn’t lifted impacting employment both in our United States Station and Europe.”

Punishing industry for the failure of an executive agency to act sets a dangerous precedent. U.S. aviation industry companies and the thousands they employ do not have the power to compel TSA to issue the repair station security final rule, yet they pay the price for the agency’s inaction.

***Conclusion***

In sum, even without the new TSA repair station security rules, foreign and domestic repair stations are safe. Existing domestic and international laws and regulations, customer requirements, company policies, and industry best practices ensure that security is a priority at repair stations throughout the world.

ARSA looks forward to working with TSA and the members of this panel to craft new rules that improve repair station security. However, as the rulemaking process moves forward, both Congress and TSA must be mindful of the diverse nature of the aviation maintenance industry and the fact a “one size fits all” approach to security will not be successful. Congress must give TSA adequate time to consider the impact that the rules will have on the small business-dominated aviation maintenance industry and ensure that the regulations will not undermine the competitiveness of a thriving sector of the U.S. economy.

In the end, no government or agency can by itself ensure aviation safety and security. Both depend on a commitment from aviation industry companies and their employees who are operating the system on a day-to-day basis. In the same way that ARSA works with civil aviation authorities around the world to improve the quality of regulation and oversight, so too will we continue to work with our domestic and foreign members to improve safety and security practices.



Testimony of Christian A. Klein for the Aeronautical Repair Station Association  
Before the House Transportation and Infrastructure Security Subcommittee  
“Is the Flying Public Protected: An Assessment of Security at Foreign Repair Stations”  
November 18, 2009  
Page 9 of 10

Chairwoman Jackson Lee, thank you again for the opportunity to participate in this hearing. I look forward to answering whatever questions you and the members of your subcommittee have.

## APPENDIX A: FAA Repair Stations by State (Including Territories)

Prepared by the Aeronautical Repair Station Association (ARSA) Based on FAA Air Agency Data Dated 11/09/09

State	Number of Repair Stations	Number of Employees
AK	52	482
AL	57	5,760
AR	45	3,334
AZ	143	5,460
CA	651	30,597
CO	69	1,136
CT	99	7,330
DC	1	6
DE	7	952
FL	508	16,290
GA	118	10,599
GU	1	6
HI	13	141
IA	35	3,006
ID	29	484
IL	104	4,057
IN	67	2,976
KS	111	6,372
KY	37	728
LA	37	2,096
MA	56	1,743
MD	25	1,445
ME	13	864
MI	113	4,044
MN	55	2,091
MO	52	2,022
MS	20	834
MT	22	315
NC	70	2,930
ND	13	199
NE	13	1,365
NH	23	569
NJ	65	2,763
NM	20	465
NV	28	689
NY	121	5,781
OH	129	4,774
OK	140	12,989
OR	49	1,536
PA	93	2,702
PR	14	121
RI	7	294
SC	36	2,331
SD	15	66
TN	55	2,018
TX	419	25,688
UT	28	331
VA	45	1,191
VI	1	1
VT	11	154
WA	114	9,038
WI	48	1,648
WV	15	1,460
WY	10	82
<b>Total</b>	<b>4,122</b>	<b>196,355</b>