STATEMENT OF PATRICIA GRACE SMITH, ACTING ASSOCIATE ADMINISTRATOR FOR COMMERCIAL SPACE TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON SCIENCE, SUBCOMMITTEE ON SPACE AND AERONAUTICS, CONCERNING THE COMMERCIALIZATION OF SPACE. MAY 22, 1997.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee today to discuss commercial space launch activities and the legislative efforts underway to grant the Federal Aviation Administration's Associate Administrator for Commercial Space Transportation (AST) the authority to license reentry of commercial space transportation reentry and reusable vehicles.

Regarding the issue of industry standards, AST recognized early the benefit of such standards and has been working actively with the American Institute of Aeronautics and Astronautics as well as the International Organization for Standardization toward the development of such standards. Since other witnesses are testifying in detail on this specific issue, I will only mention here that AST is committed to continuing its efforts toward this end.

With that said, I would like to take a moment, Mr. Chairman, to present a brief overview of the U.S. commercial space transportation industry in order to provide a context with which to view today's discussions.

In the early 1990's, the commercial space industry only conducted a handful of launches, using a few old-design launch vehicles. In 1995, however, there were 12 licensed commercial launches of expendable launch vehicles, or ELVs, which exceeded government launching of similar vehicles. Although government launches of ELVs edged slightly ahead of the commercial sector in 1996, our unofficial manifest for this year shows that commercial launches may again outnumber government launches, with the potential for more than 25 commercial ELV launches in 1997.

Accompanying the growth in the number of commercial launches, has been an increase in the types of launch vehicles manufactured. In the early 1990's, the Delta and Atlas rockets dominated the U.S. market. Today, in addition to the second and third generation Delta and Atlas rockets, we have the air-launched Pegasus rocket, the medium-lift Taurus rocket, and the family of Lockheed Martin Launch Vehicles.

The success of the commercial space industry is also stimulating growth in commercial space launch infrastructure, commonly referred to as "spaceports." Currently, five
states--Alaska, California, Florida, New Mexico, and Virginia--all have spaceport development activities underway.

Alaska was issued a Finding of No Significant Impact on October 8, 1996, based on its Environmental Assessment. Our pre-application consultations with Alaska for its license application are continuing. Virginia's efforts to develop a commercial launch facility at NASA's Wallops Flight Facility is at the pre-application consultation stage and AST representatives have recently attended their 45% design review. New Mexico's Southwest Regional Spaceport project is close to issuing a Notice of Availability of a Draft Environmental Impact Statement. The preliminary site feasibility evaluation revealed no insurmountable obstacles to siting a spaceport. However, final licensing approval is contingent on, among other things, successful completion of the National Environmental Policy Act process and acquisition of the site from the Bureau of Land Management. Also, because this is the only commercial spaceport currently under development which would not support launches out over an ocean, operational approval would be limited to supporting launch or reentry vehicles of sufficient reliability to meet AST's safety requirements for overflight of populated areas.

Finally, a site operator license was issued to California for its facility at Vandenberg Air Force Base on September 19, 1996. And, Spaceport Florida Authority submitted its application for an operator's license on December 12, 1996. We have been working closely with the people in Florida and our review of the application is now complete.

As the demand for commercial space launch services increases, launch vehicle manufacturers continue to look for more economical ways to deliver payloads into space. Today, companies such as Lockheed Martin, Kistler Aerospace, and Kelly Aerospace, are all actively working toward development of reusable launch vehicles. In fact, we are in pre-application discussions with Kistler Aerospace in preparation for licensing its
initial test flights from the Energy Department's Nevada Test Site, which brings me to a matter of significant importance to AST and the U.S. commercial space transportation industry.

Mr. Chairman, it is essential that Congress pass authorizing legislation granting AST authority to license reentries. The issue of reentry is not new. It first came to our attention when we were in the process of licensing the Commercial Experiment Transporter reentry vehicle, or COMET. Composed of a command module and a reentry capsule, the vehicle was designed to be orbited with a variety of microgravity experiments. After a period of about thirty days, the reentry capsule would be separated and brought back intact to earth to land at a designated spot. As AST grappled with how to ensure the safety of this operation under the limited authority granted to the office to license launches, it became clear to us that the office did not have the specific authority to license or regulate reentry. However, many involved in the project agreed and encouraged AST to oversee the safety of COMET's reentry operations. AST did license the

mission, which was renamed METEOR, in October 1995, but the launch was unsuccessful and reentry safety was not tested.

For the past three years, legislation granting AST reentry licensing authority has passed both the House and Senate. However, the authorizing language has been included in larger, more controversial legislation, which ultimately was not passed; therefore, the authority has never become law.

We are now at a point in time when it is critical that such legislation be passed. This authority would enable AST to respond appropriately to present and anticipated commercial space industry needs. Without it, we will not be able to provide for public safety or to ensure adequate oversight of commercial space transportation activities involving reentry or reusable vehicles. As I stated earlier, Kistler Aerospace is developing a reusable launch vehicle and is already in consultation with us concerning a license for test flights next year. We can license the launch, but lack the authority needed to license the reentry. Reentry clearly poses potential public safety risks as these vehicles fly over populated areas. With applications for test flights of reusable launch vehicles already under discussion, it is increasingly important that AST is granted reentry licensing authority this fiscal year.

Before closing, Mr. Chairman, let me say that we appreciate this Subcommittee's, and the full Committee's, long standing interest in resolving this issue. I was

pleased to see that under your leadership reentry licensing authority for AST has remained in the forefront and that appropriate authorizing language is included in HR 1275. It is critical that legislation is soon passed so that the commercial space industry can move forward with this new technology. As you know, the Department of Transportation also has proposed legislation that contains the authority you have provided us in H.R. 1275. In the event H.R. 1275 does not pass for reasons unrelated to this issue, there will be proposed legislation in place to help ensure that reentry authority can be passed this fiscal year.

That concludes my prepared statement Mr. Chairman. I would be pleased to answer any questions you or the other members of the Subcommittee may have at this time.