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Subcommittee on Aviation
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Mr. Chairman, Distinguished Members of the Subcommittee.

My name is Douglas Lavin. I am the Regional Vice President of North America for the International Air Transport Association (IATA).

IATA represents 240 carriers engaged in scheduled international transportation of passengers, mail and cargo by air. Our members carry roughly 94% of such traffic. All of the U.S. network carriers are members of IATA. There are nearly 80 IATA members in total that fly to the US.

IATA appreciates the opportunity to brief the Subcommittee on the environmental record of the international airline industry, on our strategy and vision to reduce our future carbon emissions, as well as to offer our thoughts on what the U.S. Government should, and should not, do to support this important effort.

The Commercial Aviation Green Record

As this Subcommittee knows, aviation has an impressive environmental record, particularly when it comes to carbon emissions reduction. The facts speak for themselves:

- Over the last forty years, the commercial airline industry has virtually eliminated black smoke from aircraft engines and has reduced its noise levels by 75%. During the same period, it improved its fuel efficiency by 75%, leading to a similar reduction in CO_2. Most recently, IATA members improved their fuel efficiency by a full 20% between 1997 and 2006.

- According to the United Nations Intergovernmental Panel on Climate Change (IPCC), aviation emits two percent of global carbon dioxide (or CO_2) emissions. That contribution could reach 3% of global emissions under a "business as usual" scenario by 2050.

- While air travel is growing at a rate of 5% to 6% a year, our carbon footprint is growing at about half that rate.

Our Green Targets Going Forward

Aviation has one of, if not the best green record of any industry. However, IATA and its member airlines are not resting on the industry's accomplishments to date:

- IATA airlines have committed to improve our fuel efficiency over 2005 levels by another 25% by 2020. Members of the Air Transport Association of America have themselves committed to an even more aggressive target: 30% better efficiency by 2025.

- In the medium term, we strive to reach carbon-neutral growth, i.e. that our anticipated growth does not result in a corresponding increase in CO_2 emissions.

- In the longer term, IATA has committed to a vision of a zero emissions commercial aviation industry. To that end, we aim to operate a zero-emissions aircraft in the next 50 years. We recently entered into a partnership with Solar Impulse, the solar airplane that will fly around the world with no fuel and zero carbon emissions by 2011. We believe this prototype exemplifies IATA's vision of a carbon free future for commercial aviation.

These are all aggressive goals. The technology does not exist today to support a zero carbon emissions commercial air transport industry in the foreseeable future. However, IATA and its member airlines are confident that we will ultimately reach these short and long-term goals.

Our confidence stems in large part from the fact that this industry cannot afford to miss these targets. Our fuel efficiency record has been driven by our industry's focus on reducing its costs in order to enable it to continue to provide critical transportation services to the world. Over the last five years, our fuel bill has increased by 340% making it our members' number one cost item. We estimate the total fuel bill for our members to be $156 billion in 2008. No government program, regulation or tax can serve as a greater incentive to the aviation industry to reduce our CO_2 emissions than the cost of fuel. Quite simply, we cannot remain a viable industry without continuing to focus our attention and our resources on reducing our fuel burn and, in turn, our CO_2 emissions.

IATA's Four Pillar Strategy

IATA and its Board of Governors, made up of the Chief Executive Officers of the world's leading airlines, are committed to these targets and have implemented a four-pillar strategy to ensure our success:

1. **Technology:** We need cleaner and more efficient aircraft. Initial reductions in emissions will be achieved through new airframe and engine technologies. These advancements will come in the form of weight reduction, engine upgrades and better aerodynamics. Zero emissions can only be reached through radically different aircraft that are powered by radically different fuels. We are establishing a technology roadmap with the major airframe and engine manufacturers to bring us to carbon neutral growth and beyond. We need research into new, lighter materials and sustainable alternative fuels.

2. **Infrastructure**: We need more, better, and more efficient air traffic infrastructure across the globe. We also need air routes to be optimized and improvement in the use of airport terminals. In 2007 alone, IATA worked with governments around the world to optimize almost 400 routes and 80 airports, thereby yielding a reduction of nearly 4M tons of CO_2.

3. **Operations**: Airlines need to fly smarter and greener. IATA has deployed a network of "green teams" that benchmark airline operations against best practices in the industry in order to save fuel and CO_2. In 2007, we identified efficiency savings of 6.7M tons of CO_2 from operations.

4. **Economic measures**: We need positive economic measures to cover any gap between the growth in aviation and the corresponding growth in emissions that cannot be eliminated employing the first three pillars. More importantly, we need to eliminate negative economic measures that undermine our ability to support the first three pillars.

As part of this strategy, IATA's Board of Governors has committed IATA to developing standards and guidelines for an industry carbon offset program and to pilot it with at least six airlines in four different regions by the end of 2008. We believe a well structured, consistent offset program will be an effective tool in meeting our overall carbon targets.

IATA and its member airlines, along with our manufacturing partners, are committed to aggressively addressing this challenge in ways that yield results rather than sound bites. The International Civil Aviation Organization (ICAO) adopted these pillars as their own at their September 2007 Triennial Meeting. On April 22, 2008, IATA signed a Global Declaration on Aviation and Climate Change with 17 leaders across the air transport industry committing all of us to this four-pillar strategy. We are perfectly incented to reach these goals and are committing substantial resources towards that end.

Government Help We Need

Unfortunately, no matter how committed we are to this four-pillar strategy, IATA and its member airlines cannot achieve these critical targets alone. We must rely on the support of this Congress as well as governments around the globe if we hope to make commercial aviation even greener than it is today.

More specifically, we need the U.S. Government to play a leadership role in addressing the two major challenges facing us in our effort to reach carbon neutral growth in the medium term. First, we need to put the right economic incentives in place for the development of radically new green technologies. This must become a clear political priority. We are not asking for subsidies. We are asking the Congress to restore funding cut from NASA and FAA budgets and to provide greater support to DARPA so that potentially breakthrough research into lighter materials, radical new aerodynamics and new fuels – such as third generation, algae based fuels and hydrogen fuel cells – can go forward. The United States and its outstanding research bodies like the National Laboratories can serve to achieve real emissions reductions.

Second, in the area of infrastructure, the Congress can show leadership by providing accelerated funding for the NextGen, which offers the greatest opportunity for carbon savings in this pillar. Similarly, this Congress can demand that Europe deliver on their long promised Single Sky project, which could deliver up to 12 M tons of CO_2 savings annually. Government support is also needed to encourage the optimization of U.S. and global air routes. We challenge governments to set their own target of eliminating air traffic inefficiencies by 50% over the next five years, which would result in an annual reduction of 35M tons of CO_2.

Government Help We Cannot Accept

This type of positive government support will prove critical as we strive to meet our green targets. However, even more important than adopting economic incentive programs is the need for this Subcommittee and this Congress to make it clear to the world that it will avoid the temptation of implementing short sighted, counterproductive, negative economic measures in the name of the environment. Green taxes and charges do nothing to address emissions growth. Rather, these increased costs will only reduce the opportunity for airlines to increase their fuel efficiency and decrease their CO_2 emissions. While some may gain political points by imposing green taxes on the airline industry, we are not aware of a single example of an environmental improvement being achieved following this path.

There are a number of recent examples of these types of negative economic measures that serve to derail efforts to meet stringent environmental targets. Most recently, the UK Government announced its intention to replace the air

passenger duty (APD) with a duty payable per plane, rather than a per passenger duty, with the stated intention of ensuring that aviation makes a greater contribution to covering its environmental costs. Putting aside the fact that this tax is incompatible with UK obligations under international law, it will do nothing to improve environmental performance, as monies raised will go into the government's general fund to address a £500M (approximately $1B) shortfall in this account. Green-in-name only taxes only make it more difficult for already economically challenged airlines to make the investments necessary to meet our shared targets. These taxes are simply a means to increase government coffers and curb aviation growth.

A second type of negative economic measure can be seen in the European Commission's proposed inclusion of aviation in their emissions trading scheme (ETS). Some have argued that ETS is the only means to effectively curb our emissions, short of eliminating flying. In contrast, IATA points out that fuel prices serve as a much greater incentive to curbing emissions than any emissions trading scheme. That being said, ETS could play a role in reaching carbon neutrality, which by definition makes ETS irrelevant. If, in the end, we cannot reach carbon neutrality through technology, operations and infrastructure improvement, a properly designed ETS offers an option for bridging the gap between aviation and emissions growth.

Unfortunately, the European ETS is an improperly designed scheme that will hinder airlines' ability to achieve carbon neutrality. It is a unilateral, regional measure when our highly mobile industry demands global solutions. It is extraterritorial in that it proposes to include non-EU carriers in its scheme (even for the portion of their flights over other countries and international waters), a clear violation of international law. It in effect punishes rather than rewards the aviation industry for its past and future commitment to emissions reductions. As currently designed, it would by 2020 require airlines to buy permits for ALL of their emissions, thereby serving effectively as an additional onerous tax. IATA strongly believes that any ETS must be designed and implemented by the International Civil Aviation Organization (ICAO), as designated by the Kyoto Protocol. IATA is strongly encouraging ICAO member states to take the difficult steps necessary to address this global challenge in a global manner. At the same time, it is critical to understand that an ETS without substantial improvements in the other three pillars may reduce emissions, but only by substantially curtailing the substantial role international aviation plays in the world economy.

It is important to note that the current European ETS proposal only covers CO_2 emissions. However, the European Commission is now considering possible measures to reduce NO_x emissions from aviation. Myths to the contrary, the IPCC itself has recognized that the science on the impact of NO_x on global warming is far less developed than that on CO_2 emissions and therefore controls at this time would be in appropriate. We are very concerned that the European

Commission will repeat the mistakes in NO_x that it made in developing the unilateral, counterproductive ETS proposal.

Finally, closer to home, IATA and its member airlines are very concerned about the ETS scheme set forth by the Lieberman-Warner Climate Change Act (S. 2191). Rather than including aviation directly in an ETS, the bill proposes to cover transportation by requiring fuel producers to acquire allowances to cover the GHG content of the fuel they sell to the transportation sector. The cost of these allowances would in turn be passed on to the airlines by the producers, thereby serving as a tax on airline growth. To make matters worse, the producers would be required to cover 100% of the emissions targets with no allowances for efficiency gains already made by the airline industry (in contrast to other industries that have not already made the substantial investments we have made in these green programs). Moreover, aviation should not be held accountable for fuel inefficiencies resulting from outdated air traffic systems and inefficient routes. Finally, every dollar paid by airlines to producers for allowances is a dollar less than airlines can spend to meet our aggressive efficiency targets. We urge this Subcommittee to send a clear message to their Senate colleagues that this industry and its passengers cannot afford yet another ill conceived environmental tax.

Where We Go From Here

In summary, the global commercial aviation industry has made tremendous strides in increasing its fuel efficiency and in reducing its carbon footprint. The ever-increasing cost of fuel serves as the perfect incentive for airlines to meet aggressive emissions targets in the short, medium and long terms.

Commercial aviation is a major driver of the U.S. economy, responsible for 8% of gross domestic output and 11.4M jobs. This productivity is threatened not only by rising oil prices but also by ill-conceived governmental efforts to control emissions by curtailing this economic engine. We accept that government plays an important role in the achievement of our targets going forward. We encourage the U.S. Congress to monitor our progress towards these important goals in the future. At the same time, we urge this Subcommittee and your Congressional colleagues to enact positive economic measures in this area and to avoid erecting barriers to our achievement of these green goals.