Aviation and the Environment

Talking Points

- Worldwide concern over climate change and the U.S. Environmental Protection Agency's (EPA) recent reduction of ozone standards have increased attention on the issue of air quality.

- The aviation industry has been successful in adopting an environmental agenda that supports a sustainable aviation environment. This agenda includes testing alternative fuels to be used in aircraft, developing carbon offsets, and encouraging "green airports."

Aviation Emissions and Fuel Efficiency:

- Aviation accounts for only 3% of greenhouse gas (GHG) emissions worldwide, based on data from the Intergovernmental Panel on Climate Change.

- The U.S. aviation industry has reduced GHG emissions by 13% since 2000. General aviation and U.S. airlines are doing a better job of transporting passengers on less fuel due to fuel-saving measures, such as harmonizing schedules, increasing load factors, switching to more fuel efficient aircraft and engines.

- Aircraft fuel efficiency based on the amount of fuel consumption per passenger mile improved by 23% from 2000 to 2006, according to the U.S. Department of Transportation. During that same period, automobile fuel efficiency increased by 2%.

- Aviation gasoline and jet fuel account for 12% of total petroleum product consumption, according to data from the Department of Energy.

Alternative Fuels and Aircraft Improvements:

- Alternative fuel programs exist within aviation**.** Virgin Fuels, Boeing, and GE Aviation have joined forces to develop an alternative fuel that includes a biofuel blend composed of babassu oil and a mixture of jet fuel and coconut oil.

- The University of North Dakota received a $5 million grant to develop a cold weather sustainable biofuel to be used by the military.

- New aviation technology is producing cleaner and more efficient aircraft. Advances in aerodynamics offer more efficient wings designs with less drag. Cirrus and Columbia models are examples of more efficient general aviation aircraft. New composite materials are making aircraft lighter in weight, resulting in increased fuel efficiency.

- Aircraft entering today's fleets are 70% more fuel-efficient than they were 40 years ago.

Infrastructure Improvements:

- Approximately 73 million tons of carbon emissions are wasted worldwide every year due to infrastructure inefficiencies.

- Airports and airlines are pressing governments and local authorities to provide more environmentally friendly ground access to airports – like trains or metros.

- Airports and airlines are committed to using more environmentally efficient ground service equipment and vehicles.

Federal and State Programs:

- Federal programs are contributing to improvements in GHG emissions. The Federal Aviation Administration introduced Reduced Vertical Separation Minimum, an International Civil Aviation Organization approved concept that reduces the aircraft separation standard at certain high altitudes, allowing aircraft to fly more optimum profiles safely, gain fuel savings and increase airspace capacity, saving about 3 million tons of CO_2 annually.

- Many municipal governments in cities such as Seattle, San Francisco and Denver require a climate action plan, while state environmental regulatory agencies are requesting GHG inventory documentation as part of a state National Environmental Policy Act.

Aviation and the Economy:

- Aviation's global economic impact is estimated to be $3.5 trillion, or 8% of world Gross Domestic Product.

- The aviation industry generates a total of 32 million jobs globally.

Noise Pollution:

- Aircraft entering today's fleets are 20 decibels quieter than comparable aircraft 40 years ago.

- A further 50% reduction in noise during take-off and landing is expected by 2020.