Statement of
Captain Lee Moak, President
Air Line Pilots Association, International
Before the Aviation Subcommittee
Committee on Transportation and Infrastructure
U.S. House of Representatives
On
The European Union's Emission's Trading Scheme:
A Violation of International Law

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Mr. Chairman, Ranking Member Costello and members of the Committee, I am Captain Lee Moak, president of the Air Lines Pilots Association, International (ALPA). It is a pleasure and an honor for me to be here today to testify on behalf of more than 53,000 pilot members who fly for 39 airlines in the U.S. and Canada. Accompanying me today is Captain Kathi Hurst, who serves as our subject matter expert on aviation environmental issues and emissions trading. We appreciate the Committee's interest in the European Union's (EU's) emissions trading scheme and the opportunity to present our views on it today.

The EU ETS is a Job Killer

The Federal Aviation Administration, according to a December 2009 study, showed that commercial aviation helps drive $1.3 trillion in economic activity each year, and it is responsible for more than 5 percent of U.S. gross domestic product, and employs 11 million people. It is no exaggeration to say that commercial aviation is part of the very foundation of our nation's economy, safely transporting people and cargo on millions of flights each year and generating enormous revenues for multiple sectors of the economy. For evidence of this fact, we need only remind ourselves of the tremendous damage done to our economy when the industry came to a standstill for just a few days following the 9/11 attacks.

The EU ETS is no more than a thinly disguised tax on commercial aviation, the proceeds of which may well accrue to the treasuries of foreign governments instead of being used in a meaningful way to reduce GHG emissions. It is our strong contention that *the industry already pays more than its fair share of taxes*. According to the ATA, the industry's non-income tax burden has grown from $3.7 billion in 1993 to approximately $17 billion

now. In 1972, the taxes on a $300 domestic round-trip ticket totaled $22, or 7% of the total. In 1992, the tax bite on that same $300 ticket had nearly doubled to $38, or 13% of the total. Today, the taxes on a $300 airfare are $63, or 20% of the fare and represent *nearly a 300% increase* over the ticket taxes levied on the airlines in 1972.

The EU ETS taxes will ultimately cost more American jobs at a time when unemployment stands at 9.2% and job creation is everyone's goal. The airlines simply cannot afford any new taxes and we must do all that we can to keep from losing any more jobs in this industry.

The EU ETS is Legally Questionable and Ill-Advised

ALPA has an abiding interest to ensure the ongoing viability, what we call the sustainability, of our airline industry in the United States. We know very well that our employers are under tremendous stress to reduce fuel consumption and corresponding emissions. This is so despite the fact that over the past 30 years, U.S. commercial airlines have made great progress in reducing the environmental impact of aircraft operations, improving fuel efficiency by more than 100 percent. Moreover, the U.S. industry has committed to making additional improvements including an average annual carbon dioxide (CO_2) efficiency improvement of 1.5 percent per year and an industry-wide cap on CO_2 emissions from 2020 forward. The industry is also promoting the creation of international emissions guidelines through the International Civil Aviation Organization (ICAO).

It is most unfortunate, therefore, that the EU has decided to unilaterally implement a stand-alone taxation scheme ostensibly for the purpose of reducing aircraft emissions. This emissions trading scheme would cap emissions at a set amount per airline per year, and then allocate a specific number of free emissions allowances to individual airlines. By April 30 of each year, an airline would be required to surrender a number of allowances equivalent to the amount of its total emissions during the preceding calendar year. An airline that does not surrender sufficient allowances will be held liable for paying a penalty of 100 Euros for each ton of carbon dioxide equivalent emitted for which the airline has not surrendered allowances. These penalties could amount to thousands of dollars per flight. All emissions from flights to and from the EU are covered including emissions from those parts of the flights that are outside the territories of the EU member states.

The cost to U.S. airlines for acquiring allowances sufficient to cover their projected emissions could be several billion dollars between 2013 (when the first allowance surrender is scheduled) and 2020.

The EU ETS is legally questionable on many grounds. First, to the extent that the EU seeks to regulate activities occurring outside the territories of its member states, it is at odds with the principle of customary international law that each state has complete and exclusive sovereignty over the airspace above its territory, with several provisions of the Chicago Convention, and with the Air Transport Agreement between the EU and the United States. Second, the ETS is inconsistent with the obligation imposed by the Kyoto Protocol of 1997 to address aircraft emissions issues through ICAO. Third, the ETS runs afoul of the prohibitions on fuel taxes or charges set forth in the Chicago Convention and the Air Transport Agreement.

Another significant concern with the ETS is that it may spawn conflicting or redundant emissions schemes in other countries. The ETS permits the exclusion of a country's aircraft from the scheme if that country adopts measures that have "an environmental effect at least equivalent to" those of the ETS. If multiple countries attempt to craft emissions reduction programs that satisfy the EU, airlines may be confronted with a range of schemes that will be complex, costly and perhaps redundant. Such a result must be avoided.

As stated above, the commercial airline industry has made significant and meaningful emissions improvements for decades. Airlines have an inherent economic incentive to reduce fuel consumption and greenhouse gas (GHG) emissions because fuel accounts for a significant and volatile part of an airline operating budget. According to the Department of Transportation, in May 2011, the average cost of a gallon of jet fuel was $3.03 per gallon, not including taxes, which represents a 31% increase for this commodity compared to its cost in May 2010. According to the Air Transport Association (ATA), a one-penny-per-gallon increase in the cost of jet fuel results in an additional cost to the airlines of $175 million over the course of a year.

The commercial aviation industry improved fuel efficiency by approximately 110 percent between 1978 and 2008. This resulted in a savings of 2.7 billion metric tons of CO_2 – roughly equivalent to taking more than 19.5 million cars off the road each year. Between 2000 and 2008, GHG emissions and fuel burn were reduced by 5.5 percent while transporting 17 percent more passengers and cargo.

These impressive efficiency and GHG-reduction gains have come about, not from the unilateral and ill-advised actions of a consortium of foreign governments, but through the research, development and implementation of new engine and airframe technology by the airline industry. If the EU's planned imposition of expensive, new taxation on the airline industry is enacted, we would expect several unintended consequences to result,

to include less available capital to invest in new technology, and older, more-polluting aircraft kept in use longer.

Not content to rely solely on new aircraft technology, the airlines are also helping develop and implement renewable energy sources and cutting-edge operational procedures and navigation technologies, described further below. Seven U.S. airlines have signed letters of intent with a synthetic fuel production company for a future supply of jet fuel derived exclusively from biomass. It is expected that by 2015 the company's facility in Northern California will be able to produce up to 16 million gallons of jet fuel to support airline operations in California. The FAA, along with ATA and other industry organizations, have worked since 2006 in a consortium called the Commercial Aviation Alternative Fuels Initiative (CAAFI) to enhance energy security and environmental sustainability for aviation through alternative jet fuels. CAAFI is promoting the development and deployment of alternative fuels that offer equivalent levels of safety and compare favorably with petroleum-based jet fuel on cost and environmental bases. CAAFI has several notable accomplishments to date, which include development of a new American Society for Testing and Materials International (ASTM) specification for a drop-in alternative aviation fuel. ALPA is fully supportive of the CAAFI effort.

As an indicator of where these kinds of initiatives are leading both here and around the globe, a major European airline recently initiated a six-month biofuel trial on scheduled flights, which will be conducted four times daily. One of the engines of a twin-engine Airbus A321 will run on a 50/50 mixture of regular jet fuel and biosynthetic kerosene, which has been approved for use by the ASTM. The biofuel is made from jatropha, camelina, and animal fats which are produced in a sustainable manner without competing with food production. The total cost for conducting this biofuel project will be almost $9.5 million dollars and during the test period the use of biofuel is expected to reduce CO_2 emissions by up to 1,500 tons.

The Pilot's Perspective

Pilots literally sit at the intersection of new technology, operational measures, air traffic control procedures, and varying aircraft capabilities. Pilots and the airline industry as a whole continue to make great strides toward reducing total fuel burn, noise, and tailpipe emissions. These gains have been realized through technological advances and implementation of operational efficiencies.

Airlines and the aviation industry face unique challenges in making these improvements. First are the long and expensive lead times for the research, development, design, and certification implementation for new technologies to improve operational efficiencies and realize significant fuel reductions. Second is the lack of any economically viable alternative to fossil-based fuel.

Aviation arguably has the most successful record of limiting its impact on the environment, while increasing its productivity, of any industrial sector. Airlines have greatly reduced carbon-based emissions through engine technology which reduces fuel burn and emission of undesirable gases and particulates. Compared to aircraft in use in 1972, the U.S. airline industry now carries six (6) times more payload using 60% less fuel and has reduced by 95% the number of people significantly impacted by aircraft noise. This outstanding record of environmental achievement has resulted in large measure from the airlines continually demanding new aircraft from the manufacturers that burn less fuel, carry greater payloads, and create less noise. Boeing is presently conducting certification test flights of the B-787; due to its cutting-edge technology, that aircraft is designed to use 20% less fuel–and thereby create 20% less greenhouse gas (GHG) emissions–than current aircraft of the same size. This aircraft is just one example of the kinds of investments that the airlines make in a very heavily capitalized industry.

It should be noted that according to the Environmental Protection Agency (EPA), U.S. commercial aviation contributes just 2 percent of domestic GHG emissions; a small fraction of the 25 percent produced by the balance of the transportation industry.

Airline pilots can, and do, save fuel and emissions through various operating techniques. Safety is our utmost concern, of course, but where safety is not impacted, airline pilots will reduce fuel usage through such measures as:

- Single-engine outbound taxi –Under certain conditions, it is not necessary that all aircraft engines be operated to taxi on the ramp or on taxiways. When conditions permit, only one engine may be started out of two or more available engines until reaching the end of the runway for takeoff.
- Engine shut-down during inbound taxi – Once the aircraft has exited the landing runway and is headed to the gate or parking stand, one or more operating engines may be shut down either in the taxiway environment or on the ramp.
- Technology enhanced departure and arrival procedures; new procedures are being developed with the aid of satellite-based navigation. Area Navigation (RNAV) and Required Navigation Performance (RNP) technology permit shortening the distance and time traveled during departure and arrival.

- Optimal altitude – Each jet aircraft, based on weight and ambient conditions, has an optimum altitude where fuel burn is minimized. To the extent that conditions and circumstances permit, pilots often request that optimal altitude in order to conserve fuel, which reduces emissions.
- Optimal-speed flight plans – Planning and operating a flight at an efficient speed can save fuel. Pilots can optimize fuel burn based on aircraft weight, winds, and atmospheric conditions.
- Continuous Descent Arrival (CDA)/Optimized Descent Procedure (OPD) – Normal approach and landing procedures require an aircraft to reduce power, descend to a new altitude, and then add considerable power to level off, before descending again in stair-step fashion. That process may be repeated several times during any approach and landing. A new approach procedure, the CDA, or what we refer to as an OPD, is being developed that permits pilots to reduce power on all engines and not use significant thrust until safety concerns dictate establishing a stabilized approach configuration just before landing. This procedure cannot work at all airports at all times due to operational constraints, but at those locations where it can be used, it can save substantial fuel on a single approach.
- Reduced Vertical Separation Minimum (RVSM) – Taking advantage of improved technology, appropriately equipped aircraft can now fly with 1,000 feet – compared with 2,000 feet previously – vertical separation at higher altitudes. This operational change added six additional useable altitudes increasing the opportunity for pilots to fly their aircraft at the optimal, most fuel efficient altitude, in addition to permitting much greater airspace utilization.

Recommendations

As pilots, we deal with facts, and the facts clearly show that while aviation is a contributor of greenhouse gas and other emissions, it plays only a very small role in the overall issue. Indeed, we could ground the entire world's fleet, and not have any significant effect on climate change. The industry is poised to continue to make great strides in reducing emissions through technology and operating procedures. We believe that the best way to achieve those results is the same way that we have made such great advances thus far, namely, through industry's investments in increasingly advanced technology, alternative fuels and better operating procedures. Allowing the EU to impose an ETS will have very little, if any, actual impact on the amount of GHGs released into the atmosphere by U.S. airline aircraft. However, it will take away from investments in new fuel-efficient aircraft and infrastructure while adding to an already high tax burden.

The EU's ETS is a job killer that has the potential to do severe economic harm to the U.S. economy and U.S. airlines at a time when taxation and unemployment are already very high. Congress should determine what it can do to support the Administration's effort to obtain an exclusion of U.S. carriers from the scheme and act accordingly.

Thank you, again, for the opportunity to testify today. I would be pleased to address any questions that you may have.

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