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Testimony of the
National Agricultural Aviation Association

Submitted to The United States House of Representatives

Small Business Committee,
Subcommittee on Agriculture, Energy & Trade

Regarding
Effects of Fuel Prices on Small Aerial Application Businesses

Thank you, Chairman Tipton, Ranking Member Critz and all members of the Subcommittee for the opportunity to testify on the effects the increase in fuel prices have on small aerial application businesses. My name is Rick Richter, owner of Richter Aviation in Maxwell, California and I am testifying today on behalf of the National Agricultural Aviation Association, also known as NAAA, of which I am the 2011 president. NAAA is a national association which consists of more than 1,600 members in 46 states, and represents the interests of small business owners and pilots licensed as commercial applicators that use aircraft to enhance the production of food, fiber and bio-fuel; protect forestry; protect waterways, pastureland and ranchland from invasive species; and control health-threatening pests.

Aerial application accounts for an estimated 18 percent of commercially applied crop protection products in the United States and is often the only, or most economic, method for timely pesticide application. It permits large and often remote areas to be treated rapidly, thus ensuring timely and efficient service. When wet soil conditions, rolling terrain or dense plant foliage prevents the use of other methods of treating an area for pests, aerial application may be the only remaining method of treatment.

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NAAA members are small businesses providing pest control services to approximately 100 or more customers annually, and often operating across several states in their work. The average aerial application business consists of two operating aircraft and four people (two pilots, a mixer-loader and an administrative staffer).

I have been an ag pilot for 32 years and an aerial application small business owner since 1983. My wife Brenda and I have a fleet of four Ag-Cat aircraft and seeded and treated more than 33,000 acres of rice last year. We also treated alfalfa, almonds and wheat. Our business employs 12-14 people during the busy flying season from April to August and I also farm 450 acres of rice on my own.

Increases in fuel prices in the aerial application industry results in a number of cash-flow and service-marketability issues for the aerial application industry. And of course, the price of fuel always tends to trickle down all the way to the last entity in the supply chain from the applicator to the farmer to the retailer and ultimately to the consumer. According to the United Nations Food and Agriculture Organization, food prices reached a record high in February, and prices in March of this year remained 37 percent higher than those in March 2010. Additionally, the FAO warns food prices may continue to rise and, "it would be premature to conclude that this is a reversal of the upward trend."

At the beginning of the season, the aerial application operator sets a base price per acre treated by air based on the expected cost of operation. This is the amount he charges the farmer-client. On average, fuel probably accounts for about 20 percent of the total expenses an aerial application business incurs. Depending on the type of fuel an aerial application business uses, of which there are two—avgas for piston engine ag aircraft and Jet A for turbine engine ag aircraft—the aerial application operator includes a base price for fuel going into the season. Some applicators stick with this price regardless of fluctuations in the fuel price and, as a result, may lose money when fuel prices go up steeply. Other small aerial application businesses will incorporate a fuel surcharge into their pricing structure. The decision whether or not to use a surcharge is usually determined by prevalent pricing

practices used in the area by competing businesses – both ground and air. My business will charge a specified dollar fee for each acre I treat for a farmer and that fee ranges depending on whether I am putting out wet, dry or seed materials; if the field is short or long; and other variables. Incorporated within that fee per acre charge, is the fuel charge, which, as stated earlier, is based on an average price of fuel per gallon. This ranges depending on the aerial application operation and the type of fuel used, but, on average it is estimated to be about two dollars per gallon. If fuel rises above that figure—again, each aerial application operation is a little different—a fuel surcharge is added. A typical fuel surcharge is calculated as follows: it is the difference between the average price for a gallon of fuel that an applicator builds into his acre charge and the price of a gallon of aviation fuel at the time of application (assuming that the latter is a greater amount), multiplied by the average number of gallons burned by that particular aircraft in an hour, multiplied by the amount of time it took to make the application for the farmer. For example, if an operator builds a two dollar per gallon of fuel cost average into his acre charge and the price of a gallon at the time of the application is $3.50 the difference is $1.50. If the aircraft being used is a turbine powered Air Tractor AT-502, which burns 50 gallons per hour on average and it takes an hour and a half to fly the farmer client's field then the fuel surcharge would be $112.50.[1]

Based on the higher prices that are being set for agricultural commodities today, fuel surcharges in our industry have been met with minimal complaint by farmer-clients because they will be getting a good price for their crop. This isn't something that aerial applicators are taking for granted, however. According to the USDA's National Agricultural Statistics Service, last month (March 2011), the price of corn was $5.46 per bushel, for wheat it was $7.63 per bushel and for soybeans it was $12.10 per bushel. Because farmers expect to receive a good price on their crop they can absorb the higher fuel prices. If this was 2002 and we were faced with the same high prices for fuel, but agricultural commodity prices were much lower, our industry would be facing some real challenges. According to the National Agricultural Statistics Service, in 2002, corn prices were $2.00 a bushel, wheat prices were $2.80 a

[1]($3.50-$2.00) x 50 x 1.5= $112.50 surcharge

bushel and soybeans were $4.30 a bushel. This is a 273 percent increase in the price for corn, a 273 percent increase for the price of wheat and a 281 percent increase for the price of soybeans in nine years. At the same time the average price of Jet A sold at the retail level from an airport Fixed Base Operator, or FBO, in 2002 was $2.37 a gallon compared to $5.26 a gallon today[2], a 222 percent increase. Typically an aerial applicator will buy fuel at the wholesale level, at a cheaper price than what an FBO will sell, if he is working from his own landing strip but at a public airport he will typically pay the FBO price. As of April 6, 2011 the wholesale price of Jet A without taxes was $3.33 a gallon as quoted by a Southeast U.S. fuel supplier[3]. If in 2002 when commodity prices were much lower and Jet A fuel for turbine powered ag aircraft was the same price today or the same price that it was at its height in 2008 when it averaged $4.72 a gallon, it would be much tougher for a farmer to embrace a fuel surcharge for aerial application services rendered. Realistically, when input prices, such as fuel, are high and commodity prices are low a significant drop in the use of aerial application services and other farm services utilized by a farmer would occur as a result of containing costs. This helps the farmer contain expenses but frequently results in less yield and poorer crop quality, hence negatively affecting his revenue potential. The lack of application is a challenge for an aerial application operator or other farm service provider that requires steady business each season to remain viable.

Another challenge aerial applicators face, particularly when fuel prices are high, is the financial terms that fuel-suppliers have for payment of their fuel and how those terms differ from their own accounts receivable terms. The typical payment terms an aerial applicator has with his fuel supplier is ten days with established credit. If credit has not been established then cash is required at delivery. This usually differs from payment terms that aerial applicators' customers are accustomed to paying,

[2] Nationwide Average Fuel Prices on 4/6/2011 based on prices from 3,602 Fixed Based Operators (FBOs) nationwide according to www.airnav.com. These prices include state and federal taxes.

[3] This price does not include federal excise tax levied on Jet A which is 21.9 cents per gallon; the federal excise tax levied on avgas is 19.3 cents per gallon, and the quote for a gallon of avgas on April 6, 2011 was $3.85 a gallon.

which they would ideally like to be 30 days but typically are between 45-60 days. This can pose challenges because, as stated earlier, fuel costs consist of approximately 20 percent of an aerial applicator's total expenses. Aerial applicators buy fuel by the tanker load or more which is 7,800 gallons. It is not unusual for an aerial applicator to have 10,000 gallons of fuel capacity. With the wholesale price of Jet A today at $3.33 a gallon, a tanker load would run $25,974.00. In 2008 when fuel was at its all time high the price of a tanker load of Jet A at $4.72 a gallon cost $36,816.00. If the average ag aircraft burns 50 gallons an hour and is flown 300 hours a season and there are 2.2 aircraft on average per aerial application operation 36,816 gallons of fuel will be required. When an applicator is facing a 20 to 50 day deficit in accounts payable compared to his accounts receivable and outlaying large chunks of capital for fuel this may result in sizeable interest payments for small aerial application businesses. This condition is only exacerbated when the price of fuel increases which is being anticipated this year. The less burdensome aspect to this currently is that interest rates are low, but as the economy rebounds inflation is anticipated and with inflation comes higher interest rates. That coupled with a greater demand for fuel globally will likely lead to a steady increase in the price of fuel and place much greater cost pressures on small aerial application businesses.

These conditions, in some instances, do lead to aerial applicators taking more risk in trying to hedge the price of fuel. For example, aerial applicators may fill up or top off their fuel tanks during the off season when global fuel consumption is low and they believe the price is below what they will pay in the spring and summer during the busy application season. This doesn't always turn out to be the case, plus the small business aerial applicator is not managing his inventory efficiently by using his off-season cash for fuel rather than to earn interest. In addition, problems can arise from storing fuel for too long of a period, this includes moisture in the fuel, algae problems in Jet-A, and possibly evaporation of avgas. Furthermore, the fuel that can be stored at an aerial application operation, at a maximum, is between one-quarter and one-third of the fuel that the applicator will need for the season. The

remainder will have to be purchased as the tank empties during the application season when the price is higher. Some applicators have even taken on more risk and purchased heating oil contracts on the New York Mercantile Exchange (NYMEX), the commodity futures exchange, as a way to hedge against the high price of fuel similar to how Southwest Airlines hedges its fuel, but the aerial applicator doesn't take delivery of the fuel. The price of heating oil is close to the price of Jet A. Again, this is a riskier way to address the high price of fuel and also requires additional capital outlay, or potentially higher interest costs if purchasing on margin. But to address the high price of fuel, again a considerable expense for small aerial application businesses, different approaches are taken to try to save the farmer-customers' costs and the small business aerial applicators' costs.

One other issue of concern to the agricultural aviation industry that is related to fuel supply and may result in another variable increasing the cost of fuel and/or equipment for our industry is the issue to phase out the use of avgas. EPA is collecting information related to the impact of lead emissions from avgas used in piston engine aircraft on air quality. EPA has mentioned the possibility of a new environmental standard associated with avgas due to its emissions of lead in the air. The FAA General Aviation and Part 135 Activity Survey for the 2008 calendar year indicates that avgas, which is still widely used in piston-powered engines, continues to be used in 51.87 percent or 1,569 agricultural aircraft in the U.S. today. It is safe to say that more than half of the agricultural aviation fleet, and therefore the industry, is still largely dependent on leaded avgas. Environmental groups have rallied behind strict avgas regulations and hope to see avgas phased out completely. Some environmental groups have stated they believe any aircraft using avgas containing lead should be grounded until the appropriate modifications can be made.

NAAA's primary concerns are with the safety and feasibility issues associated with a mandated shift from avgas. Approximately 30 percent of currently registered piston-powered aircraft in the United States could not operate safely on a fuel with a lower octane level than avgas. At this point, no suitable

alternative to avgas exists. Although the automotive industry has been able to move away from leaded fuel and make a shift toward alternative fuels such as ethanol, the same fuel transition cannot be as easily accomplished with aircraft. Ethanol, along with many other alternate fuels, is not suitable for use in aircraft. The Aircraft Owners and Pilots Association (AOPA) noted that adding ethanol to aviation fuel could lead to vapor lock, cause corrosion, possibly introduce water into the fuel system and reduce the energy content of the fuel.

NAAA has urged the EPA to consider the cost burden and overall effect on the aviation industry before imposing any new regulations regarding avgas. NAAA has encouraged the EPA to allow time for and devote resources toward the development of a suitable and sustainable alternative to avgas before imposing avgas regulations or banning use of the fuel. NAAA urged the Agency to consider the detrimental economic impacts that could occur should avgas be phased out prior to the development of a safe and practical alternate fuel. Piston engines are a notably less expensive powerplant for agricultural aircraft and for our smaller aerial application businesses it may be the only type of powerplant that may be affordable. They can be several times less expensive than a turbine engine.

Mr. Tipton, Mr. Critz, thank you for the opportunity for me to express to the Committee the issues affecting the aerial application industry in regards to the supply of fuel prices and the supply of fuel for agricultural aviation aircraft. A national policy that can be developed that would ensure a stable price and supply for Jet A and avgas is imperative for our industry and the farmer clients we treat. Also, a continuation of the fuel tax exemption for aviation fuels used for ag aircraft while flying over the farm has provided some relief to our farmer-customers. Our industry provides a valuable service aiding in the production of the safe, affordable and abundant global supply of food, fiber and bio-fuel. The speed, unobtrusiveness and accessibility of aerial application make it invaluable to agricultural production, forestry production, and public-health pest management. We treat between 200 and 250 million acres

alone in the U.S. each year. As such, a steady supply and price of fuel is vitally important to us and our farmer-customers. Thank you again to you and the members of the Subcommittee.

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