

## **Regulatory Brief**

### ***Renewable Fuel Blending: Aviation Gasoline and Automotive Gasoline***

#### **H.R.4357 and S.3553, "10 by 10 Act"**

#### **The Issue**

Legislation (H.R.4357 and S.3553) has been introduced in both the House and Senate to amend the Clean Air Act to require all gasoline sold for use in motor vehicles to contain 10 percent renewable fuel in the year 2010 and thereafter. While the bills do not call for the blending of a specific renewable fuel, ethanol is the most prevalent renewable fuel currently on the market. Ethanol (alcohol) and other blends deteriorate seals in aircraft engines and damage cylinders/pistons by promoting rust — and alcohol attracts water. Neither bill contains an exemption from the blending requirements for aviation gasoline (avgas).

#### **AOPA's Position**

Since fuel blends, including ethanol, cannot be used in general aviation aircraft at this time, AOPA strongly supports an exemption for avgas from any legislation mandating a renewable fuel component. In addition, AOPA supports an exemption of premium grade automotive gasoline with an antiknock index number of 91 or greater from all blending requirements. This will protect the supply of automotive gasoline for aviation and other users that require non-blended fuels.

#### **Background**

Aircraft are manufactured and maintained under a stringent set of regulatory requirements including the fuel utilized. Changes to any component, especially the fuel, are required to undergo significant testing to ensure safety is maintained.

General aviation aircraft use avgas. Ethanol has been tested by a number of sources, including the Federal Aviation Administration (FAA) and one of the largest piston aircraft manufacturers, the Cessna Aircraft Company. In 2002, Cessna highlighted concerns regarding ethanol-based fuels. These concerns included reductions in range due to higher fuel flows, incompatibility with aircraft fuel systems including electric fuel pumps, inaccurate indications on fuel gauges, and the attraction of moisture into the fuel system. Each of these could lead to engine failure and possible fatal results.

The issue of an ethanol component in gasoline has come up in a number of states. Those states that have enacted laws mandating a blended fuel (ethanol) component in gasoline have exempted avgas.

In addition, an aircraft owner may obtain a supplemental type certificate (STC) for some aircraft that legally allows them to use automotive gasoline in that aircraft. The two providers of these STCs have sold more than 57,000 copies each of which prohibits the use of alcohol-blended fuels (methanol or ethanol). To protect the supply of automobile gasoline for STC holders and others, state laws have also exempted premium-grade gasoline with an antiknock index number of 91 or greater from all blending requirements.