



Mr. Mark Rumizen
Federal Aviation Administration
Engine & Propeller Directorate (ANE-100)
12 New England Executive Park
Burlington, Massachusetts 01803

RE: Comments to Proposed Advisory Circular 20-24C

Dear Mr Rumizen:

On behalf of over 9500 members of the American Bonanza Society, thank you for offering a two week extension for comments to organizations coordinating 100LL replacement fuel issues with the Clean 100 Octane Coalition. ABS opposes certain portions of the proposed Advisory Circular 20-24C, but more importantly, seeks to avoid the negative impact revising this AC is likely to have on the future of the existing general aviation fleet.

Replacing leaded aviation fuels with an unleaded alternative is an important and necessary [part of our future as good citizens and stewards of the environment. Any replacement fuel must, however, be capable of sustaining full rated power within existing temperature and pressure limitations in existing aircraft engines. This is an issue of:

- Safety, because reduced maximum horsepower limits takeoff and climb performance, may impact range, and erodes single-engine climb performance in light piston twins, and
- Economics, because airplanes that cannot attain full performance are seen as greatly reduced in value. This creates a dramatic ripple effect throughout our already struggling industry, as airplane owners are less likely to upgrade or operate these airplanes, and potential owners are far less likely to buy them.

Why am I writing about this to you? Because the language of the proposed AC 20-24C creates significant uncertainty that a full-rated-power 100LL fuel will be approved before environmental pressures end 100LL distribution. Uncertainty affects economics; there is anecdotal evidence that our industry is already feeling the economic crunch of this uncertainty.

Two passages in the proposed AC are particularly unsettling. Section 2, paragraph b states:

If we find that following this AC would not result in compliance with the applicable regulations, we will not be bound by this AC, and we may require additional substantiation as the basis for finding compliance.

No business will be willing to undertake the enormous investment of research and development of a 100LL replacement fuel without knowledge of the specific procedures and requirements to follow. Section 5, paragraph b notes:

Historically, the FAA has used the voluntary consensus standards from ASTM International (ASTM) or SAE International (SAE) to identify fuel and oil grades, designations, or specifications that were to be identified on a TCDS.

History shows that the voluntary industry participation in ASTM, valuable though its standards, results in a very slow pace of progress. This comes at a time when we need to move forward rapidly to remove uncertainty and preserve the value of the aircraft fleet, to protect the viability of the industry that supports it. The existing guidance of AC 20-24B provides fuels researchers the ability to demonstrate their product directly to FAA, with approval under Supplemental Type Certificates. ASTM adoption, though important, comes later.

Finding a suitable replacement for 100LL that retains safety and performance in a manner timely enough to avoid the negative economic impact of long-term uncertainty about existing airplanes' future requires leadership by the Federal Aviation Administration as described in AC 20-24B. The proposed revision abdicates this leadership role and casts an uncertainty over the entire process of fuels certification that threatens the very future of the airplane fleet the Advisory Circular seeks to protect. The American Bonanza Society opposes the proposed revision to 20-24 and urges FAA to resume leadership of the general aviation fuels approval process.

Sincerely

A handwritten signature in black ink that reads "Thomas P. Turner". The signature is stylized with a large, looped initial "T" and a long horizontal line extending to the right.

Thomas P. Turner
Executive Director
ABS Air Safety Foundation