

# EAA MILE HIGH CHAPTER



PRESIDENT  
KIRBY WHITE  
423-5134

VICE PRESIDENT  
KEN LYSEK  
457-9769

SECRETARY  
KIRBY WHITE  
423-5134

TREASURER  
ROY MANEELY  
371-3370

NEWSLETTER  
KIRBY WHITE  
423-5134

VOLUME 14, ISSUE 6, JUNE, 1991

THIS MONTH'S MEETING: The meeting this month will be held on Saturday, June 8, 1991 at 7:30 P.M. in the downstairs room on the Southeast corner of the large white building (B-8) which is located to the Southeast of the control tower at Jefferson County Airport. This is where the Deli is. The program will be a slide presentation and talk by Damon Trimble about safe descent and arrival procedures while flying into unfamiliar airports during cross-country flights. He has a lot of experience with this, as he flies about 350 hours a year (95% of which is cross-country in his Mooney 201), and decided to put his knowledge to good use by putting it into a presentation to share with others. His Dad was a Cessna dealer, and Damon had 1500 hours before he joined the Navy. He flew F-4s from carriers a total of 2000 hours, and has also flown A-4s, helicopters, and DC-3s. This should be an informative program for everyone who flies. The new owner of The Deli has offered to stay open on our meeting night from 5:00 P.M. until 7:00 P.M. in case any of us would like to come a little early and eat before the meeting.

THIS MONTH'S CAFE 43: The Fly-Out this month (note the new name) will be to The Sidney, Nebraska Airport for lunch on Saturday, June 15, 1991. This is the Saturday after our normal second Saturday meeting. We will meet at The Sidney Airport at 11:00 A.M. and eat at the restaurant which is located on the field. Ken Lysek is coordinating the monthly Fly-Outs, so contact him at 457-9769 if you have any questions or have an extra seat to offer or are in need of a ride. If the weather happens to not allow us to fly to Sidney, we will meet at The Deli in the same building as our meetings at Jeffco Airport at 11:00 A.M., as voted at the May, 1991 Chapter 43 meeting. We now have a name for this Chapter 43 monthly gathering, so everyone will know exactly what event is being spoken of. The winner, which was selected at the May, 1991 Chapter 43 meeting, was CAFE 43. CAFE stands for Culinary And Flying Expedition, and I hope the 43 is self explanatory. Chuck Ogden made the chosen suggestion.

LAST MONTH'S CAFE 43: No one called to let me know whether they had gone to either Scottsbluff, Nebraska or The Deli at Jeffco Airport for lunch. If anyone went, I hope they had a good time.

LAST MONTH'S MEETING: With 55 members and guests in attendance, the meeting of May 11, 1991 was called to order at 7:45 P.M. by President Kirby White in Building B-8 at Jeffco Airport. The minutes of the April meeting were approved as published in the Newsletter.

Guests: There were no guests present at the meeting.

Old Business: Kirby let everyone know that Treasurer Roy Maneely still had 1991 EAA Calendars for sale for \$4.00 each.

CAFE 43: Ken Lysek reminded everyone to meet at The Scottsbluff Airport at 11:00 A.M. on the following Saturday, May 18, 1991, for lunch. Ken said that if the weather would not permit us to fly to Scottsbluff, we would meet for lunch somewhere else. It was voted to eat at The Deli at Jeffco Airport (which is in the same building as our monthly meetings) at 11:00 A.M. Ken asked for suggestions on the Fly-Out location for June. The suggestion of The Sidney, Nebraska Airport with an 11:00 A.M. arrival time there was approved. Also approved was The Deli at Jeffco Airport as a bad weather lunch location at 11:00 A.M. Kirby mentioned that The Deli had a new owner, and the menu had been expanded. Copies of the menu were available at CASI's front counter. Those who had eaten at The Deli since the change in ownership said the food was good and the prices quite reasonable.

New Business: John McCabe related a story that could affect all of us who work on airplanes. It seems that a Hobbs meter was installed in a twin-engine airplane, and a switch in the nose wheel well to start the meter when the airplane became airborne was wired. When the plane took off the landing gear immediately retracted and the plane settled back to the ground, destroying both engines and propellers and doing damage to the belly. The pilot was accused of raising the gear too quickly, which he denied. After the airplane was rebuilt with two new engines and propellers, another pilot took off. Again, the gear retracted too soon, and the plane bellied in. This ruined two brand new engines and propellers. This time a very thorough check was made of the electrical system, and it was determined that the Hobbs meter switch in the nose wheel well, in conjunction with the unloading switch, were causing the gear to retract as soon as the airplane got a little light on the wheels. John urged us to thoroughly check all of the wiring that we do. Ken Strong brought in a copy of the first issue of the new magazine Contact!, which has the goal of exploring the wide world of the individual experimenter. Contact! is published by a nonprofit corporation purposely organized to comply with Federal Statutes for educational purposes. This first issue dealt exclusively with using automotive and motorcycle engines for aircraft use. The Ross Aero Planetary Reduction Unit, manufactured in Tucson, Arizona, was featured and covered in depth. Each issue will go into detail on one subject, rather than present just one article like most magazines. Ken said if a number of us signed up to receive the magazine, the subscription rate would be lowered to a fair amount. Along the same lines, Fred Seal reported that he and Kirby had been in Tucson around the end of April and had spent several hours over the course of two days at Ross' machine shop. Fred said that Louis Ross and his son Chris were very receptive of us, as we didn't let them know we were coming, and opened up their operation for us to look over and answered all of the questions we could ask. They are very enthusiastic about what they are doing, and had many different automotive and motorcycle engines in various stages of reworking to make them suitable for aircraft use. Fred said that anyone who is in Tucson should stop in and talk to both of the Rosses and see what they are doing. Ken Strong announced that A. Scott Crossfield, who has had a very enviable aviation career in the military and is very well known in aviation circles, was set up to give a benefit presentation about his experiences at Littleton High School on Tuesday, May 28, 1991. The program's tax deductible admission/donation of \$8.00 would help students in the Advanced Aeronautics Program at Littleton High School take their Fisher Classic Biplane to Oshkosh for display this year. Ken urged all of us to attend if we possibly could.

Gene's Corner: Gene Horsman reported that Piper and Aerospatiale have called off negotiations for Aerospatiale to purchase Piper. The reason given was Piper's strategy of self-insurance and vigorous defense of product liability suits. The French didn't believe that they could carry this off like Piper did. Seems like a rather weak excuse! The U.S. Supreme Court let stand the mandatory retirement for airline pilots at age 60. A British firm's U.S. subsidiary, Aviat, Inc., bought Christian Industries in late March. The Pitts Special, Husky, and Eagle aircraft will continue to be built in Afton, Wyoming, but under the name Aviat, Inc. Spin training for student pilots almost became a reality again with the new FARs that went into effect on April 15, 1991. Instead, Flight Instructor trainees must have a spin endorsement, but not student pilots. Also, anyone being checked out in tailwheel airplanes after April 15 must have a log book endorsement from an instructor. In addition, high altitude training and endorsement now will be required for pilots operating aircraft capable of flying above 25,000 feet. A U.S. and a Soviet pilot will attempt to circle the globe in a Navy N3N biplane this summer. The route will start and finish in Walla Walla, Washington, and the flight will depart on June 29, 1991. Let's hear it for antique aircraft! U.S. Senator Nancy Kassabaum of Kansas has again introduced product liability reform legislation in Congress. This is the fourth time she has tried to get a tort reform bill passed. She has twenty-six co-sponsors for the bill so far. It would exempt manufacturers from liability claims for aircraft more than twenty years old. The bill applies only to powered aircraft. Let's hope it will make it this time. A couple of our local EAA folks (Ron Denight and John Evens) have been test flying the Ray Jefferson portable Loran unit and say it does everything claimed for it. It measures approximately 3.5" x 7.5" x 2", and weighs just one pound. It will run between 12 and 15 hours on the internal battery (which is rechargeable), and can be wired to the aircraft electrical system. With the proper preamp, it shares the Com antenna. The only drawback that Ron has discovered while flying cross-country was a problem with the sun making the display hard to read. We know where it can be purchased for \$197.95. Well worth the money. The Burt Rutan designed Pond Racer has begun an accelerated test program aimed at clearing the flight envelope as quickly as possible. The Pond Team intends to challenge a 528 MPH speed record for piston-powered aircraft this summer, and participate in next fall's Reno Air Races. Gene had a very extensive list of plastic model airplane kits that are available on the market. He invited anyone interested in looking at the list to do so during the break. He said that most everyone would be surprised at some of the obscure planes that can be purchased and built. Gene read a humorous takeoff checklist that everyone enjoyed hearing. The checklist is printed elsewhere in this Newsletter.

Progress Reports: Bob Lee, who owns a fiberglass manufacturing company, reported on an inadvertent test that was made on a belly pan that he had designed and built for a Mooney. The purpose of the pan is to prevent engine and propeller damage in case the airplane is accidentally landed gear up. The test was made at Greeley (not by Bob, thank you), and the pan did an admirable job. There was no engine damage, but the propeller sustained some contact with the runway. The Mooney was back in the air within 24 hours, and it was estimated that the belly pan saved \$12,000 in engine damage. Bob was pleased with the performance of his pan, but he plans to increase the size of it slightly to try to avoid any propeller damage. Then he will need another volunteer to test it! Gene Horsman said that he had

Progress Reports cont: flown the Luscombe that he and Darl Kemper own for the first time after quite a bit of work. They replaced the 65 HP engine with one of 85 HP, and also installed wing tanks. The new engine started on the first pull. The airplane now has better takeoff and climb performance, which is exactly what Gene was trying to achieve. The only problem in twenty-four flight hours was that one of the wing tanks started leaking. They removed the wing and sloshed the tank while it was still installed in the wing. That was a job for several people! Gene hopes that will take care of the problem.

A&P: The business portion of the meeting adjourned for coffee at 8:20 P.M. After the break, Gene Horsman showed a videotape on the restoration of an award-winning Luscombe Phantom.

BAD NEWS: Chapter 43 member Mike Goodman died of liver cancer on May 16, 1991 at 5:30 P.M. This was news to me, as I had no idea he was sick. From talking to his Daughter, I found out that it was quite sudden and he died within a very few months. Mike had been a member of Chapter 43 for a number of years. Condolances to Mike's family and friends.

REGIONAL FLY-IN: The 13th Annual Rocky Mountain Regional Fly-In will be held this year on June 22-23 at Greeley's Weld County Airport. We are hoping for nice weather and a good turnout of airplanes and people. Chapter 43 is committed to helping with Aircraft Parking and the Pop Stand. If you would like to volunteer some of your time for a good cause, we could certainly use your help. Doug Bloomberg called and asked me to announce that on Saturday the 22nd, the Colorado Wing of Van's Airforce will have a potluck picnic and meeting after the airshow for RV builders and enthusiasts. Dick Van Grunsven has been invited to the Fly-In, and may attend with one of his RV airplanes.

CHEYENNE AERO TECH: Once again, this year Cheyenne Aero Tech is planning an Open House. It will be on Sunday, August 11, 1991 from 12:00 P.M. to 4:00 P.M. They are interested in having about twenty airplanes fly up and display for a few hours. They will need all of them in place no later than 11:00 A.M., and each pilot will receive \$50.00 to help defray the cost of the fuel and maintenance. If you are interested in helping them out, please confirm your intentions by June 15, 1991 to Archie Randall at 1-800-366-2376.

CALENDARS: We still have 1991 EAA Calendars to sell for \$4.00 each.

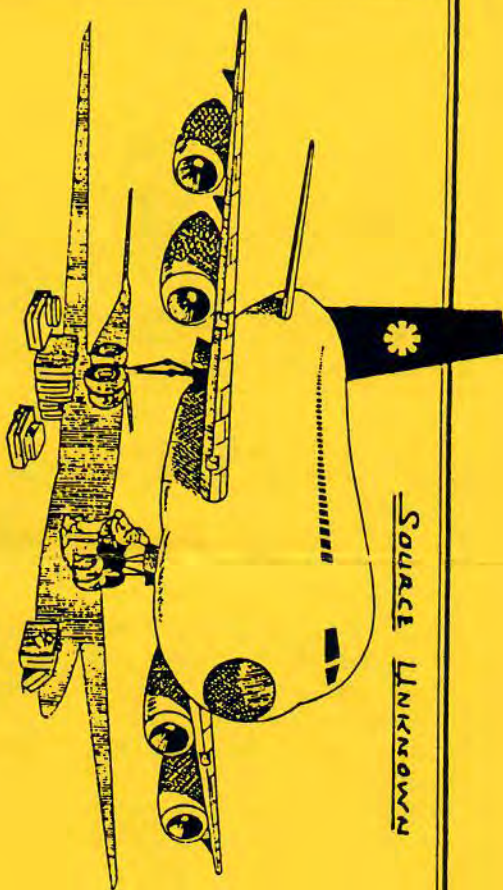
MARKETPLACE: For Sale: Air Compressor, 1.5 HP, 2 cylinder, 30 gallon vertical tank, \$175.00. Brad Davenport 666-5744

For Sale: Three Goodyear Flight Custom 15x6.00-6 tires with tubes, Near new condition, \$25.00 each. Phil Young 665-5773

Wanted: Complete Lycoming O-360-A1A (or similar model) for RV-6, No propeller strikes, Dynofocal mount preferred, Price and condition negotiable. Mas Yoshida 421-2776

Wanted: Continental O-200 oil sump. Dick Weppner 447-9939

AVIATION HAPPENINGS: June 14-16, 1991 First National Gathering for Canard Type Airplanes at Olathe, Kansas  
June 21-23, 1991 OKC Fly-In at Pauls Valley, Oklahoma  
June 22-23, 1991 13th Annual Rocky Mountain Regional Fly-In and Airshow at Greeley (Weld County) Airport  
July 26-August 1, 1991 Oshkosh  
October 5-6, 1991 Copperstate Fly-In in Prescott, Arizona



## CHECKLIST

- |   |  |
|---|--|
| <input type="checkbox"/> Two things that stick out the sides. .... CHECK!   | <input type="checkbox"/> All the dials and arrows that tell us stuff like how high we are going and how fast we are going. .... CHECK!                                 |
| <input type="checkbox"/> Things that go up and down on the things that stick out the sides. .... CHECK!                                 | <input type="checkbox"/> The things that go down to slow us down when coming in for a landing. .... CHECK!   |
| <input type="checkbox"/> Did you look to see if we have three sets of wheels? .... CHECK!   | <input type="checkbox"/> The switch that makes the wheels go up and down. .... CHECK!  |
| <input type="checkbox"/> Two little pedal things. .... CHECK!   | <input type="checkbox"/> The gadget we can turn on to make the airplane fly all by itself. .... WHAT?!   |
| <input type="checkbox"/> Two steering wheels. .... CHECK!   | <input type="checkbox"/> The thing that looks like a TV screen with a line going around in it that keeps us from hitting things that go bump in the night. .... CHECK! |
| <input type="checkbox"/> One owner's manual. .... CHECK!  | <input type="checkbox"/> The written speech to be given to passengers when the going gets rough. .... CHECK!   |
| <input type="checkbox"/> The levers that make the airplane go fast. .... CHECK!   | <input type="checkbox"/> Book of Common Prayer. .... AMEN!   |
| <input type="checkbox"/> The gadget that let's us talk to the folks in that high building that has lots of glass around it. .... CHECK! |  |
| <input type="checkbox"/> The coffee machine. .... CHECK!  |  |
| <input type="checkbox"/> The things that snap together so we don't fall out of our seats. .... CHECK!                                   |  |

## Is 100LL Fuel Doomed?

Some say the Clean Air Act means the end of general aviation. Despite alarmist cries from some quarters, we don't think it will.

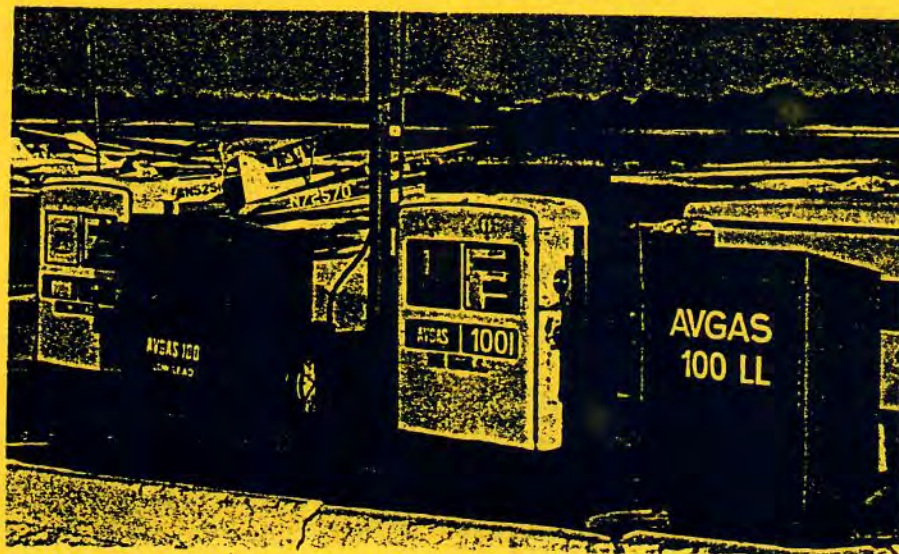
The Clean Air Act passed by Congress last year may clear the air of more than pollutants—airplanes, for example. At least that's the fear of some aviation-industry observers. Due to an apparent misinterpretation of the wording of the act, some industry groups have voiced

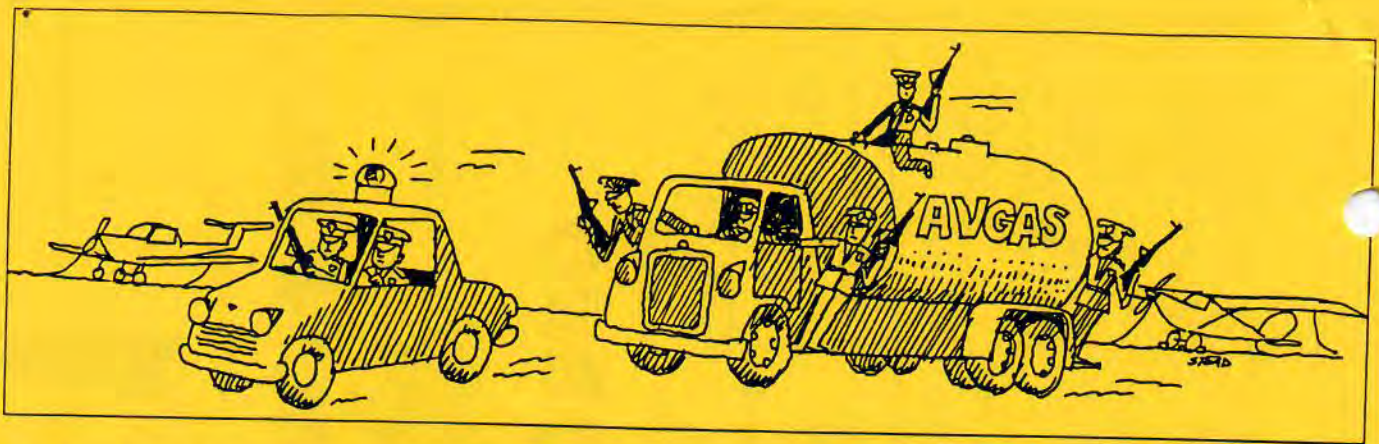
concern that 100LL avgas may no longer be legally sold after 1993. The act states that, as of January 1, 1993, leaded fuels may no longer be sold for use in motor vehicles. This has led some to believe that aviation's 100LL would be included.

Some also interpret the act as halting production of current-design aircraft engines. Worse, and far more alarming, is the fear that engines already out there flying and re-

turned to service after that date. If true, this would turn many thousands of aircraft engines into boat anchors and paperweights, and leave thousands of aircraft without any engine at all. That's because the act prohibits the "introduction into commerce" of any engine which requires leaded fuel. This prohibition is slated to take effect on January 1, 1996.

*Will 100LL vanish from the face of the airport? Some industry groups say it soon will.*





Are these fears justified? Will EPA really ban both 100LL and the engines that burn it?

### Legal Definitions

The Clean Air Act does, indeed, ban the sale of leaded motor fuels after January 1, 1993. However, the act refers specifically to motor vehicle fuels. Mary Smith, head of EPA's Fuels Enforcement Division, told *The Aviation Consumer* that motor vehicle fuels, as defined by EPA, do not include aviation fuels (i.e., 100LL). The distinction lies in the use of aircraft. Motor vehicles are considered to be those which use the highways. Aircraft are considered to be off-road vehicles, like moto-cross motorcycles and dune buggies (or even farm tractors). As such, their fuel is exempted from the no-lead law.

Smith went on to point out that, although the Clean Air Act does not stipulate that EPA can or must ban 100LL, the agency has always had the statutory authority to do just that. She noted that EPA has not acted upon this so far, and the agency has no intentions of doing so in the future. As far as EPA is concerned, as long as companies are willing to make 100LL, and people are willing to buy it, that's just fine.

The General Aviation Manufacturers Association (GAMA) contends that, despite the lack of a specific ban on 100LL in the newest Clean Air Act, and despite EPA's stated intention to allow the fuel to continue in production, the fuel will go the way of the passenger pigeon anyway. GAMA spokesman Henry Ogrodzinski says that, since leaded

fuels for cars will be banned, the refiners will not want to make 100LL for aircraft because they comprise such a small part of the market.

GAMA chairman Rick Sontag (who is also president of Unison Industries, maker of Slick magnetos), speaking at GAMA's Annual Industry Review, pointed out that, "General Aviation uses less than two tablespoons of fuel out of every gallon used for transportation in this country. Since we [general aviation] are such a small market for petroleum refiners, we may be squeezed out." GAMA is now planning to hold meetings in Washington with member companies, refiners and government officials from either FAA or EPA, or perhaps both—the guest list had not been finalized by presstime.

### A Refined Theory

While the statistics that Sontag and GAMA point to are generally accepted as correct, this doesn't mean that avgas production is without merit (or profit) for the refiners and oil companies. Indeed, there is much evidence to indicate that the basis of avgas will actually expand.

Although avgas constitutes between 0.20% and 0.24% of all gasoline production, one of the primary components of avgas is crucial to making unleaded autogas. A refined product known as aviation alkylate accounts for about 80% of a gallon of avgas. The remaining 20% are comprised of light naphtha (another petroleum product produced in fairly large quantities by all refineries) and toluene (a solvent). About

*Some alarmists feel avgas may become so rare and expensive that fuel trucks will need armed guards.*

2 milliliters (mL) of tetraethyl lead (TEL) are added to each gallon of avgas to boost octane and anti-knock performance

Autogas, or mogas as it's sometimes called, also contains large amounts of aviation alkylate. It turns out that as lead has been mandated out of autogas, aviation alkylate has been blended in, in greater and greater quantities to maintain or boost octane. Indeed, with the exception of toluene and TEL, everything that goes into avgas gets put into autogas.

Thus, it seems unlikely that any ban on leaded autogas will convince refiners that it's not worth making avgas anymore. Since they've got to manufacture most of the basic blend of avgas in order to make autogas (and indeed will be boosting that level as time goes by), the only constraints will be the availability of TEL and toluene, and the problems of transporting avgas to the airports. Besides, as one industry observer noted, the refiners currently making avgas won't stop because the profits are so high.

### The Engine Question

The Clean Air Act does have some application and implication for aviation. It seems that the act does ban the production of engines which use leaded fuels. This ban extends to all powered vehicles, off-road or on. In aviation, this could mean an end to engines designed to run on 100LL.

But even here there may be a loophole. This ban is scheduled to take effect in the 1996 model year. Aviation manufacturers do not operate on the model-year principle anymore (though it once was the fashion). Engine makers in particular do not unveil new engine lines every year. Thus, it remains to be seen whether Continental and Lycoming will be faced with having to redesign their engines to operate on unleaded fuels.

However, the feeling from EPA at this point is that the ban will go into effect on aircraft engines, regardless of the model-year issue.

There's also the question of grandfathering, a time-honored tradition in aviation. Does the Clean Air Act, if applied to aviation, mean that any engine produced after 1995 has to be able to run on no-lead gas? Or will designs already in production be able to continue unchanged? EPA's Smith could not say. However, she did say that grandfathering of existing designs was unlikely.

An upshot of the lead-eating engine ban may be to force the engine makers and airframe builders into accepting autogas as a legitimate fuel for some aircraft. As is now well known, most lower-compression engines can be STC'd to operate on autogas. Indeed, since the Experimental Aircraft Assn. gained

the first autogas STC, many thousands of trouble-free hours have been flown on mogas.

Studies by FAA into the operating experience of autogas burners have shown no appreciable problems. What few problems have cropped up have been shown to be unrelated to autogas usage.

Thus, faced with FAA's conclusions and EPA's mandates, the engine makers may find themselves forced to accept autogas. As a possible alternative, they may also adopt alternative fuels (more on this later).

### No Overhaul?

Some in the GA industry have also expressed fears that, under the newest Clean Air Act, owners would not be allowed to get their engines overhauled and returned to service. Again, because of the ban on "introducing into commerce" any lead-eating engines, some feel that this precludes returning an overhauled lead-eater to service.

However, EPA's Smith notes that no such stricture has ever been applied to automotive engines, which have been subject to much tighter scrutiny over the last 20 years. An analogous situation would be the owner of a 1962 Chevy pickup truck getting his engine overhauled. It's perfectly legal, provided no modi-

fications are made (like boring and blowing the engine). And it can be put back out on the road without having to get costly emission controls installed (which are required on any new motor vehicle engine "introduced into commerce").

At presstime, however, the overhaul question was still up in the air, so to speak. Smith was endeavoring to get a ruling from EPA's general counsel about this. Of course, *The Aviation Consumer* will keep its readers up to date on any developments.

### Alternate Fuels

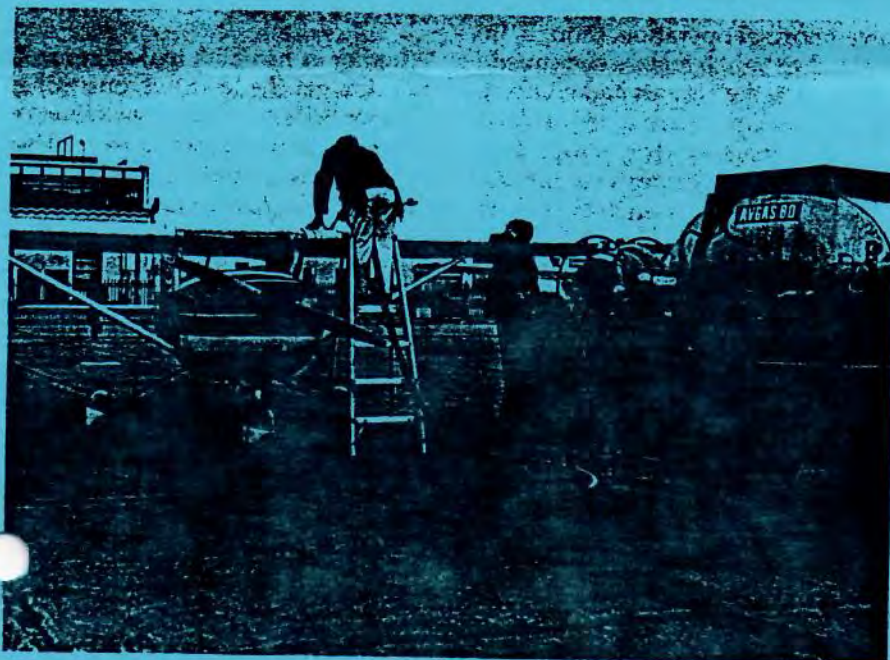
Although EPA has declined, so far, to ban 100LL avgas, that doesn't mean they never will. What if they do?

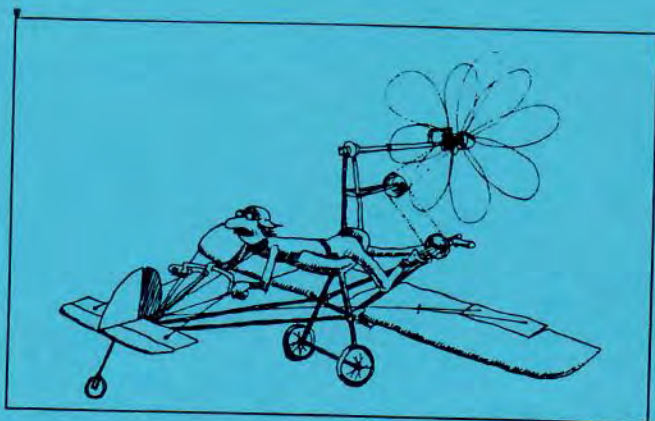
Some aviation and fuel-industry spokespeople have been quoted as saying that the highest octane rating that would be available would be a mere 93.5. This would significantly decrease the detonation margins of many high-power engines. Some engines would not be able to operate at all. And, of course, engines designed and certified to run on 100LL would be grounded for lack of fuel.

Others state that 100-octane unleaded fuel may be obtainable, but it would likely be very high in aromatics. This could produce some adverse affects on fuel system components like seals and gaskets and rubber products. Indeed, similar distress was experienced by many aircraft components after shifting to 100LL from 80/87, which had a lower aromatics content.

As previously mentioned, autogas is an alternative for some. Indeed, FAA estimates dating back to 1987 showed some 40,000 aircraft operating under autogas STCs. Although these are predominantly aircraft with low-compression en-

*First 80/87 avgas virtually disappeared. Now it appears 100LL is having its existence threatened as Congress and EPA try to get the lead out of the nation's fuel supplies.*





*Someday, this may be the only acceptable (and affordable) form of propulsion. But for the foreseeable future, avgas and piston engines are here to stay.*

gines, progress is being made towards certifying even high-compression engines for autogas. However, this requires some modifications to the engine—for example, installing Anti-Detonation Injection (ADI, a system first developed during World War II) and various other changes.

Of course, alcohol has been considered as an alternative fuel for both aircraft and automobiles. Several studies have been done over the last 15 years to examine alcohol's suitability as a motor fuel. However, because of the low energy of alcohols, aircraft power and range suffer too much. Unless there are some dramatic breakthroughs in the thermal efficiency of engines, don't look for alcohol engines anytime soon (outside of racing circles, that is).

Yet another alternative fuel that has been examined is MTBE, or methyl-tertiary-butyl ether. MTBE is a high-octane blending agent used to raise the octane rating of some brands of autogas. It is readily available from domestic sources (hence not subject to price swings during international crises), and it has about 84% of the energy per gallon of avgas.

All by itself, MTBE has an octane rating using the research method of 116, and a motor octane number of 98. This beats the best unleaded autogas, which has an octane rating of only 93. MTBE's octane rating, using the same method as that for autogas, is 107 (Research

method plus Motor method divided by two).

Testing of MTBE was carried out in 1987 under the auspices of DOT, FAA and the National Institute for Petroleum and Energy Research (NIPER). The

tests were conducted in a Beech Musketeer, which the researchers deemed had the most complex fuel system of the three aircraft in their test group (the other two were a Cessna 172 and a Grumman Traveler).

The tests showed great promise for MTBE. Takeoff, climb and cruise tests were conducted, and the fuel-engine combination worked quite well. Post-testing teardown of the engine showed no signs of wear, corrosion or any other distress. Climb performance and range were nearly identical to that of 100LL.

However, MTBE use did present some minor caveats. Firstly, it tended to make an engine run lean. Researchers had anticipated this, and so set the engine timing back five degrees to compensate for it. They then found that the engine would start on this fuel, but would not idle without the boost pump on. Running the boost pump allowed normal operation, though. In flight, the slight leanness continued. By the time the aircraft had climbed to 5,000 feet, the change in air density had evened things up. But when the boost pump was turned off, the leanness returned. However, this had no adverse effects on the engine, and it again evened out as the airplane climbed higher.

Researchers noted some other, perhaps unpleasant, aspects to using MTBE. The fuel itself smells bad. They noted that prolonged breathing of MTBE vapor caused a headache. The exhaust gas smell also changed, becoming bittersweet instead of the usual fried avgas odor. The fuel cap O-ring was also noticed to be swelling as the tests progressed. It eventually became diffi-

cult to remove. However, this was not considered a major drawback.

Finally, it turns out that MTBE can remove paint. In some places on the test Musketeer, particularly where tape was used to hold down thermocouple wires from the fuel tank, the MTBE traveled along the tape. The paint came off when the tape was removed. Researchers noted that this was Beech factory paint. The implication is that a different formula paint (and a different composition fuel cap O-ring) could overcome these chemical problems.

### Lycoming Moves Ahead

Lycoming tells us they are looking into alternative fuels for their engines. Spokesman Peter Bates says that the firm recently arranged with several oil companies to test a variety of alternative fuels. At the same time, though, Lycoming does remain adamant in its opposition to autogas. Despite the results of years of flight experience and the FAA and EAA studies, Bates says, "We're going to hold our position on that. It's not an approved fuel for Lycoming engines."

By presstime, Continental had not responded to our queries regarding either the new EPA rules or the prospects for alternative fuels.

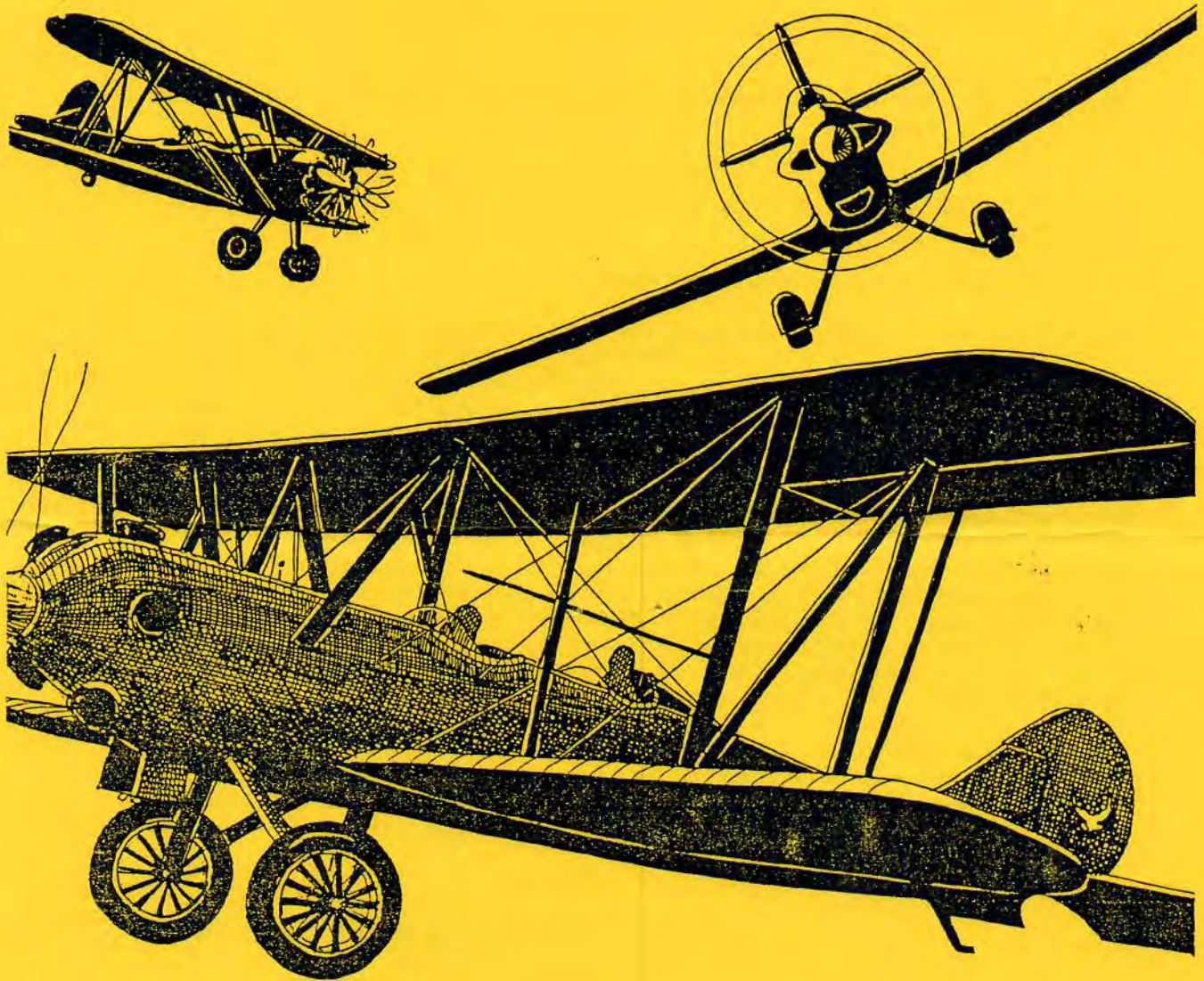
### Whither Now?

Whether or not EPA makes general aviation get the lead out, one thing is clear: Sooner or later, gasoline as we know it will cease to exist. The implications are not hard to see. The future of GA, as well as that of the country, will depend upon the far-sightedness of both our political leaders and industry. If the airframe and engine manufacturers make the efforts now to explore and define alternative fuels for the future, we may be able to transition to these new fuels without too much pain or confusion.

However, if they choose to wait until a crisis is reached, neither they nor general aviation may survive.

John Likakis





# ROCKY MOUNTAIN EAA REGIONAL FLY-IN OPEN HOUSE & AIR SHOW

GREELEY WELD CO AIRPORT • SAT. JUNE 22 - SUN. JUNE 23, 1991  
OPEN TO PUBLIC • ADMISSION FREE • \$3.00 AUTO PARKING

SPONSORED BY: EAA - COLORADO ANTIQUE AIRCRAFT ASSN. - 99'S - WELD CO. AIRPORT  
GATES OPEN AT 7:30 AM SAT. & SUN. • FLY-IN CHAIRMAN: BILL MARCY (303) 798-6086  
PANCAKE BREAKFAST • AEROBATICS • PARADE OF FLIGHT • DISPLAY & JUDGING  
HOMEBUILTS • ANTIQUES • CLASSICS • WARBIRDS • ULTRALITES • R/C MODELS  
TROPHIES & AWARDS • ANTIQUE & CLASSIC CARS ON DISPLAY • SANDWICHES & POP

**FRIDAY, JUNE 21<sup>ST</sup>**  
EARLY ARRIVALS WELCOME  
FREE CAMPING AREA  
MOTELS & RESTAURANTS 3 MI  
FREE TRANSPORTATION

**SATURDAY, JUNE 22<sup>ND</sup>**  
PANCAKE BREAKFAST • LUNCHEON  
PARADE OF FLIGHT • EXHIBITS  
FAA WINGS PROGRAM • JUDGING  
AIR SHOW 2:00-4:00 PM (AIRPORT CLOSED)  
(RAIN DATE SUNDAY JUNE 23)

**SUNDAY, JUNE 23<sup>RD</sup>**  
PANCAKE BREAKFAST  
EXHIBITS • FAA WINGS PROGRAM  
FLY-BYS • FLY YOUR BUDDY  
FLY AWAY 12:00 AM

CHEYENNE SECTIONAL • NO TOWER • NO TRANSPONDER • NO ENCODER  
GREELEY WELD CO AIRPORT UNICOM 122.8 • FBO (303)356-9141

May 28, 1991

EAA Chapters: Arizona, Colorado, Kansas, Nebraska, New Mexico, Utah, and Wyoming

RE: ROCKY MOUNTAIN EAA REGIONAL FLY-IN

Dear EAA Chapter Presidents and Newsletter Editors,

All of you have no doubt heard about the upcoming Rocky Mountain EAA Regional Fly-In scheduled for June 21 - 23. This regional EAA event has become one of the most popular regional fly-ins sanctioned by EAA. Each year, this fly-in gives people who do not have the opportunity to attend Oshkosh or any other regional fly-in a chance to enjoy the camaraderie and friendship these EAA regional fly-ins create.

This year, we will have a Chapter Officer's meeting on Friday, June 21 at 7:00 P.M. in the original Greeley hangar building. This is the oldest building on the Greeley Airport and the fly-in breakfast will be held there on Saturday and Sunday mornings. At this meeting, we hope to share many Chapter activity ideas and discuss the ongoing activities currently taking place at the Chapter Office. We urge you to attend and bring any and all of your fellow officers. If you cannot attend, appoint an active Chapter member to represent your Chapter.

We are looking forward to seeing you and your fellow officers. It should be a great weekend for fly-in activities. If you have any questions about reservations or hotels, contact Bill Marcy, Fly-In Director: 303/798-6086 or Bob Kelly at: 303/353-5514. Clear skies and tailwinds, see you in Greeley.

Sincerely,

EXPERIMENTAL AIRCRAFT ASSOCIATION



Robert P. Mackey  
Executive Director  
EAA Chapters and Insurance



Chapter 43 Newsletter  
c/o Kirby White  
8780 West 90th Place  
Westminster, CO 80021



EUGENE HORSMAN  
210 LOOKOUT VIEW CT.  
GOLDEN, CO 80401