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Upward Mobility

Liability Costs Drive Small-Plane Business Back Into Pilots' Barns

As Manufacturers Drop Out, Kit Builders Assemble State-of-the-Art Aircraft

The Brain Trust at Oshkosh

By TIMOTHY K. SMITH
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I dreamed I was an angel
And with the angels soared
But I was simply touring
The heavens in a Ford.

—From a column in the New York Evening Sun, cited by Joseph J. Corn in "The Winged Gospel."

That bit of anticipatory doggerel was written in 1926, when Ford Motor Co. was hard at work on an airborne counterpart to the Model T, a "flying flivver" that would make private aviation safe and affordable for everyone. Though the Ford project crashed, the dream persisted to a degree that is almost unimaginable in an age when the greatest pleasure in flying for many people is the honey-roasted peanuts. By 1945, you could buy an airplane at Macy's.

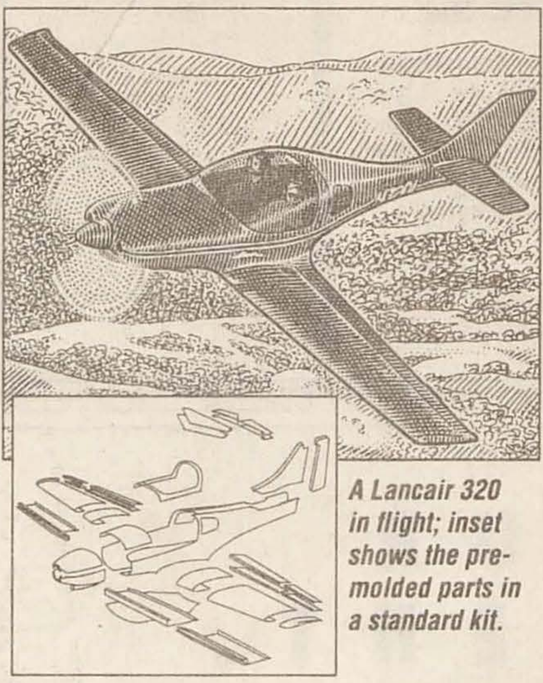
Today, what stands between the dream and oblivion is mostly Paul Poberezny, the unlettered son of an immigrant Ukrainian laborer. He is the founder, chairman and spiritual leader of the Experimental Aircraft Association, a group that, much to its surprise, has inherited an entire sector of American industry.

The business of making small airplanes is all but dead in this country, wiped out mainly by product-liability lawsuits. And in a strange historical turnabout, small-plane manufacturing has reverted to the barns and garages whence it emerged in the 1920s. The next time you see a light aircraft pass overhead, know that it is most likely either obsolescent or a home-made flying machine assembled by one of Mr. Poberezny's 130,000 disciples.

Cessna Aircraft Co., which once dominated the market world-wide, stopped making small planes in 1986. Piper Aircraft Corp. has been operating under Chap-

the major manufacturers at all.

But as the industry has been litigated into the ground, members of Mr. Poberezny's group have exploited a quirk in



A Lancair 320 in flight; inset shows the premolded parts in a standard kit.

federal aviation regulations to assemble a vast and curious network, fitting together airplanes that are cheaper, faster and more efficient than what's available commercially. The quirk is a rule dating from 1949 that makes it legal to fly an airplane that hasn't been certified by the Federal Aviation Administration, as long as you don't use it for commercial purposes—and as long as you build 51% of it yourself. Last year, shipments of airplane kits for home builders exceeded shipments of whole small airplanes by at least two to one.

The Experimental Aircraft Association's name may call to mind a Quonset hut in a wheat field, but its headquarters is actually an $18 million complex in Oshkosh, Wis. The annual convention there is now one of the largest air shows in the world. When NASA comes up with something that will make small planes safer these days—a spin-resistant design, say, or lightning-protection technology—it takes it directly to Oshkosh, says Joseph Stickle, the chief engineer at the space agency's Langley Research Center. "My own feeling is that home builders are going to keep that segment of aviation alive," he says.

The homemade planes are substantial aircraft, not spindly ultralights. Most of them can fly circles around a garden-variety Piper, many are made of advanced composites, and some incorporate airfoils the National Aeronautics and Space Administration developed. A few are genuine feats of shade-tree engineering, like the rakish two-seater that John Stoltzfus had on display at a recent Experimental Aircraft Association "fly-in" at the New Castle County Airport in Wilmington, Del. Mr. Stoltzfus built his plane from scratch, for around $12,000, out of fiberglass and balsa wood. Fitted with a Subaru automobile engine, a reduction gear from a gyrocopter and a carburetor from an old MG, it will cruise at 160 miles per hour, he says.

And what moved him to build it?

"I was tired of my job."

And what sort of job was that?

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Upward Mobility: Fliers Build Own Planes as Industry Falters

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"Body and fender work."

For a quick test flight, let us sidle across the tarmac to Jeffrey Harden, who spent two years and $46,000 building a two-seat Lancair 320 from a pre-molded kit. High above the airfield, sunlight flooding the neatly carpeted cockpit, he tips his epoxy-composite airplane into a dive and mutters happily, "Now we're moving." The air-speed indicator climbs past 220, to 250, to 270 miles per hour—about twice the velocity of a two-seat Cessna. "Ordinary airplanes are nice and they're fun but the designs are 20, 25 years old," Mr. Harden says. "None of them are very economical, and the performance just isn't there."

There are now 13,647 home-built airplanes registered with the FAA, and at least that many are estimated to be under construction. They are a wild bestiary of designs: tandem biplanes with pusher engines; ancient-looking high-wing monoplanes; canard-wing seaplanes; replicas of fighters from both world wars; planes with forward-swept wings for better visibility; planes with wings that fold up so you can store them in a garage. One kit manufacturer is working on a homemade supersonic jet.

All this activity is not a spontaneous efflorescence of backyard technical creativity; it is the product of bitter frustration as much as anything. Burt Rutan, designer of the circumnavigating Voyager aircraft, speaks for many American aviators when he says: "The best technologies to revitalize general aviation in this country would be those that facilitate the jailing of attorneys."

The small-plane makers have had a bad decade for several reasons, including high fuel costs, overproduction and recession. But what is happening now, according to practically every constituency except the lawyers, is a clear case of products-liability law eating a sick industry alive.

The legal doctrine of strict liability is supposed to improve the general welfare by allowing injury victims to collect damages without having to prove negligence by a manufacturer. The idea is that this will induce manufacturers to produce things that are as safe as they can be, "internalizing" the cost of injury prevention; and that it will induce manufacturers to buy enough insurance to cover injury victims' claims, building that insurance premium into the cost of their product.

Applying this doctrine to small planes, which sometimes smash into the ground in huge lethal fireballs, turns out to be problematic. The rate of deaths per hours flown has decreased steadily for decades. Yet the paid claims for judgments, settlements and defense for general-aviation manufacturers jumped from $24 million to $210 million between 1977 and 1985, according to the General Aviation Manufacturers Asso-

closely held international trading company based in Cleveland. Cyrus Eaton Jr., the company's chairman, says it will re-establish Piper somewhere in Canada—where lawyers don't generally collect contingency fees, where punitive damages are limited and where losing plaintiffs may be required to pay defendants' legal costs. The relocation, he says, is intended "explicitly to avoid the liability problem."

George L. Priest, a Yale Law School professor who has studied general aviation's predicament, suggests that it may constitute an indictment of the overall doctrine of strict liability. "It's pretty dramatic evidence of how little effect the expansion of liability has had on safety, and how dramatic the effect on the industry has been," he says.

The American Trial Lawyers Association, which represents plaintiffs' attorneys, denies that there is a problem in the tort system and blames the industry's difficulties on bad management.

All this is particularly bewildering to Paul Poberezny, who at age 67 is old enough to remember when farmers considered it an honor to have airplanes crash-land in their fields. "We'd have a forced landing and knock down some alfalfa," he says, "and they'd say, 'Stay for supper, tie her down, no problem.' Society has changed."

Paul Poberezny

It is not just society that has changed, but the place of aviation in the national imagination. Eight years before Mr. Poberezny was born, flying was such a rich man's novelty that a trade publication saw fit to announce that "William Earl Dodge, brother-in-law of John McCullough, will take up aero-yachting at Newport this season." But by the time Mr. Poberezny was nine years old, author Gore Vidal's father, who was a Commerce Department official, was leading a federal drive to get manufacturers to build a $700 "poor man's airplane." When Mr. Poberezny was 22, the era of "an airplane in every garage" was so generally presumed to be imminent that the makers of Wheaties gave away an airplane in a promotional contest, according to Mr. Corn's aviation history.

Mr. Poberezny himself became obsessed with flight as a dirt-poor Kansas boy ("we ripped up catalogs for toilet paper," he recalls) and started out by rebuilding a wrecked glider given to him by his ancient-history teacher. He started the Experimental Aircraft Association in his basement in 1953, with 32 people attending the first meeting. "I was asked to be presi-

worthy at all it must be built to last a long time; the average age of the general aviation fleet is now over 24 years. Because there is no time limit on product liability, manufacturers can be held liable for accidents in planes whose maintenance and general treatment have been out of their control for decades. Insurance for this "liability tail" must be built into the cost of each new airplane, and the manufacturers say this is pricing their products out of the market, in addition to scaring away lenders and investors.

"We finally just decided that there was no way we could produce an airplane at a profit and at a price that our customers would want to pay," says a spokesman for Cessna, a General Dynamics Corp. unit, which reserves about $25 million a year for product liability. The company, which once used the motto "We Teach the World to Fly," has said it would make a decision about re-entering the small-plane business within 24 hours of enactment of some kind of tort reform.

"You can't amortize the risk," says E. Glenn Parr, Piper's general counsel. "We have a $200 million backlog of orders. If it weren't for the liability tail, lending institutions would be lined up to lend us money."

If the bankruptcy court assents, Piper will sell its major assets next month to Cyrus Eaton Group International Ltd., a

Appeals Court Requires Alan Bond to Repay Loans

By a WALL STREET JOURNAL *Staff Reporter*

SYDNEY, Australia – An appeals court ruled that Alan Bond must repay loans that he guaranteed, a decision that is likely to hasten the entrepreneur's slide toward personal bankruptcy.

The New South Wales Court of Appeal upheld a lower court's decision that Mr. Bond must repay US$194.6 million in loans that he personally guaranteed. The loans are part of a larger pool of US$336.4 million owed to a syndicate of banks led by Hongkong Bank of Australia Ltd., a unit of **Hongkong & Shanghai Banking** Corp. The remaining amount wasn't at issue. The loans were made to fund a nickel-refining project in the state of Queensland that was owned by Mr. Bond's private company, **Dallhold Investments** Pty.

Mr. Bond lost control of his corporate flagship, Bond Corp. Holdings Ltd., last year. Earlier this year, creditors moved to liquidate Dallhold.

The Hongkong Bank syndicate sued Mr. Bond—who says he is broke—for repayment of the nickel loan. Mr. Bond argued in court that he wasn't liable for the money. But in a late September ruling, the lower-court judge said that "in my view, the only person to whom [Mr. Bond] sold the notion that he was free" from the constraints of a guarantee "was himself."

The banks already have served Mr. Bond with a notice of bankruptcy.

Eight companies that were associated with Mr. Bond also guaranteed the nickel loans, and Mr. Bond's lawyer said Mr. Bond is suing to force them "to pay their share to the banks."

the FAA and generally, as he says, "trying to put general aviation back on its feet."

But he has played the role of rumpled patriarch effectively, raising funds for an aviation museum and a foundation, establishing a network of technical consultants, preaching a creed of craftsmanship and turning Oshkosh into an aviator's Mecca. "We call him Dad," says Stephen Teager, an FAA flight-test engineer who has never met Mr. Poberezny. Roy Lopresti, a veteran airplane designer, says, "A million people go through there [at the annual air show], and you never see a scrap of paper or a cigarette on the ground. It's like a religious event. My kids have grown up going to Oshkosh, and to this day, if they've done something wrong, they say, 'What would Paul Poberezny say?' "

As extraordinary as this grass-roots industry is, nobody mistakes it for a long-term solution. The FAA's 51% rule prohibits builders from assembling kits and reselling them (although rumors circulate of clandestine kit-building factories in the Northwest). An industry-backed bill to give airplane manufacturers a degree of protection from lawsuits has been introduced in each of the last three Congresses; each time it has stalled in committee.

"Many people would say that unless we can do something about liability, there is a good chance that this industry may just go away in this country," says Frederick Sontag, chairman of the General Aircraft Manufacturers Association.

But the future of personal aviation looks entirely different to Paul Moller, a former professor of aeronautical engineering at the University of California at Davis. He has spent 25 years and about $30 million developing his "sky car," a computer-controlled, eight-engine vehicle designed to travel on roads, take off and land vertically, carry four people through the air at 350 miles per hour and sell, once mass production begins, for not much more money than an automobile. The prototype still needs a little work, but eventually, Mr. Moller says, "I don't think there's any question that this is something that everyone will use."