The Changing Landscape

A look at the FAA’s tip-to-tail GA airports reveals that traffic levels have changed markedly over a short period of time. According to the General Aviation Manufacturers Association (GAMA) Flight Sales Database, from 2008 through 2011, some airports clearly saw a significant drop in flying activity. Van Nuys in California, the busiest GA airport in the U.S., saw local operations drop to 323,357 in 2011, down from 486,216 in 2008. Certain airports in the Denver suburbs and Chandler Municipal in Phoenix are both down by about 50,000 operations during that time. At some of these airports, GA operations are up, but these numbers also include aircraft types.

The GA numbers don’t break out pilot and turbine GA airplane operations. But beginning with the 2011 survey, there is a column that lists VFR GA airplane operations, which most likely includes predominantly piston-powered airplanes. These numbers show some airports continuing to drop, including Portland, Oregon, that had 320,000 operations in 2003, down to 172,878 in 2011. Portland’s rise in the past several years has been due to the Boeing Flight Training Center.

One of the continuing trends of note is a significant decrease in the amount of piston-powered airplanes flying. Vern Eide, a member of the editorial staff for the National Air Traffic System Association, said that in 2007, there were an estimated 1.3 million piston-powered airplanes in the U.S., while in 2012, there were only about 800,000.

The Changing Landscape

The 17,811 airplanes delivered in 1978 marked a bubble, which the industry struggled to recover from. By the time 1980 rolled around, deliveries had dropped to 9,996. The industry was in a state of maturity, and it’s been declining ever since.

The Changing Landscape

Jodi Noah, senior vice president of single-engine and propeller aircraft, “It’s hard to say what the market will look like in the future. We’ve had a slow recovery, and we’re not seeing any signs of a rebound. We’re still struggling to find our footing.”

During 2012, Piper Aircraft had one of its strongest years in many, many years, according to Drew McMicken, head of global sales and business development. Many of Piper’s business is delivering trainer airplanes to large flight academies around the world, but the company’s M-class singles, including the cropduster model Malibu and the Karlberg Mandala, are selling well all over the world. “I think it’s going to continue to go get better,” he said.

The Changing Landscape

Younger pilots are not finding their local airports to fly to. Flight-school students aren’t buying used trainers and helping the fleet turn over, a process that used to keep manufacturers’ assembly lines humming. Newly minted pilots aren’t buying many airplanes. And the cost of flying light airplanes is freezing many pilots to think twice about staying in the game.

An GA simply transitioning into a new and different form that will have its own dynamics and healthy prospects? After all, the Chinese companies that have purchased so many general aviation assets can’t be putting their chips into a dying market, can they?
Emerging markets hold promise

by Matt Thuerber

GA manufacturers are putting a lot of effort into selling airpplanes outside the U.S. to encourage training and, they hope, a growing wealthy class that can afford to own and operate airplanes. For GA in places such as China, India and the Middle East obstacles and opportunities abound.

In China, “GA infrastructure is virtually nonexistent today,” according to Jay Shaw, managing director of Seacor Capital Asia, which invests in aviation and marine infrastructure in Asia. Although the Chinese government has announced plans to open military-controlled airspace for GA, “there are only a few dedicated spots that have implemented this,” he told AIN.

Most airports are for commercial traffic, and there are no services such as weather data, VFR charts and flight planning for private aircraft owners. Nevertheless, Shaw believes that in five to 10 years, it may become possible for a person to own and fly a small airplane in China.

“We need to see much further action from the government to lobby its military establishment for more airspace and airport access, and for government to encourage and assist private enterprise to development this sector, before we will see anything that resembles a true GA culture in China,” he said.

There is little light air- plane activity in China beyond training, said Chris Buchholz, CEO of Hong Kong Jet. “Low-altitude airspace in the UK you need to be an American citizen or the equivalent to be closed off. That will change, and we’re all hoping that’s going to happen sooner rather than later.”

Buchholz, who is a pilot and flies regularly during trips to the U.S., said that Chinese aviation authorities understand the benefits that GA offers. “Clearly we know GA is a large contributor to the U.S. economy.” But China will never adopt the GA infrastructure of the U.S. What will happen to GA in China will be uniquely Chinese, he explained.

“The priority in China is the country, not the individual. In the modern history of China, there’s never been open airspace. Changing that makes sense only when it makes sense for the country. China is ideal for general aviation, and the government realizes that China needs to find its own path. It can have its own model-China-style and embrace general aviation, but it will need the support of [the military] to make that happen.”

Cessna is forging ahead with manufacturing partnerships with China’s Avic; but has also placed about 200 piston-powered Skyhawks in the country. These are flown by flight academies meeting the burgeoning need for pilots in Asia.

According to Jodi Noah, senior vice president of single-engine and propeller aircraft, the Chinese government is subsidizing new flight-training businesses. “We think that will create a furor of activity,” she said. “They have a tremendous need for pilots, and there’s a big rush to begin training.” Noah is hoping to generate some interest in China to open Cessna Pilot Centers there, although the centers would need to be owned by Chinese interests.

India is also of interest to Cessna, Noah said. “We’re not selling a lot of product there, yet. They’re starting to get more focused on general aviation.”

Piper Aircraft is selling some of its high-performance piston airplanes and trainers in China.

“They need 5000 pilots a year in China,” said Drew McEwen, head of global sales and business development. Surprisingly, “most of Piper’s buyer recently purchased a Meridian turboprop single, he said. “Somehow he got the waivers,” he added.

Piper is also selling trainers in the Middle East. “We do expect the market to open up for the high-performance singles,” he said. “The Middle East is getting pretty aggressive. I think there are pockets where you can actually use aviation. It’ll continue to get better.”

Improving standards of living and new wealth will drive GA growth in these countries, McEwen said. “I really see that it can only improve. When you build wealth, you have the opportunity for aviation [to grow].”

The Old World Bears a Growing Burden

It should be no consolation to aviators in the U.S. that, despite the contraction here, the infrastructure and costs of GA in America remain the envy of the world, particularly Europe, which serves as a stark example of how “creeping taxation” can suffocate general aviation. If you’re ever tempted to think that the GA industry is overreacting to President Obama’s proposed $100-per-flight user fee for turbine private aircraft, consider this UK tale.

Ian Seager owns the UK general aviation magazine AIN. He operates a Reims-built Cessna 182 from a private strip in southwest England and recently calculated the cost for using the airplane to take a couple of colleagues to Paris for a business appointment. The day trip would be two hours each way, give or take, and would require clearing French customs at Le Bourget, which would cost $402. At this time of year the return flight would have ended (and perhaps started) in darkness, rendering Seager’s private strip unusable, so the return destination would have been Bristol, a 20 minutes’ flying time from the home strip. Fees at Bristol for landing, handling, police and navigation charges would total $300.

Bottom line: fees would have inflated to $1,300 a trip that would have cost about $600 in airplane operating expenses. These three would-be GA users took an airline flight instead.

“It’s the small, incremental stuff that catches up with you,” warned Seager. Like the frog that won’t jump out of water, things get worse slowly, so people don’t ‘speak’.

Many other privately used GA aircraft based in the UK, Seager’s 182 wears an N number as a way to circumvent some of the region’s crushing bureaucracy. He estimated that three out of four Cirrusus in the UK wear N numbers rather than a G registration. To own an N-registered aircraft in the UK you need to be an American citizen, so the airplanes are owned by U.S. trusts typically based in Delaware. The advantage is that a pilot of an N-registered aircraft can use a more easily obtained U.S. FAA instrument rating to operate IFR (earning the EASA instrument rating involves seven written exams and 55 hours of flying). Seager said there are no official statistics on the percentage of the active UK fleet that is N registered. Instrument approaches to secondary airfields in the UK are rare since the regulations require full ATC at the destination airport as part of the procedure.

Avrás costs $12.60 a gallon in the UK, and sales by volume have fallen 30 percent in the past five years or so, according to Seager. “It’s a similar story in Germany and Holland—fuel prices and regulations are depressing activity,” he said. —M.T.
For U.S. pilots, ‘security’ measures impede flying
by Matt Thurber

The 9/11 attacks in the U.S. had a profound effect on GA security, particularly the sudden and rapid enactment of so-called “temporary flight restrictions” (TFRs), many of which are anything but temporary. An effort led by compliant legislators forced the government to impose permanent “TFRs” over Disneyland in Anaheim, Calif., and Disney World in Orlando, Fla. No one understands why Disney needs protection in the form of TFRs that top out at 3,000 feet agl, yet other famous entertainment facilities receive no such consideration.

Other TFRs regularly pop up and disappear, usually painting a bright picture of the location of the President at any given time, which makes one question whether the procedure actually enhances security. These TFRs usually include a 10-nm inner ring, closed to all nonmilitary traffic, surrounded by a 30-nm ring open to aircraft on flight plans and not engaged in flight training.

The government gave itself special treatment; a massive area around Washington, D.C., now labeled the Special Flight Rules Area, in which pilots can operate as long as they have filed the requisite flight plan. Even airports located inside the zone’s inner circle have a means of allowing pilots to fly after undergoing FBI background checks.

However, somehow lost in all the frantic action after 9/11 was a considered appraisal of the futility of TFRs. A TFR, after all, assumes that all pilots are complying with the rules, something that terrorists generally don’t do. And it doesn’t take a genius to calculate the damage that, say, a large fast airplane could do by flying legally over a 3,000-foot TFR at 3,100 feet and then plunging into the target. Not a single one of the hundreds of pilots caught, forced down and prosecuted for TFR violations has had anything to do with terrorist acts. TFRs have created a frequency shifting patchwork system that has proved excellent at catching pilots who pose no security threat.

But there is more to post-9/11 security than TFRs. Overzealous TSA officers are on a hair trigger to catch bad guys, leading to the stopping and questioning of GA pilots trying to get to their own airplanes behind locked airport fences; the arrest of an innocent glider pilot who flew near a nuclear power plant, in violation of no law; and the tense situation in which well known aviators John and Martha King were ordered out of their airplane at gunpoint because of a poorly updated government database of stolen aircraft.

Pilots in the U.S. still have much more freedom than almost anywhere else in the world, but TFRs, special zones and government officials who think a Cessna 150 is as much of a threat as a Boeing full of fuel have erected yet another obstacle to flying, one that undoubtedly keeps some pilots from flying because it’s just too much of a hassle now.

EAA’s Young Eagle Recruits the Next Generation

The Experimental Aircraft Association (EAA) has long inspired future pilots. Since the EAA’s Young Eagles flight experience program was launched in 1992, volunteers have flown more than 1.7 million young people in more than 90 countries. Now Young Eagles follows up the first flight with programs aimed at encouraging further participation in aviation. After the first flight, participants receive free EAA student membership and free access to Sporty’s learn-to-fly course, which qualifies the Young Eagle for a free first-flight lesson. EAA also facilitates flights for adults, with the Eagle Flights program.
Rising costs limit interest, stifle growth
by Matt Thurber

Demand for piston-powered aircraft has shifted since 1978, when the market was flooded with relatively inexpensive airplanes, many of which are still available in the used marketplace. The problem with the piston market appears to be one of waning demand, which is reflected not only in the pilot population and the shipment numbers for new piston airplanes, but also in the used airplane market.

Prices of used piston-powered airplanes have dropped significantly. According to Vref Publishing’s Light Single Index, prices for a basket of popular single-engine piston-powered airplanes climbed from an average of about $50,000 in 1994 (the farthest back Vref’s data is available) to about $64,000 in early 2001. Since then, the average has dropped below the 1994 number, to nearly $46,000.

The Aircraft Bluebook-Price Digest published a report about the used aircraft market in late 2010 that showed a peak in piston-single prices in 2001 (based on a basket of 10 airplanes), followed by a rapid drop through 2009 and a leveling off into 2010. Looking at some airplanes in more detail, a Cessna 172N that sold for $31,850 new in 1978 ($112,000 in today’s dollars, adjusted for inflation) is now worth $37,000, according to Vref. But a new 172S today retails for $289,500, in real dollars about two-and-a-half times what a new 172 cost in 1978.

Granted, today’s new 172 has a more powerful fuel-injected engine, a Garmin G1000 glass cockpit and other improvements. A Beech Bonanza A36 that sold new for $105,700 in 1978 now sells new for $765,900 (again, with much more modern G1000 avionics, a more powerful engine and other features). But that is still more than twice the 1978 cost in real, inflation-adjusted dollars.

Looking at fuel prices, it’s interesting to note that at an expensive airport, Denver International, today’s avgas prices are pretty much the same as they were in 1978 after inflation is taken into account. But at a low-cost airport, Plymouth Municipal in Massachusetts, today’s avgas costs nearly three times what it cost in 1978.

The rental rate for a typical four-seat Piper Warrior in the Boston South Shore area, however, is not too different from 1978 prices, despite the threefold rise in avgas cost. These numbers show that new airplane prices have far outpaced inflation, and the low number of shipments of new airplanes underscores the fact that they are simply very, very expensive. Fortunately for buyers that they are simply very, very expensive.

Avgas Deliveries. Flying in a Slump

Activity is up at some airports, according to GAMA numbers, but overall GA flying has dropped as shown by avgas delivery data. Piston-powered general aviation flying has dropped significantly since the early 1980s, a conclusion supported by a look at the deliveries of avgas, published by the U.S. Energy Information Administration. In 1981 more than 11 million barrels of avgas were shipped. In 2011 that number had dropped by more than half, to about 5.3 million barrels.

In the chart, we plotted avgas deliveries against the FAA’s annual estimate of hours flown by piston-powered aircraft. From about 35 million hours in 1981, GA fleet activity has declined by about 50 percent, according to the FAA.

Although it’s hard to know whether the FAA’s estimates of hours flown are accurate, it is interesting to see that the estimates have dropped by roughly the same proportion as avgas deliveries. Flying activity in the U.S. piston market is definitely down significantly from what it was at the peak of the GA market.

The State of General Aviation

Making Flying Social

An almost universal theme during interviews for this report was the need to promote the social aspects of GA, as a means of welcoming new participants and keeping pilots active.

“No reason people keep coming back is we have a lot of social activities,” said Rob Mark, a flight instructor at Leading Edge Flying Club at Chicago Executive Airport (also a writer for AIN and proprietor of the Jethwine blog). The club holds regular fly-outs to local airport restaurants, monthly breakfast meetings and welcome events at the clubhouse.

Jeff Simon launched SocialFlight last July, to encourage pilots to participate more in aviation by giving them a reason to fly other than the so-called $100 hamburger.

SocialFlight is a website and mobile app that displays information about aviation activities. The free app is easy to use and includes a weekly email notice of upcoming events.

One of GA’s problems, Simon asserts, is that most of the marketing is to people who already participate. “We don’t do much to bring people in,” he said. “The other problem is that pilots who might be motivated to fly to a local fly-in might not hear about it, and SocialFlight makes sure it comes to their attention. “If you give them a destination, it could make a big difference.”

SocialFlight targets non-fliers and pilots because a lot of people are interested in aviation and might be encouraged to participate through social activities.

Cable Airport Community Outreach

If there is a prototypical airport that embraces the social flying mandate, it is family-owned Cable Airport in southern California.

The airport’s hangars and tie-downs are full, and every month pilots and the public are invited to a fly-in fly-out idea. Facilities are available to local nonprofit organizations, which leaves members of the community with a positive view of the airport. Even though Cable is privately owned, it receives public funds because it is a reliever for nearby Ontario Airport.

“The secret sauce is I own all the property,” said president Bob Cable. “The airport is healthy. We have to be because there’s no board of supervisors or a city council that we can see to say we need more money. We’ve got to make it work. We do what we can to give back to the community. It’s a lot more than just a bunch of guys flying around.”

OpenAirplane Concept

The OpenAirplane concept was designed to overcome an obstacle that keeps pilots from flying, the need to obtain a checkout flight at every company where they plan to rent airplanes.

OpenAirplane participant pilots undergo a “Universal Pilot Checkout,” that qualifies them in that model of airplane at any participating FBO. OpenAirplane has the support of the Aviation Insurance Association, the Cessna Pilot Center network and the National Association of Radio Control Aircraft and the Civil Air Patrol.

FAA Seeks Faster Part 23 Certifications

The FAA, aided by the industry it regulates, is in the throes of rewriting Part 23 to speed up and reduce the costs of the certification process for everything from single-engine piston aircraft to small jets. The Part 23 Aviation Rulemaking Committee (ARC) was formed more than a year ago and consists of about 120 representatives of industry and government from around the world.

The general aviation industry has been calling for a better approach to getting aircraft, avionics and powerplants approved by the FAA and released to the market. Greg Bowles, the General Aviation Manufacturers Association’s director of engineering and manufacturing, is co-chairman of the ARC, which is keen on cutting certification costs in half. The ARC is also looking at creating a new standards board that would board on government and industry experts from around the world to develop standards for these new technologies.

The panel believes this would facilitate a quicker approvals process.

On another front, Congress requested in last year’s FAA reauthorization that the agency review the entire certification process. The goal, he said, is “twice the safety at half the cost. We’ve had strong support and commitments by other regulators to adopt the same rulemaking. This will be a better environment for general aviation. We feel good about that.”

Matt Thurber

Continues on page 28
Association of Flight Instructors. More than 5,300 pilots are on the OpenAirplane update list and more than 50 aircraft operators have expressed interest, according to co-founder Rod Rakic. “We’re now pedaling as fast as we can to launch the service here in the first quarter,” he told AIN. “We’re stoked to have been getting alignment from the insurance industry, the pilot population and the rental operators to launch the service and see if together we can make private aviation more valuable, safer and maybe even more fun for everyone. I think the future of GA could be amazing.”

Intuitive Avionics

The future of GA will be much improved if avionics are made more intuitive, according to Stéphane Fymat, CEO of avionics developer Smartplane. Fymat’s company is designing an intuitive avionics user interface that aims to make flying much safer and more attractive to new entrants. “We’re trying to make flying an airplane, metaphorically speaking, as simple as a car is to drive,” he explained. “From a design point of view, you want the reaction that, when someone sits in front of the avionics, they’re inspired with confidence.” Smartplane plans to prove its approach in the LSA segment, then target certified aircraft and the UAV market.

iPad and Android Apps Abound

One area where the normally glacial pace of development is absent is in the applications that creative developers offer for tablet computers, both Apple iPad and Android devices. These platforms have upended the traditional electronic flight bag market and have enjoyed wide adoption by pilots. This is an excellent example of how technology has raced ahead of regulators, who are struggling to accommodate pilots who want to use these devices in cockpits, and also how these apps are inspiring new ways for pilots to incorporate safety features that, while advisory, are far more costly and take much more time to develop in certified avionics.

CubCrafters Delivers

CubCrafters, a relatively new manufacturer, delivered 58 airplanes last year, mostly the LSA Sport Cub and Carbon Cub, although the company also makes the certified Top Cub. While the overall GA market is shrinking, said general manager Randy Lervold, “the Carbon Cub has bucked the trend in every regard.” Most buyers are recreational fliers, he said, although the certified Top Cub is flying with government agencies and private owners. Lervold shares the widespread concerns about the health of GA. “We have to dedicate time to figure out how to help the industry grow. We don’t have the magic bullet. It’s a problem. However, we’ve managed to successfully carve out a little niche and focus on that. GA is not going to go away.”

Sporty’s Pilot Shop Looks Ahead

John Zimmerman, vice president of Sporty’s Pilot Shop, which also operates a flight school, has an optimistic view of GA. The flight school had its busiest year ever last year, and in those 12 months not a single student pilot quit after soloing, which is an extraordinary retention rate, much higher than the GA average of 15 percent. Sporty’s keeps student pilots interested by celebrating the first solo, then encouraging them to obtain a recreational or sport pilot certificate. This first certificate gives the new pilots early confidence and the ability to fly passengers, and when it comes time for the private certificate checkride, students aren’t as intimidated, having already experienced a checkride.

As busy as the flight school is, Zimmerman has noticed a shift in the type of GA flying, with more light airplane pilots flying recreationally rather than for business travel. “We get so caught up in the [is GA] up or down question. The real question is, is [GA] changing? You have to be naïve to think we don’t face some serious challenges. Our biggest issue is more of a cultural issue. The way people want to use products like aviation has changed. We’re in a transition period and aviation is just part of that. If we get through it we’ll be stronger on the other end.” For more optimism, see Zimmerman’s blog on Air Facts (airfactsjournal.com), “7 Good Things About General Aviation.” Zimmerman’s bottom line? “Let’s share the passion, not the pessimism.”