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Aviation Security Gets Down to Business

By James K. Coyne, President

The dramatic clampdown on air travel security procedures this past summer, prompted by the discovery of a sophisticated terrorist plot to detonate liquid explosives in several transatlantic airliners, has once again forced air transportation providers and service companies to review their security procedures. Many of us are asking ourselves: "Am I meeting all the latest security regulations?" But maybe the real questions to ask are: "How is aviation security part of the optimum product or service my customers want from me?" and "Is security just one of my costs or has it now become an essential part of the process that produces my revenue and profit?"

To many of us, aviation security is an example of good intentions run amok. After 9/11 it was understandable that aviation became the focus of new regulations, but five years later it's hard to understand why aviation gets all the attention and other transportation modes have almost been ignored. In any case, most aviation security professionals feel confident that with hardened cockpit doors and airline passengers who now understand what terrorism means, the chance of another 9/11-type hijacking is almost zero. But though we are all loyal soldiers in the battle against militant extremists, the continued emphasis on aviation security reminds me of the old saying about how generals are always fighting the last war and miss the unexamined threats or untried tactics in other arenas. Thus, the latest official assessment of how frightened airline passengers should be has been moved up another notch. It's now 9/11/06, and we can't even bring a bottle of water on a commercial plane! Is this the last straw—or are the skies forever changed?

To answer this question you probably need to talk to a pollster, a politician, and a philosopher. The pollster will tell you that the public is afraid and generally accepts with little complaint whatever measures government imposes to reduce the risk of a terrorist attack. The politician will tell you that no one gets elected anymore with the line, "We have nothing to fear but fear itself." American politicians these days wave a banner that says, "Better safe than sorry," and even conservatives can be drunken sailors when it comes to security spending. The

philosopher will try to clarify the whole mess by recalling the research of Abraham Maslow and his famous 1943 paper, *A Theory of Human Motivation*, where he explained how people seek to satisfy successively "higher needs" in a hierarchy.

Once they are "satisfied" with their physiological needs, they move up to a higher level where their greatest "needs" are physical safety, security, and freedom from threats. People can't help themselves, Maslow proclaimed, because their "need" for security is as real and commanding as their "need" for bread and water.

So where does that leave us? Simply put, security is here to stay, and it will expand its scope and presence throughout all elements of aviation for decades to come. This is, by far, the greatest change in aviation in the past decade. Forget about new planes, engines, FBO terminals, fractional programs, low-cost carriers, and even higher gas prices. Nothing is reshaping the nature of aviation products, services, and demand more than aviation security—because it has fundamentally changed what people think about and what they want when they fly.

Of course, not all people are the same. They vary economically, socially, geographically, culturally, and in many other ways, but when it comes to air transportation they all are concerned with the same four fundamentals: price, safety, speed, and convenience/comfort. It is here that the impact of security is so obvious because it directly affects each of these primary factors. Security costs make travel more expensive. Security procedures raise public consciousness about safety and frighten the fearful. Security protocols not only increase travel time portal-to-portal, but they heighten the risk of flight cancellation, adding an uncertainty factor that makes flight scheduling more problematic. And perhaps most dramatically, security requirements make air travel, at least on scheduled airlines, far



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President's Message

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less convenient and comfortable.


No matter what aviation product or service you sell, the rules are now changed because your particular offering has become more or less attractive (hopefully more) to customers whose normal air transportation choices have been transformed by the new security regime. Whether you handle cargo, fuel business jets, load bags, manage aircraft, offer on-demand charter, clean aircraft, train pilots, sell support equipment, install interiors, overhaul engines, or operate a fleet of fractional aircraft, you are now selling something that raises (or answers) questions about aviation security and has costs directly associated with your "management" of these questions. Whether you ever thought about it before or not, you're in the aviation security business now—big-time!

So you've found yourself another business to run. Just what you need. "Thanks a lot," I hear from some of my more sarcastic friends. But for many of you, this may be the most important (and certainly the most serious) business opportunity to come your way in a long time. Just as we've had to gradually realize that security is a big part

of our business, so are our customers gradually appreciating that this is something they have (and should want) to pay for. And if there is any lesson to be learned from 9/11, it is that security costs shouldn't be absorbed, without compensation, by a service provider. Prior to 9/11, the airlines handled passenger screening that way and ended up driving screener standards to the "cheapest" level they could get. Good security, like anything else, costs good money.

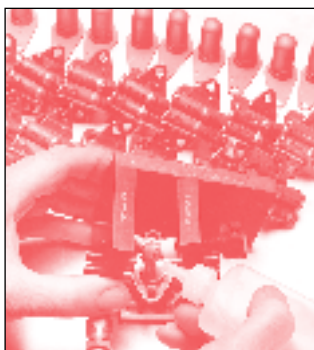
The way you manage and sell the security part of your product or service, of course, depends on what your customers want and need. Maslow teaches us that the higher up the economic ladder your customer is, the greater his "need" for safety and security and therefore the greater his interest in how your product/service meets his security requirements—and the greater his willingness to pay for it. A charter customer, for example, is aware of the risks of flying in a large airliner with hundreds of anonymous passengers, but he should also know about what you do to protect his security when he's flying in your aircraft. Your ground security, background check, and screening procedures give him even more reasons to value private aviation, along with the more obvious time-saving, hassle-free, schedule-reliability benefits of on-demand charter.

There is also an opportunity for NATA members, because of their familiarity with aviation operations in all environments, to identify important new security products or services. Cargo handlers, for example, can far more easily and effectively implement meaningful security procedures for cargo loaded onto commercial aircraft than could a disparate group of shippers or carriers. Domestic flight schools are far more capable than an army of customs and immigration bureaucrats to create security procedures that insure that only serious (and safe) students graduate from their programs. FBOs are often the only ones with employees at a small airport 24 hours a day. Airport operators should turn to them to fulfill (and be paid for) the important security functions they can provide.

Meeting the security challenges we face has changed aviation forever, and the aviation service businesses that change to make security a part of their business will not only make our skies, airports, and cities safer, they will also find new customers, new revenues, new profits, and new paths for growth and expansion. Our customers, undeniably, have an enduring "need" for security. So, too, do we have a "need" to meet that need, giving our customers much more than mere security—giving them, in the final analysis, the freedom to live and travel without fear. To me, that's priceless. 

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Five Years Later: For Better or For Worse?

By Eric R. Byer, Vice President, Government and Industry Affairs

As I prepared to write this column, I realized that we would soon be observing the fifth anniversary of the September 11 terrorist attacks. So much has happened with aviation security since that horrific day that I decided I would briefly review the major changes and include a short scorecard on the success or failure of each.

- The Federal Aviation Administration (FAA), which was responsible for overseeing aviation security prior to and shortly after the attacks, loses jurisdiction of this important function to the newly created Transportation Security Administration (TSA).

This was an action for the better. The TSA has become one of the more valuable and effective agencies within the federal government. You can thank constant public scrutiny and some truly outstanding personnel for this. They don't always get it right (let's face it, their learning curve has been pretty steep) and we don't always agree with their actions, but they have at all times and as much as possible tried to involve NATA in the process with straightforward and honest dialogue.

- Private screening companies bear the brunt of criticism for failing to discover the weapons and ascertain the identities of the perpetrators of the September 11 terrorist attacks. They are made the scapegoat and are put out of business, with the exception of the retention of private screening services at five pilot-program airports. After several reviews, it has been determined that there is no measurable difference in performance between the government and the private sector on screening. We now have tens of thousands of trained TSA officials at our busiest airports conducting these screening functions.

This was for the worse. The screeners were not the problem. It was instead our government and the standards that it set. Private screening companies, many of them small businesses, paid the price for our government's poorly developed standards

and oversight.

- The White House proposes, and Congress approves, the merger of key domestic security agencies into the new Department of Homeland Security (DHS). The TSA, Customs, Secret Service, and INS are included under the DHS umbrella.



This move was for the better, though none of these agencies are still happy with the change. Unfortunately, they far too often only begrudgingly work together. Only if these agencies truly embrace their combined existence will we achieve fulfillment of this promising and necessary initiative.

- Aviation cargo security is addressed in the form of a final rule issued earlier this summer.

Does it really address cargo security, or is the rule an answer to political rancor among our friends on Capitol Hill and in the media? Only time will tell about the success of this rule. The immediate question remains: When will we stop letting politics and propaganda rule the day when it comes to rulemaking content? This action was definitely a change for the worse.

- The TSA mandates security programs for on-demand operators using aircraft weighing more than 12,500 pounds, and while there are some significant initial hurdles, the air charter industry responds well to the program.

The benefit for the industry has been the acquired ability to assure the public that our aircraft are secure, that passengers are being vetted, and that all reasonable measures are being taken to ensure security. This was achieved with a program that, thus far, has been at least manageable for industry. This was a change for the better.

- The TSA establishes the Alien Flight Training/Citizenship Validation Rule. This rule applies to

flight training for recreational pilot, sport pilot, private pilot, instrument rating, or multi-engine rating training. U.S. citizens must prove citizenship through a birth certificate, passport, or other official document. Flight training centers wishing to instruct alien students must register with the TSA, students must apply with the TSA before beginning training, and flight schools must keep detailed records of alien flight training. Initially, the rule reads that *every* pilot, even a U.S. citizen seeking a flight review or other recurrent training, and *every* flight school would be subject to the alien student requirements. The rule also requires all flight instructors and schools to register with their local FSDO, a task the under-resourced, “overworked” FAA was not prepared for—or was even aware existed! In the end, the debacle is sorted out: U.S. citizens taking some form of “substantial” training have to prove citizenship, and U.S. citizens taking recurrent training do not. Only flight training centers instructing alien students must be registered with TSA, and only alien students must go through the application process.

This action started as a change for the worse, then became one for the better (although far from perfect). While I support documentation of alien flight students, the process and recordkeeping requirements are so cumbersome that many of our member flight training centers just choose not to instruct foreign students, the vast majority of whom are law-abiding flight candidates with great potential.

A Remarkably Resilient Industry

Since that horrific day, much has been done to improve security within our nation’s air transportation system—some good and a lot bad. Truly remarkable, after more than five years, is the resilience of the aviation industry. Aviation businesses take whatever government throws their way and manage to make it work, make ends meet, and grow their business to boot.

But equally remarkable is that politics continues to play far too large a role in the decision-making of how to address security needs, while the people with the expertise in foiling plots, including the one in Great Britain, are simply not having enough say. I know there is frustration from many outstanding public servants at DHS and within our government’s intelligence infrastructure who are required to be responsive to political pressure from the White House and Capitol Hill to address the ter-

rorist act that has already taken place rather than spending the time on proactive steps to address likely potential threats. The fact is, though, the politicians should not be making the decisions. I am hopeful that the success in Great Britain indicates a turn finally toward being proactive rather than fulfilling silly political requests that are pure window dressing.

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The VLJ's Future in Charter:

The \$1.4 Million Question

By Lindsey McFarren

When the concept of the very light jet (VLJ) emerged several years ago, aviation enthusiasts considered the VLJ to be the next owner-operator "pocket rocket" aircraft. The fulfillment of general aviation pilots' dreams of owning and flying their own affordable jets at speeds comparable to much larger jets while gaining access to exotic locations too small for bigger aircraft was on the horizon. But some on-demand air charter companies, including Delray Beach, Fla.-based DayJet Corporation and others, see the VLJ not as a luxury toy for speed-hungry private pilots, but as an opportunity to create an entirely new market of on-demand air charter customers.

Can the VLJ be a catalyst for growing the air charter industry? Will VLJs usher in a new era of "per-seat, on-demand" FAR 135 air transport options? DayJet thinks so. With the right mix of aircraft, service, location, and customers, the company has developed an intricate and rather unique model for its VLJ operation.

The DayJet Model

DayJet believes the recently certificated Eclipse 500 is the right aircraft for the emerging VLJ on-demand air charter market. The company will receive 300 Eclipse 500 aircraft in its first two years of operations. The aircraft is amazingly affordable, with a price tag of around \$1.4 million, and has a maximum speed of 370 knots, a range of 1125 nautical

miles, and a service ceiling of 41,000 feet. Eclipse Aviation boasts about the aircraft's short landing distance that makes more than 10,000 U.S. airports possible destinations for the Eclipse 500. Eclipse Aviation chose Pratt and Whitney PW 610F engines, remarkably quiet turbofans that exceed existing Stage 3 noise requirements and will meet upcoming Stage 4 requirements. The engines are managed by dual-channel full authority digital engine control (FADEC), which leads to greater fuel efficiency and reduced pilot workload. The aircraft is also outfitted with Avio Total Aircraft Integration, a full-service systems management device that simplifies crew tasks and leads to reliability and safety through efficient redundancy.

DayJet has decided to use the Eclipse 500 in a unique per-seat, on-demand operation. The company will sell seats on the plane much as airlines do but will not operate on a schedule, which is prohibited by DayJet's Part 135 certificate. DayJet Vice President of Community and Government Affairs Traver Gruen-Kennedy said the company considered using VLJs in a traditional air charter model, whereby a customer charters an aircraft and crew per flight under DayJet's charter division brand Wingedfoot Services. But "our per-seat, on-demand business model gives our customer a simple and easy way to book a seat to meet their personal scheduling needs, while our advanced system for

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The VLJ's Future in Charter

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real-time operations (ASTRO) enables us to quickly determine the cost of production for that seat and efficiently manage our resources to create an itinerary and flight plan," he said.

As the first regional VLJ operator, DayJet anticipates it can better manage fuel costs and maintenance expense by creating a permanent presence in secondary markets, unlike its global charter operation. "By focusing on meeting business travelers' needs in the U.S. southeastern region, we will achieve our goal of first-class customer service at a price point not achievable if we were to use a

faster than driving.

The focus group results led DayJet to establish a regional model including pre-determined airports served by DayJet, known as DayPorts. The typical DayPort has no or limited access by commercial airlines and is a short, few-hour flight from the DayPort of departure. This regional model has targeted business travelers who now waste several hours of driving time commuting from one sales call or meeting to another or who fly commercial airlines through the inefficient hub-and-spoke system. The company announced this spring that it would

service primarily the Southeast United States and later announced establishment of DayPorts in Boca Raton, Gainesville, Lakeland, Pensacola, and Tallahassee, Fla.

DayJet's regional model consists of three new terms for the lingo-loving aviation community: DayStop,

DayPort, and DayBase. DayStops meet the company's minimum operating requirements, including a hard surface runway of 3,500 feet or longer, secure perimeter, runway lighting, and visible signage from interstate to FBO terminal. DayStops, as the outposts of the DayJet frontier, will provide the most basic services. DayPorts upgrade the service of a DayStop to include paved ramp space, a customer welcome desk including many customer service options, Jet A fuel, oxygen and nitrogen services, and FBO personnel for towing, fueling, and minor maintenance. DayBases will each be headquarters for several pilots and aircraft, with both crew and

machine returning "home" each night. In addition to the amenities of a DayPort, DayBases will have crash, fire, and rescue service, significant hangar space, and more sophisticated navigation devices.

Although DayJet's model includes customer service representatives at each DayPort, the transportation itself is meant to bridge the gap between the air chartering elite and the airline-flying public. "DayJet will offer utilitarian regional travel, with no catering, no in-flight services, and no frills," Gruen-Kennedy said.

DayJet has opted to crew each flight of the single-pilot certified Eclipse 500 with two pilots, based partially on the information gleaned from the focus groups. "The two-man crew leads to safety and redundancy that we think makes a lot of sense, even though the aircraft is certificated for single-pilot operations," Gruen-Kennedy said. "The Eclipse 500 is a stable, reliable aircraft with excellent avionics that greatly simplify single-pilot operations, but our customer focus groups have indicated a two-man crew means more confidence for passengers."

DayJet is also committed to high-level, airline-like training, contracting with Eclipse and United Airlines for their training program. "We are getting strong interest from highly qualified pilots coming out of airlines that are downsizing and those that have taken early retirement packages but like the aircraft, our training, and customer care approach," Gruen-Kennedy added.

DayJet, although the most visible operator in the coming VLJ world, is not the only on-demand air charter operator looking to the VLJ to develop a new air charter customer market. POGO, run by former American Airlines Chief Executive Officer Robert Cran-

As the first regional VLJ operator, DayJet anticipates it can better manage fuel costs and maintenance expense by creating a permanent presence in secondary markets....

traditional charter approach."

DayJet's commitment to customer service began with the company studying 20 focus groups. Safety, security, and customer service continuously ranked as the focus groups' top priorities. In focus groups involving business travelers, participants said they would pay a premium over non-restricted full coach airfares to avoid overnight costs and the inconvenience of large airports and layovers. Participants told DayJet that most of their regional trips are driven, but that driving is inefficient use of time and for these kinds of trips conventional 121 air service with its security and check-in lines is often no

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The VLJ's Future in Charter

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dall, plans to operate more than 50 VLJs within its first two years of business. However, POGO will sell flights in a more traditional manner: by the flight, not the seat. Price is expected to range from \$1 to \$6 per mile. Linear Air in Massachusetts intends to add 30 Eclipse 500s to its existing Cessna Caravan fleet. The company's existing fleet conducts some regularly scheduled flights to Nantucket and Martha's Vineyard and also on-demand air charter flights. The Eclipse 500s already on order will continue Linear's scheduled and traditional air charter hybrid model.

air charter industry as a whole. "These aircraft have received considerable media coverage as they developed, and an accident involving a chartered VLJ could negatively impact all of the charter industry," he said.

Milian's concerns are rooted in pilot qualifications and training, the aircrafts' excellent performance capabilities, and the environment in which VLJs will be operated. Pilots with substantial flight hours typically want to fly larger aircraft, not "downgrade" from a larger jet to a pocket rocket, although very well-equipped VLJ, so most VLJ

pilots are likely to be recent upgrades from turboprop or twin-engine piston aircraft. Some of these pilots will have little experience with high altitude operations and RVSM air-space.

Milian also worries about where these aircraft fit in the scheme of America's airports.

"The airports likely to be used by VLJ aircraft can have runways as short as 3,000 to 4,000 feet," he said. "Primarily single-engine and multi-engine piston aircraft use these airports today. Most of the operations are conducted VFR without the benefits of a control tower. How will these small jets fit with the piston aircraft already using those airports? More importantly, how will these aircraft operate in congested terminal areas if flown single pilot? At issue is that, while these aircraft have very sophisticated electronic equipment, someone needs to be monitoring the cockpit while also watching outside the aircraft for traffic and what not."

Of less concern to Milian is the fear that VLJs will decrease his existing air charter customer pool. He's fairly confident the typical VLJ charter customer of the future is today's airline customer or possibly a small turbo-prop charter customer. His concern is not the marketability of the VLJs but rather the operation of these aircraft in a very complex and ever-changing operating environment by inexperienced pilots.

That said, Milian wouldn't be completely opposed to adding a VLJ aircraft to his existing fleet in the future. "If an owner of a VLJ asked my company to manage the aircraft and use it for charter operations, I would consider it," he said. "In doing so, I would ensure that a properly trained and experienced two-pilot crew flies the aircraft." Milian questions, however, whether the market could support the additional crew and training costs associated with a two-pilot crew.

Some traditional air charter operators are even less optimistic, and their skepticism lies not just in the aircraft itself, but also in the per-seat, on-demand model being considered. "The idea that random people, unknown to each other, will have the same departure and arrival city at the exact same time is rather far-fetched," said one air charter operator. "The result will be en-route stops to pick up or drop off other passengers, greatly reducing the time-savings benefit of the per-seat, on-demand model."

The VLJ's cabin size and lack of amenities (read: lavatory) also have many traditional air charter operators shying away. The price point and operating costs of VLJs will mean the typical VLJ charter will compete with turboprop aircraft. Consider a King Air 200 with three passengers—a reasonably comfortable ride, particularly

"These airplanes will certainly find a niche, but it will be regional use and they will not likely be widely used in traditional charter models."

—Dennis Keith

But with all the focus groups conducted, sophisticated aircraft on order, and planning completed, can DayJet and other similar charter companies really change the face of the air charter industry with the VLJ? Some traditional air charter operators are skeptical.

The Skeptics

Traditional on-demand air charter operators vary in their views on the VLJ from guarded optimism to all-out skepticism.

Frank Milian, president and chief operating officer of Jet-Source in Carlsbad, Calif., worries primarily about the effect a VLJ accident could have on the

for the short regional hauls VLJs are likely to fly. Now put the same three passengers in the “cozy” cabin of the typical VLJ. “So here’s the million dollar question: What will the consumer accept? Will a customer sacrifice cabin space for shorter flight time in a VLJ?” Keith wondered.


Most of the VLJs on the drawing board or already test flying today do not offer a lavatory or have a “friends and family” lavatory, meaning that if someone uses the lavatory, everyone on the plane had better be a family member or will instantly become a very close friend. Historically, aircraft without lavatories don’t sell well in the air charter market. The short regional hauls the VLJ is expected to serve could alleviate the need for a lavatory, but many operators, and some customers, are not go-

ing to be easily sold on an aircraft without that critical feature.

Although many VLJ models focus on business travel, the existing air charter industry relies not only on corporate business trips, but also on longer leisure trips—skiing, boating, hunting, and beach-bumming. Consider a chartered family leisure flight departing New Jersey bound for Martha’s Vineyard to visit Grandma. The VLJ’s competitor, the typical chartered turboprop, can easily handle Mom, Dad, two kids, the family dog, and all the necessary baggage for a weekend stay. The same family chartering a VLJ, particularly one with a two-person crew policy, would have to leave Fido at a kennel and keep baggage to an absolute minimum. Definitely no fishing poles or rollerblades on this flight.

The skeptics wonder, can a VLJ operator base its future almost entirely on business travel and still succeed?

“These airplanes will certainly find a niche, but it will be regional use and they will not likely be widely used in traditional charter models,” said Dennis Keith, president of Jet Solutions in Dallas, Tex.

The answer is unknown, but DayJet and others have placed big stakes on the even bigger question: Will VLJs find a new customer base in the competitive air charter market? Most in the aviation industry have adopted a wait-and-see mentality. “Without a crystal ball, it’s simply impossible to know how the VLJ will change our industry,” Keith said. 

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Opportunity Finder

Like many entrepreneurs, charter operator Michael Grossmann has adapted to the times—and they have been a-changin’ hourly, it often seems—to find his next great business opportunity.

The floor of the Grand Caravan was painted yesterday, and you can tell. The new paint smell hangs in the air, and the floor doesn’t have a scuffmark on it, yet. Window guards protecting otherwise pristine Plexiglas are yanked, seats installed, and voila! What yesterday was a freighter carrying boxes is today a five-passenger pipeline patrol aircraft, ready for a two-day mission.

“Hey, whatever works,” Grossmann said, smiling beneath his signature handlebar mustache.

In a way, that’s the story of Grossmann’s life. From his base at the Akron-Canton Regional Air-

port in Ohio, Grossmann’s Castle Air operates a mixed fleet of six Caravans, two jets, and several other dedicated passenger charter aircraft, a busy repair station, as well as the newest FBO on the field, seizing opportunities wherever they can be found. It’s that flexibility and versatility that has been a hallmark of his business career—his constant willingness to turn on a dime.

“Back in 1978, I was a firefighter and started flying because *she* didn’t want to move to Kansas City to be closer to my family,” he said, nudging his smiling wife and business partner, Hilda. “So I made a deal with her. We’d stay in Youngstown, Pennsylvania, with her family, but I’d start flying lessons. I mean, really, it was that simple.”

“I spent the next two years getting my ratings—commercial, multi, instrument, in two years. Then, I started flying for a charter

company in Grove City, building time,” Grossmann said.

Air Ambulance Broker to Cargo Carrier

Several years later, in 1983, he was involved in a car accident that landed him in bed for six weeks. “I had a lot of time to think, and I decided that I could run a charter business better than the company I was working for,” he said. “So, the following year, I started my own air ambulance broker business. Then, we began managing a Navajo, hired pilots, and we were up and running as a charter provider. It’s been quite a ride ever since.”

Castle Air grew from one to five Navajos, to today’s six Caravans, over a decade and a half. “1999 was actually the year of our business life,” Grossmann reflected. “The economy was great. Every

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By David W. Almy





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Castle Air

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cargo carrier was going nuts. We had two Caravans at the time, and each was flying 250 hours every month. Nobody even asked you how much. It was always whenever you have a plane, put me down for it. I mean, that's unheard of. It's one thing for passengers to reserve a plane...but for cargo—it was *that* busy. And you could name your price because it didn't matter. Nobody even ever talked

about price," he said.

September 11, 2001, ended that boom. "Business started to slow in 2000," Grossmann recalled. "We saw a lot of competitors go out of business. When the automotive cargo market dried up, that same year, I took delivery of two more Caravans. So here we are at the end of 2000 with four Caravans in a slowing market. And 9/11 really put the brakes on."

Fixing Airliners

"But you can't afford to just sit there and wait for business," he continued. "You have to be proactive and go out and look for it. So I started going after the airline maintenance business. We had dabbled in it but never concentrated on it."

During 2000 and 2001, Grossmann built that up to be 30 percent of Castle Air's business. "It took the place of all the freight business we lost as that market softened. Airliners were breaking everywhere," he said with a grin. "We'd move both parts and/or mechanics at night and fix an AOG airplane because most of the airplanes are parked at night. Prior to 9/11, we were doing two or three airplanes a night. After 9/11, that stopped. The airlines couldn't spend any money. They cut routes and everything else they were doing, so they had spare airplanes to use instead of fixing broken ones. Their flight activity didn't come back until this year."

The airline's also changed their approach. "After 9/11, if the airlines had ten passengers on an

airplane and they had mechanical, what did they do? They'd cancel the flight," he said. "Before 9/11, that flight would go because they were full."

"I was in business with eight airlines. That's part of understanding what's going on in your industry. I went to the airlines. I visited every one we'd done business with and found out what they needed. I just found out how the system works," Grossmann said. "Listen, today, if an airplane leaves 30 minutes late in the morning, it will be 30 minutes late all day long because the airlines are running such a tight schedule. And if they run 30 minutes late, they can lose up to 10 percent of their passengers that day. 10 percent of their passengers! And if the plane doesn't get out of the gate at all, they can lose \$200,000-400,000 a day on a 737. So \$2,000 for a maintenance charter, in the big picture, that's pretty cheap."

Pricey Fuel

Of course, fuel costs have affected Castle Air just like every other operator, and it's one cost that Grossmann often has had to absorb himself. "Our fuel expenses have doubled in the last year," he said. "On a Caravan, let's say fuel went up 50 cents. Burning 60 gallons an hour, that's \$30. I can't get \$30 more per hour for the airplane. The on-demand freight business is very competitive. There are Internet sites where you bid against other freight carriers. Some of them—and I've seen this time and time again—don't know how much their airplanes cost an hour to operate. If they did, they wouldn't send their airplanes out for less than it actually cost to operate."

"Those operators will sidestep engine reserves in order to make their numbers work. If you take all the reserve money out of there, you can operate 'cheap' but sooner or later it's going to



"You never, *never* show the negative side. You're always positive, regardless of what's going on. Negative doesn't accomplish anything. So I try to stay positive all the time. If your point of view is positive, your employees will be positive. And if your employees are positive, then your business will be positive."

bite you because you have to do engine overhauls at some point. And they'll be out of business," he concluded.

Grossmann calculates that 70 percent of his business is freight, 25 percent passenger charter, and 5 percent FBO. To achieve those numbers, Grossmann spends less than three hours a day at his desk, preferring to be in a cockpit or a hangar. "But they only call me when they run out of pilots and I can fly," he said.

Online Brokers Are the Market

In the Internet age, Castle Air doesn't have a dedicated sales staff. It instead secures the lion's share of its business via online contacts. "The vast majority of our business on the passenger side and the freight side comes from brokers," Grossmann said. "So the brokers are the ones who spend the money marketing, going after the customers. I'm an airplane operator. That's what I've done for years."

"We'll still quote a customer when they call us directly," he said. "But the good news is that if they're calling you, you have a much better chance of getting the flight than if we're quoting it on a bid board. Everything is going Internet, so you constantly have to watch the Internet boards. That's why we have somebody in the office 24-hours a day. You have to watch the bids come up so we can bid on them. Activeaero.com is probably the biggest website, and then probably behind that is AirNow.com. They have a big bidding board."

In the freight business, 80 percent of Grossmann's business comes via the Internet, and price rules.

"It's not service; it's the bottom line. It's just about dollars," Grossmann explained. "A friend told me he was doing a lot of brokering, too, and he would ask

cargo customers 'What do you want, price or service?' Because if you want price, I will not guarantee on-time delivery. If you want on-time delivery, then I have to go with a little more expensive operator (because the cheap guys are unreliable) and I'll guarantee the times. But the majority of the time, the customer will say, 'Give me the cheapest.'"

"Conversely, in passenger world, it's all about service," he said. "It's about doing the little things, like the cookies in the lobby and little touches like that."

Expensive Fuel and People

The two biggest financial issues for Castle Air last year were that fuel and employee costs went through the roof. "We almost doubled our gross sales, but our costs more than doubled," Grossmann said. "Managing growth is its own challenge, requiring adjustments. We're not as lean as we could've been, but we're getting better."

"As fuel prices started going up, on the passenger side, we added a fuel surcharge, so we really didn't lose money on the passenger end," he continued. "But on the freight end I was not able to add fuel surcharges as easily as you might think. It's good for us to be our own fuel supplier here in Ohio, but when you start going out on the road, you start paying \$5 a gallon, and that hurts."

Grossmann reports that common industry practice allows landing fees and ramp fees to be passed through to the customers, but fuel costs aren't. "So how do you compensate for that?" he asked. "You don't make as much money as you'd like on the airplane, but there are different things you can do to lower your hourly cost. You can fly the aircraft more per month, taking a lot of these costs

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and spreading them around, lowering your costs on the airplane by flying it more per month.”

“We’re trying to become a little more inventive on how we’re doing in business,” Grossmann said. “Because we can’t raise prices—I’m only able to charge today what I was charging in 1999 for the Caravan when fuel was 92 cents per gallon. Today, it’s three dollars. And back then, my planes were new. Today, they’ve got 9,000 hours on them, which means there will always be a little bit more maintenance, so the hourly cost of things has gone up. There’s no real easy, quick fix.

The Next Opportunity

“We’re getting more into the single-engine charter with the Caravan because not everybody can afford a jet or the Cheyenne,” Grossman said. “I didn’t see the single-engine turbine passenger charter market before. Now, I see the market. We can more than halve the cost of a King Air 200 with the Caravans. There’s an opportunity there. I would like to fly 50 passenger-hours each month and make as much as I do flying 80 cargo-hours in the Caravan. So it’s about flying the airplane less, making more, and improving aircraft resale and the same time.”

Grossmann remains passionately flexible when it comes to finding profitable aviation business lines. “Since being involved with NATA, I have met operators all over the country—cargo operators, passenger operators” Grossmann said. “The ones who

are doing very well are the ones who have been able to adapt to their customers and adapt their business to what has been happening. The ones who were just in one market? I mean, I can list a half dozen companies, more on the cargo side, that are no longer around because they didn’t have the ability to see or have some sort of inner vision on what could possibly happen.”

“The single best decision I made in business was to get a Caravan because that’s when I really started making some decent money. The Caravan just goes and goes and goes. Certainly the second best decision I made was moving to a big airport, which really got us going. You make a lot of little decisions all day long, all year long, but very few of the big business decisions you make really change the course of what you’re doing. Moving here and buying Caravans were certainly two of them,” Grossmann concluded.

“I love coming to work in the morning,” he declared. “I get up in the morning, and I love the business and I love what I do. My father taught me that. He told me: ‘Whatever you do make sure you like it. There’s nothing worse than getting up in the morning hating to go to work.’ I don’t care how bad things are, I do not hate going to work. I get up in the morning, and I can work here 10, 12, 14 hours a day. I just love this business, I love being around our people, and that keeps me going because I love what I do.”

Grossmann’s Five Secrets to Success

A graduate of the School of Hard Knocks, Grossmann thinks a degree in business may have helped him. “It certainly would have helped in running or developing a business in aviation,” he said. “This business is very dynamic. Over the years, I’ve learned from making mistakes. I don’t care if you have a degree or not, you still learn from making mistakes. Except with a degree, you should be somewhat more intelligent and maybe shouldn’t have made the mistakes in the first place. We all learn from our mistakes, but unfortunately, when you learn from your mistakes, the lesson is normally expensive. I didn’t always know if I was doing it the right way or the wrong way, but it certainly was my way.”

Today, Grossmann lives by five “secrets to success,” which he credits to Walt Disney:

Think tomorrow

- Imagine the possibilities
- Free up your imagination
- There are no limits to what we can do

Strive for lasting quality

- Everyone has to buy into quality and believe in quality
- Be sincere

Love what we do

- Work hard
- Pay attention to little things
- Welcome competition

Stick-to-it-tivity

- Hang in there
- Don’t give up
- Our only talent is perseverance

Have fun

- Be yourself



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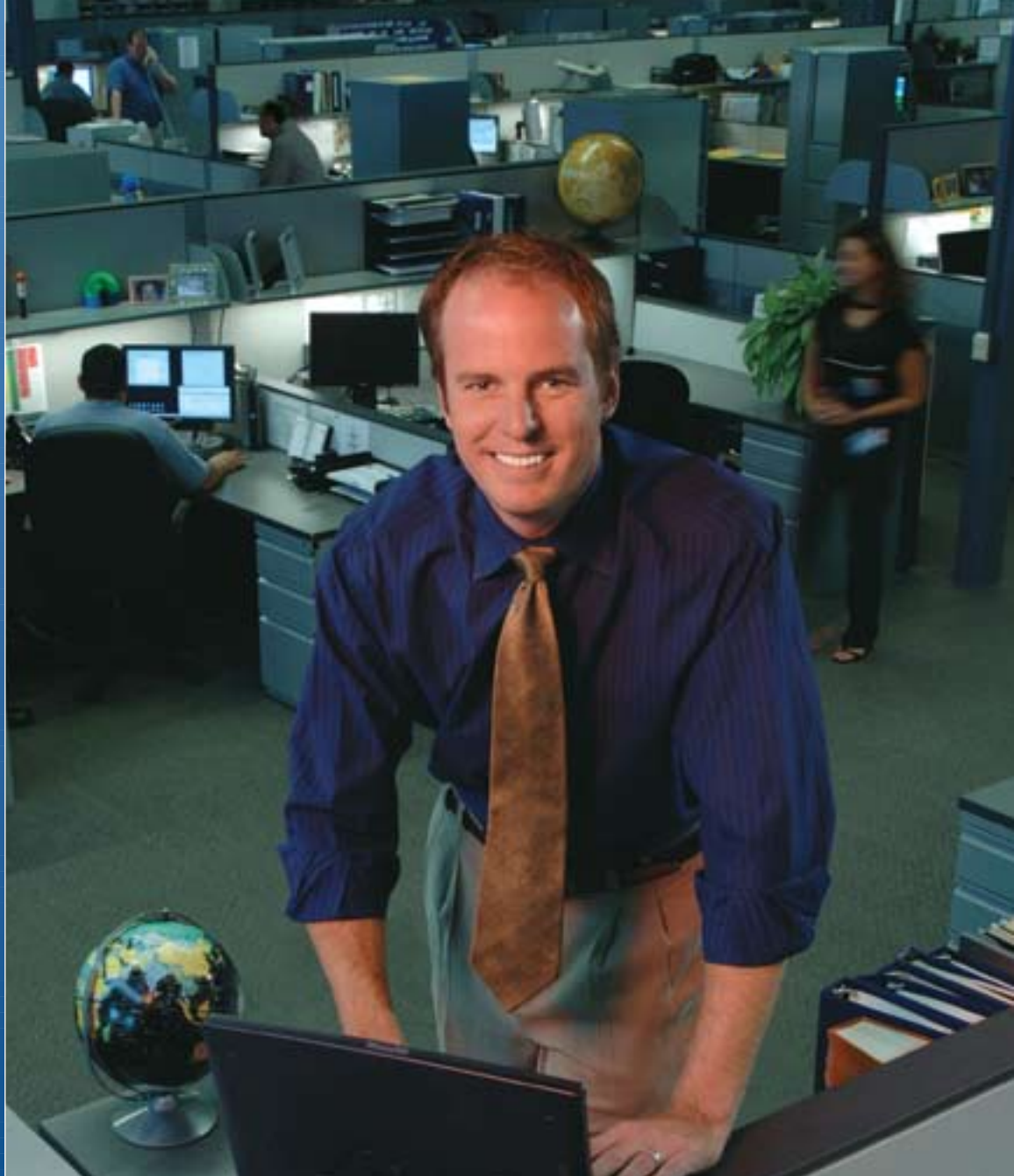
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FBO Accounting Software Moves Beyond Bookkeeping

By Paul Seidenman and David Spanovich

At a time when most small businesses have transitioned their accounting tasks from pen-and-ink ledgers to personal computers, many FBOs still rely largely on manual bookkeeping methods. Others have automated to the point of using generic back office programs that are not aviation-specific and were never designed for the unique FBO business environment.

"When you look at the market for FBO accounting software, the majority of FBOs—mostly the smaller ones—are using simple starter kits designed for very general accounting," said Gloria Barnes, president of Wellington-Royce, an FBO accounting software firm in Atlanta, Ga. She said that while medium to large FBOs are using "partial systems" and older aviation-related software, many of them don't know that newer software is available that can save more time and provide better financial reporting. "Letting the industry know about this is probably our biggest challenge," she said.

Jeff Kohlman, principal of the Aviation Management Consulting Group in Greenwood Village (Denver), Colo., agrees, noting that the degree of accounting system automation still varies widely among FBOs. He explained that although the top third of the 3,500 FBOs in the United States have adopted comprehensive, aviation-specific accounting software systems, some 2,300 have more limited packages or none at all. These, Kohlman said, tend to be at

airfields away from urban areas, mostly serving an owner-flown piston aircraft clientele.

"Of the 2,300, about one-third or about 765, are still using manual accounting methods," he said. "They probably use credit card processing machines, but that's the extent of the automation. Although they might at some point move into a very basic accounting software product, the primary market opportunity in accounting software will be among those FBOs that now use some kind of general accounting software. For that group, this means moving toward aviation-specific accounting products."

Made for an FBO

Aviation-specificity has emerged as a key design feature and prerequisite for today's FBO accounting software products. This means going well beyond bookkeeping to include such areas as customer service and inventory control. One example is commingled fuel, which occurs when the fuel the FBO purchases for resale is stored in the same facilities as fuel paid for by an outside company for its own consumption. That could be an airline for which the FBO has an into-plane fueling contract.

"When you manage commingled fuel, you need software that tells you what you've bought, what your customer has put in, what you've sold, and what's left in the tank—both yours and the customer's," said Jack Demeis, president of Austin, Tex.,-based Continuum Applied Technology, Inc., a specialist in FBO accounting systems.

"You've got to be able to account for that, so that you can resupply the fuel. The problem is that your basic back office software can't do this because it is accounting, not aviation, specific."

Steve Dennis, CEO of the Aviation Resource Group International, a Denver-based FBO consulting firm, noted that FBO accounting software users also need real-time access to two types of information: accounting data and "customer specific" information.

"[Customer specific information] enables you to keep an ongoing record of the names of the persons who are operating or flying on the aircraft and the types of products and services they usually request," he said. "Customer specific data has become an essential marketing tool because everybody likes to be known by name. With the data in hand, the FBO is better prepared for the arrival of the aircraft, its crew, and passengers. At the same time, the accounting function automates the flow of information concerning the transactions taking place with those customers, so the two run parallel to each other."

Bill Greenwell, a partner in Frederick Aviation, an FBO at the Frederick Municipal Airport in Maryland, agrees. "You have to have some type of management system wrapped around the accounting data function, such as a marketing module, which codes your customers by the kinds of products and services they buy," he said. "With that, you can better target your promotional mailings."

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FBO Accounting Software

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These requirements imply more robust and complex “point of sale” (POS) software, which tracks all the business actually transacted at the front counter. That can include fuel sales, catering orders, hotel and rental car bookings, and maintenance. The POS transactions are processed by the software, and the data is fed to the back office accounting systems, which essentially perform a book-keeping or general ledger function.

Aviation Management Consulting Group’s Jeff Kohlman said that FBO accounting software vendors are recognizing that POS products present major opportunities. “When most of the FBOs initially automated their accounting functions, they purchased low cost, off-the-shelf back office systems,” he said. “They didn’t do everything the users wanted, but they did most things well and were inexpensive. But then the software vendors realized that they could develop products that automate the POS function and could easily be attached to, and work with, the current back office systems. Frankly, it’s far more cost effective to do that because you are keeping your current back office system. This saves on installation and training costs.”

Paul Liepe, president of MyFBO.com, a Danville, Va.,-based developer and vendor of an Internet-based FBO accounting product of the same name, reported that today’s customers expect state-of-the-art software packages that will interface with such popular back office systems as QuickBook, which is used by half of his customers.

“What we hear most often from our customers is that they want to move toward full integration of the back office accounting software with POS programs such as ours,” Liepe said. “By doing that, what you get is a single package

with everything available, that you only have to log onto just once.”

Not everyone believes that combining a POS system with a back office system is the way to go. Mike Wardwell, chief financial officer and comptroller of Million Air Dallas, a full-service FBO, selected the Base System, a fully integrated FBO accounting software package from Wellington-Royce of Atlanta, Ga., because it was a complete system. “A fully integrated package is important to us because we believe it does a better job of driving a seamless flow of information,” he said. “We looked at separate accounting packages, and they were not as stable or as seamless as we would have liked.”

Wardwell pointed out that selecting the Base System also had a lot to do with the fact that Million Air Dallas offers many services, including fuel, charter, line maintenance, and aircraft sales. “You really have to take a good look at your operation when choosing an accounting system,” he said. “If, for example, we only sold fuel, there would probably be other systems that would be compatible with that kind of an operation.”

The Aviation Resource Group International’s Steve Dennis estimated that the aviation-specific, off-shelf accounting software products available today are applicable to about two-thirds of the FBO industry. “For the remainder, there are at least a few cases where integrated, proprietary systems would be necessary because they can be customized to the exact requirements of the FBO,” he said. “The more general off-the-shelf products that have an industry-wide application may not always be suitable for very complex FBO operations.”

Along this line, the consolidation of the industry over the past few years may ultimately influence the direction taken by FBO

accounting system vendors.

“As the industry consolidates, more chains will develop, and that will be very helpful for us,” said Hubert (Hubie) Lee, president of PRG Aviation Services, an FBO accounting software developer located in Woodland Hills, Calif. “The chains will have more employees and be run by sophisticated management teams that will demand the tools to monitor market share, margins, and other metrics to make them more competitive. They will look at balance sheets and income statements a little more than skin deep.”

Continuum Applied Technologies’ Jack Demeis urged accounting software developers to view

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FBO consolidations as an inexorable trend. “The mom-and-pop operation is becoming a thing of the past and is giving way to the multiple location, multi-service facility that will demand a more sophisticated software product,” he said. “Because consolidation results in the creation of a group of companies that will work together to standardize their quality of service, information sharing becomes more critical and requires enterprise capable systems.”

Another slowly emerging trend is Internet access of accounting

software programs that reside on the vendor’s server. MyFBO.com’s Paul Liepe said that the advantage of an Internet-based system is reduced start-up costs. “If automation means a large front-end investment in servers, that might be too expensive for some people,” he said.

Jeff Kohlman of Aviation Management Consulting Group said that more vendors are looking toward Internet-based software packages for FBO accounting. “This is being done now, but mostly with the large, multi-location

FBO firms that use the Internet to interface with their company’s central server,” he said. “However, for single location FBOs, the issue is the integrity of Internet connectivity. Until that is 100 percent failsafe, dependence on the Internet carries a huge risk. If you lose your Internet connection while you are carrying out a function, then you will lose the ability to perform the function until you are reconnected.”

Kohlman said that because most

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NOTE: All data was supplied by software vendors.

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Capabilities	Average Price Range	Customer / Sales Contact
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<ul style="list-style-type: none"> Fuel POS, inventory & concierge services Work order quoting, work orders & invoices Procurement & inventory management Logbook research & maintenance tracking Part sales 	License (one-time purchase): \$2,200-3,400 per concurrent user (minimum user count may apply) * _____ ASP (subscription): \$120-160 per concurrent user/month (minimum user count may apply)*	Chris Kubinski (512) 918-8900 x244 ckubinski@corridor.aero
<ul style="list-style-type: none"> Fuel POS, inventory and concierge services Work order quoting, work orders & invoices Procurement and inventory management Logbook research and maintenance tracking Part sales 	License: Contact vendor for pricing _____ ASP (Subscription): N/A	Chris Kubinski (512) 918-8900 x244 ckubinski@corridor.aero
<ul style="list-style-type: none"> Integrated credit card processing Immediate & extensive reporting – easy to understand reports Designed by a CPA – solid financial basis with internal controls & audit trails Airline Accounting option Migration path to FBOperational Fuel Management System 	Prices start at \$320 per month (including maintenance & support), or license purchase at \$ 5,950 _____ Available via month-to-month subscription or one-time purchase	Hubert Lee (800) 877-1425 (818) 710-1425 sales@prgaviation.com
<ul style="list-style-type: none"> Fuel truck automation Credit card processing for all oil companies, bank cards Touch screen interfaces Connects to major accounting programs 	\$5,500 _____ Available via one-time purchase; New ‘Lite’ versions and subscription basis coming	John Nelson LeeAnn Nelson Jason Levine (800) 200-7887 (+1 386 427 4222) info@fbomanager.com

FBO Accounting Software

Continued from page 27

U.S. FBOs are at airports a considerable distance from metropolitan areas, they still use dial-up rather than high-speed Internet connections. "Internet-based accounting programs require a high-speed service, which keeps a lot of FBOs from using them. However, within the next five to ten years, we expect to see further development and refinement of Internet-based, aviation-specific accounting software."

The FBO accounting software producers are eyeing all the market trends and have tailored their products to a broad range of customers, from the large, multi-service chain with posh facilities at urban airports to the independent working out of a trailer and dispensing fuel from a single pump at a rural landing strip. *Aviation Business Journal* has identified six major vendors of nine accounting software products designed specifically for FBO applications.

Regardless of size, finding the right product means planning ahead, as the Aviation Resource Group International's Steve Dennis advised. "Look about three to five years out," he said. "During that period, ask yourself, will your business stay about the same or grow. If it remains about the same, then I would consider the least expensive off-the-shelf product. But if you are looking at growth, I'd advise choosing one that is expandable, one you can add more modules to as your business grows."



Continuum Applied Technology, Inc.

One of the best known POS products for the FBO industry, Corridor counts literally thousands of users to date, according to Jack Demeis, president of the Austin,



Tex., software vendor.

The Corridor family, first introduced in 1997, consists of three products: Corridor Workgroup and Corridor Workgroup Plus, targeted respectively to small and medium-size FBOs, and Corridor Enterprise Plus, designed for larger FBO operations. Each is available with up to 25 different modules that can be selected by the customer.

Demeis explained that Corridor is designed for compatibility with the size and mission of the user, letting customers pay only for what they actually need. Corridor's latest release, Version 8, will be announced at this year's NBAA convention in Orlando, Fla.

One of Corridor's major features is that it can work in tandem with most existing (non-aviation-specific) back office accounting software systems. This, according to Demeis, addresses the fact that most businesses tend not to want to change their primary legacy accounting systems.

The company offers installations on a single desktop PC or on a central server under a license agreement. For Corridor Workgroup and Corridor Workgroup Plus, an Internet delivery option is available on a per user, monthly subscription basis.

Cornerstone Logic

Cornerstone Logic, of New Smyrna Beach, Fla., is well known for its FBO Manager, a POS software product marketed to FBO operations of all sizes and to flight schools. With more than 350

Software Product	Vendor/Manufacturer
FBOperational Fuel Management System	PRG Aviation Systems 6351 Owensmouth Avenue, Suite 105 Woodland Hills, CA 91364 prgaviation.com
MyFBO.com	MyFBO.com 926 Main Street Danville, VA 24541 www.myfbo.com
The BASE System (Business Aviation Software Engine)	Wellington-Royce Corporation 6065 Roswell Road, #2200 Atlanta, Georgia 30328 www.wellingtonroyce.com
TotalFBO Accounting and Aviation Management Software	Horizon Business Concepts, Inc. 721 West Queens St. Broken Arrow, OK 74012 www.TotalFBO.com

customers, the company's major market has evolved into the multi-location FBO, serving primarily a turbine trade, according to the firm's founder and vice president John Nelson.

FBO Manager is designed to bridge the front desk and back office by automating the processing of all sales transactions and transmitting the data to the FBO's main accounting software package. The system uses a touch screen interface for processing fuel, catering, and other services and to generate receipts and invoices, totally eliminating manual methods.

To process fuel sales on the ramp, FBO Manager interfaces with the fuel truck via an electronic register, which records the

Capabilities	Average Price Range	Customer / Sales Contact
<ul style="list-style-type: none"> Monitors operations in "real time" – tracks all service requests; Forecasts manpower requirements, scheduled arrivals & departures Dispatching & monitoring of all services – uses "alarms" to identify overdue items Integrated concierge services – emails confirmations to vendors & customers Integrated credit card processing Immediate & extensive reporting – evaluates impact of pricing decisions, manpower utilization, metrics & other reports for controlling costs 	<p>\$750/month (includes maintenance & support); or license purchase at \$14,000</p> <hr/> <p>Available via month-to-month subscription or one-time purchase</p>	<p>Hubert Lee (800) 877-1425 (818) 710-1425 sales@prgaviation.com</p>
<ul style="list-style-type: none"> Integrates line service, flight operations, shop floor and POS activities Multi-location (enterprise) ready/scalable Internet based – no installation required Wireless access available Exports transactions to QuickBooks and other back-end accounting packages 	<p>\$50-400 per month, depending on FBO needs</p> <hr/> <p>Monthly subscription delivered via Internet</p>	<p>Contact any staff member (434) 793-6800 support@myfbo.com</p>
<ul style="list-style-type: none"> Full integration for all data transactions into accounting Flexible pricing setup with automated discounts Profit & loss statements by aircraft Data security and complete audit trails Supports all aviation services and business processes 	<p>\$20,000-30,000</p> <hr/> <p>One-time purchase of license with annual renewal of support</p>	<p>Gloria Barnes (770) 395-7400 gbarnes@wellingtonroyce.com</p>
<ul style="list-style-type: none"> Full accounting Point of sale functions Shop orders Maintenance tacking Concierges; charter; flight school; inventory management 	<p>\$5,000-8,000</p> <hr/> <p>One-time purchase with service plans available</p>	<p>Traci Lynch (800) 359-9804 Sales@HBCINC.com</p>

NOTE: All data was supplied by software vendors.

fuel flow information from the meter installed on the truck. A 900-Megahertz Wi-Fi is used to transmit the data to the FBO back office software, thus eliminating voice radio communications and all paperwork associated with those transactions. FBO Manager works with all major brands of fuel truck meters, and Cornerstone supplies kits to retrofit the fuel trucks for compatibility with the fuel automation system.

Though acquired in August by Houston, Tex.,-based Universal Weather and Aviation, Cornerstone Logic is being operated by the larger firm as a wholly owned subsidiary.



Horizon Business Concepts

TotalFBO is a well-known, totally integrated accounting product for the FBO industry produced for the past 18 years by Horizon Business Concepts, a Broken Arrow (Tulsa), Okla., software company. To date, five versions of the system have been released, and its customer base ranges from small FBOs through major chains and fran-

chise type operations. The system is being used by more than 1,200 users worldwide.

In August, Horizon Business Concepts contracted with Houston-based Million Air to be the exclusive accounting software provider for the FBO franchise group. For Million Air, the vendor will supply its Enterprise version of TotalFBO, which has been designed for multi-location operations.

TotalFBO, explained company president Leann Lehmann, is a highly versatile system designed

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FBO Accounting Software

Continued from page 29

for single computer use or for a central server. The software is also designed for multiple service operations, including fuel, maintenance, charter, flight schools, concierge, and customer profiles.

By this fall, the vendor will add an Internet feature called the "Flashturn On Line Service Request System," which will be available to FBOs on a subscription basis. Customers of those FBOs will be directed to the Flashturn site, where they can register and confirm a service request—all at no charge to them. Participating FBOs can use the site to advertise fuel prices and provide for service reservations. Lehman said the system is now in Beta testing with current TotalFBO customers and will be offered to the broader market following an announcement at this year's NBAA conven-

tion. Flashturn will be offered to TotalFBO users at a discount.

TotalFBO is offered under a license as well as a license plus an optional, yearly fee-based service plan that provides unlimited support, including software upgrades, at no additional charge.



MyFBO.com

In 1998, MyFBO.com introduced an FBO accounting software product of the same name that resides exclusively on the Danville, Va.,-based vendor's server and is accessible solely online. Company president Paul Liepe said that MyFBO.com has a large presence in the small to mid-size multiple

location FBO segment, although it does count very large multi-service chains among its customers.

According to Liepe, MyFBO.com "fills a gap" between the small flight school requiring some automation for aircraft dispatch and the large FBO that can afford to install in-house servers. Because it is an Internet-based system, servers are not required.

Along with customer accounting functions such as billing and pre-payment tracking, MyFBO.com's capabilities include leasing and contract accounting,

online credit card processing, fuel farm management, ground service reservations, flight dispatching, maintenance, and inventory management. For flight schools, the software provides student curriculum tracking.

The software's safety and security features include hazardous incident reporting and tracking, while a security module supplies TSA-related information for foreign students wanting to train at U.S. flight schools and generates security badges and passes.

MyFBO.com can also provide customers with PDAs that can process a credit card transaction on the ramp. Using cell phone networks, the sales data is transmitted directly to the MyFBO.com company server, which then generates an email receipt, sent to the buyer, for the transaction.

PRG Aviation Systems

PRG Aviation Systems, a Woodland Hills, Calif.,-based software company, offers two accounting products specifically geared to the FBO industry: ELS Fuel Management System and FBOperational Fuel Management System.

Company president Hubie Lee describes ELS as a system designed for the small and medium-size FBO that fuels 40 to 60 aircraft per day, mainly owner-flown piston models. Specifically, the software provides POS tracking



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and accounts receivable management and reporting. It can also generate invoices and post data to the user's general ledger software for financial statement purposes.

The more capable FBOOperational caters to the major FBO firm that needs an advanced planning tool to control costs and manpower requirements. The typical user has a large, demanding customer base that can include corporate flight departments, fractional ownership companies, and airlines.

FBOOperational offers more than just basic, monthly financial reporting capability, Lee said. Among the software's more advanced capabilities is its ability to determine what impact a pricing decision might have on a specific product or service the FBO offers. It also enables the FBO to track customer purchases throughout the day, helping the operator determine the busiest times and the manpower requirements for those periods. FBOOperational can also be used to build customer profiles and prioritize service delivery times based on arrival and departure times of aircraft. For flight school or charter firms, the system includes an aircraft dispatch feature.

Under current planning, PRG will release a shop inventory/work order module for both ELS and FBOOperational by year-end.

Wellington-Royce Corporation

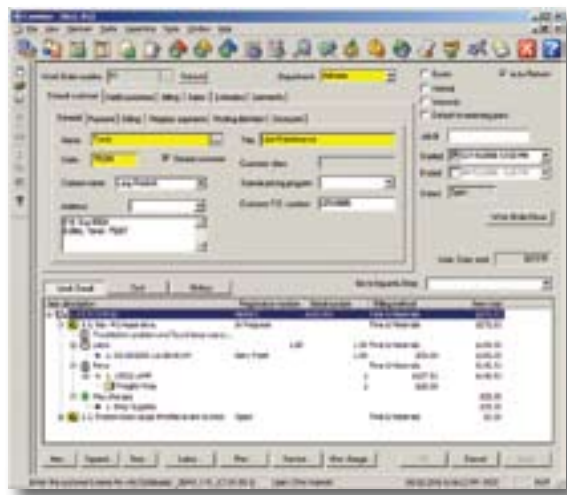
Wellington-Royce Corporation's BASE (Business Aviation Software Engine) System is designed as a complete FBO accounting package, encompassing both POS and the back office. Currently, 400 to 500 customers at 60 to 65 airport sites are using the system. According to Gloria Barnes, the Atlanta software firm's president, those

users are mostly full-service FBOs.

BASE has more than 22 applications, with eight core applications built in. Of the core applications, three are dedicated to basic accounting functions: accounts payable, accounts receivable, and general ledger. The remaining applications are available on an optional basis, which can be easily incorporated as a customer's business grows. For example, the "Purchase Services Request" option is a requisition system that can be used when an FBO needs to acquire equipment.

At the end of August, three additional modules were added to the software, including one enabling centralized tracking of concierge and ground services, including car rentals and catering. A second module, known as a "customer relationship management program," is designed to manage customer profiles. The third module, totally dedicated to aircraft management, enables the user to issue up to three different invoices per charter trip, depending on how the cost of the charter is separated out.

The BASE System is resident



on the client's server and can be delivered to the customer via CD, tapes, or the Internet. It is compatible with both single and multiple location FBOs. In fact, only one server is required for single and multi-location FBO companies. ■

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The Continuing Threat of Aircraft Misfueling

By Mike G. Mooney

What Is Misfueling?

Delivering the incorrect grade of fuel into an aircraft is termed a “misfueling.” Most general aviation aircraft and some aircraft used by airlines are fueled by the gravity or “over-the-wing” method, and therefore the nozzles for either avgas or jet fuel may fit into the fuel tank opening. This creates the significant risk of a misfueling.

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Aircraft Misfueling

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What happens when an aircraft engine is misfueled? The serious consequences of misfueling vary based on the grade of fuel and the engine type, but here are some examples:

- Total engine failure due to knock damage if jet fuel is delivered into a spark-ignition piston engine powered aircraft that requires avgas.
- Ignition failure if avgas is delivered into a compression-ignition [diesel] piston engine powered aircraft that requires jet fuel.
- Vapor lock and engine failure due to fuel starvation if avgas is delivered into a turbine engine powered aircraft that requires jet fuel. Many turbine engines are capable of operating on avgas, but such operation is strictly controlled as described in the Pilot Operating Handbook.

If an avgas powered aircraft is inadvertently refueled with jet fuel, there can be sufficient avgas remaining in the aircraft's fuel lines and carburetors to enable the aircraft to taxi, run up, and even take off. When the jet fuel reaches the engine, often at a critical time during the takeoff, the engine can fail and cause a forced landing or worse, a crash.

What Went Wrong?

In analyzing the documented cases of misfueling, a variety of causes were identified, but the leading cause was lack of grade confirmation, meaning that the fueling staff did not confirm with the customer the grade of fuel required. Because there are many

similar looking aircraft in operation around the world, visual appearance alone cannot be relied on to identify which grade of fuel the aircraft requires.

The Diesels Are Coming

To complicate matters, greater numbers of diesel-powered aircraft are now being manufactured, and in some cases existing aircraft with spark-ignition piston engines are being converted to diesel engines. Aircraft fitted with diesel engines are very similar in appearance to aircraft fitted with spark-ignition piston engines, making visual identification very difficult. In addition, the filling ports on modified aircraft may not have been replaced with the larger diameter airframe fueling port associated with aircraft requiring jet fuel. The consequences of fueling these aircraft with avgas can be catastrophic.

An Industry Standard

Clearly there is a need for a comprehensive set of procedures to address the many possible causes of misfueling. To address this need, an API/IP Aviation Fuel Subcommittee, whose members include John Thurston of Air BP and Martin Tippl of Exxon-Mobil, are currently drafting a recommended practice document entitled "Procedures for Over Wing Fueling to Ensure Delivery of the Correct Fuel Grade to an Aircraft." Once the draft is completed, it will be sent to the full API com-

mittee for review and adoption. Once published, we hope that this document becomes the industry standard for aircraft misfueling prevention.

Elements of a Misfueling Prevention Program

The key elements of effective misfueling prevention should be adopted into the standard practices at all fueling operations. These elements include:

- Training,
- Grade Confirmation,
- Written Fuel Order Forms,
- Grade Decals for Aircraft and Fueling Equipment,
- Selective Nozzle Spouts, and
- Fuel Receipt Quality Control Procedures.

Training Is Key

Root cause investigations in the aftermath of aircraft misfueling (as well as a majority of other incidents) have identified insufficient training as an all too common cause. A very basic rule for all aviation businesses should be:

All employees providing any kind of service for anyone shall have documented training using an approved training program administered by a qualified instructor.

The documents to support proper training should include:

- Copies of written exams (with passing scores), and
- A sign-off for each of the necessary skills by a qualified instructor signifying that the student demonstrated they were competence in performing that particular service safely.

The NATA Safety 1st program is superb on this documentation as it contains the forms to document each service. However, in some cases we have found that it was not filled out and the application

The Look-alikes

- Piper Mirage [avgas] and Piper Meridian [jet fuel]
- Cessna 404 Titan [avgas] and 441 Conquest [jet fuel]
- Twin Commander 580 [avgas] and Twin Commander 690 [jet fuel]

for Safety 1st certification was never sent to NATA.

Recurrent training should be done based on intervals (annual, semi-annual, etc.). For refresher training, the simple act of casually observing employees perform their job can result in an accurate assessment of their skills. If you see that the job is not performed correctly, submit that employee for some refresher training. The dates and results of these follow-up observations and any training provided should be recorded in the employee's training record.

All personnel must clearly understand the consequences of any lapse in maintaining correct procedures. I call this delivering the "what's in it for me." The consequences of a misfueling are deadly serious, therefore it is essential that personnel are fully trained to undertake over-wing fueling of aircraft to prevent misfueling.

Training staff should develop a written, risk assessed job task that contains a step-by-step procedure on how to over-wing fuel an aircraft. This job task should also address health and safety issues and any legally required personal protective equipment required when performing such work.

Training aids such as posters or bulletins describing the requirements of misfueling prevention and other safety subjects should be located on walls, doors, and bulletin boards to remind refueling staff to remain vigilant in preventing misfueling.

Grade Confirmation Is Essential

When taking a verbal fuel order, the requested fuel grade should be repeated back to the customer to ensure confirmation. Whether verbal or written, all fuel orders

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Aircraft Misfueling

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must include confirmation of the grade of fuel required. Essential information in a fuel order is:

- Fuel grade,
- Quantity of fuel to be delivered into each fuel tank, and
- Aircraft registration.

Pilots commonly request “200 a side” or “top it off,” without specifying the fuel grade required. Again, it is critical to repeat the order back to the customer and have them confirm the grade required, as in “Is that 200 gallons of JetA a side?” or “Is that a top-off with Avgas 100LL?” (Ideally, the employee asks this while handing the customer the now-written fuel order and asking him or her to sign it as confirmation.)

If you are working personally with a customer, receive an overwing fueling verbally, and plan to complete the fueling immediately, you won’t need to write up the order, just verbally confirm the fuel grade. In all other instances, the order must be written after being verbally received from the pilot.

The recording of verbal orders and their accurate transmission from one person to another are critical in ensuring that the correct fuel grade and quantity are delivered. Meter tickets and other documentation used routinely to initiate normal fueling or billing processes are not written fuel order forms as they do not document the confirmation of the fuel grade.

“50 a Side with Go Juice Please”

Using standard product names when referring to aviation fuel products is important to avoid confusion. Customers often use unusual or abbreviated product names, which can lead to confusion. This is particularly apparent where customers have operated internationally. For example, in Spain the local name for jet fuel can be “petroleo,” which is very similar to “petrol” as used for gasoline (more like avgas), in many countries. Some pilots may use only one grade of fuel in their fleet and may not be aware of the importance of grade confirmation.

When orders are received from customers (or from instructions



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relayed via other staff members) that do not use "standard" product names, you must clarify the grade. Orders such as "aviation fuel" or "gasoline" have the potential to cause the delivery of the incorrect grade of product.

Fuel Grade Decals

All aircraft owners should fit fuel grade warning labels to the over-wing refueling ports of their aircraft. These labels are provided free of charge by fuel dealers and provide the best warning to the line staff of the fuel grade the aircraft requires. The fueling equipment should have fuel grade decals on all four sides. Many operations have placed fuel grade

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Are You Nozzle Savvy?

Do you know which nozzle should be used on your aircraft and why? All avgas-powered aircraft with over-wing fueling ports should have an opening smaller than 2 inches. FAA-mandated restrictor plates are available for larger openings.



Avgas Nozzle
(1-inch spout)



Jet Fuel Nozzle
(J-spout)

2 1/2-inch oval spout. The intent is that the 2 1/2-inch J-spout for jet fuel will not fit into the tank opening on an avgas-powered aircraft fitted with the restrictor plate.



The Rogue Nozzle (straight spout)

Jet fuel nozzle, 1 1/2-in spout. Be on the lookout for jet fuel nozzles fitted with this spout. It will fit into an avgas aircraft even with the restrictor plate. These should not be installed on jet fuel nozzles.

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Aircraft Misfueling

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decals on the inside of the vehicle's windshield (at the top so it won't block the driver's view). That way drivers can see the grade of fuel the vehicle carries as they approach the aircraft.

No Decal, No Fuel

A policy should be established that line service personnel only refuel aircraft that are properly fitted with appropriate fuel grade identification that matches the fuel grade on the refueling equipment they intend to use. In cases where no such identification is visible on the aircraft, employees should have a completed fuel order form before proceeding with the fueling.

The "Rogue" Nozzle

Close control and access of the "rogue" nozzle spout (see sidebar on page 39) is critical in an effective misfueling prevention program. In case after case we have found FBOs that have removed the J-spout and installed the rogue nozzle spout permanently. We ask them why they would remove such a critical item, and they usually say "because we fuel some aircraft (usually helicopters) that the J-spout won't fit into." So they risk misfueling avgas aircraft

so that they will not have to bother with switching nozzles for a relatively small number of aircraft. Convenience will not be a very convincing argument in court if you remove the industry standard misfueling prevention device!

We recommend that the rogue nozzle spout be kept in the care and custody of a supervisor. If it is needed, the supervisor can confirm the need (by confirming the fuel grade and tank opening size) then issue the rogue nozzle and ensure its prompt return.

Fuel Receipt Quality Control Procedures


The worst scenario in a misfueling is gross fuel contamination upstream in the fuel supply system. Most fuel suppliers take careful measures to ensure that only clean, dry, on-spec product is delivered to airports. However, if this product is delivered into the wrong tanks, it will contaminate the fuel in the tanks. If this contaminated fuel is not discovered and reaches an aircraft, the consequences could be deadly.

Adherence to established fuel receipt quality checks is the best defense against this kind of misfueling. Key elements include:

- Testing the gravity of the fuel and ensuring that it is within acceptable tolerance limits when compared to the accompanying certificate of analysis, and
- Conducting a visual inspection of the fuel to ensure it is the appropriate color.

Once the fuel grade is confirmed and other quality control checks are acceptable, the use of grade selective couplings at the point of connection on the fuel farm where the road transports off-load will help prevent the wrong grade of fuel from being delivered into the storage tank. Also, the grade selective connectors must be used to transfer product into the refuelers to prevent the loading of the incorrect grade of product into fueling vehicles.

Working Together

Aircraft misfueling is a continuing threat in our industry, but by working together to ensure that appropriate preventative measures are followed, we can help stop aircraft misfueling altogether. The wrong fuel grade can be deadly, so when it comes to fuel grades, never speculate. Always make sure. 

Mike G. Mooney is with Air BP Aviation Services. Special thanks to John Thurston of Air BP and Martin Tippel of Exxon-Mobil for their contributions to this article.

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By Dan Kidder

Everyone in business knows what it takes to succeed, how to meet the bottom line while keeping the overhead low, and most importantly, how to successfully market their services and products to their customers. Everyone in business has to know this because, after all, everyone in business has an MBA, is an expert in marketing, and most importantly, has a full-time staff dedicated to selling and marketing their products and services to each and every potential client in the marketplace. True or false? Please show your work.

Of course the above statement is blatantly false. Few business people go into their chosen market because they are general business experts. Those who choose a particular line of business do so because they are experts in their industry or, more often, because

they have a passionate love for the goods or services they offer. This is truer in aviation than almost any other industry.

The unfortunate reality is that once a person begins to provide services or goods in their beloved industry, they tend to get so bogged down in the day-to-day business operation, marketing, personnel, accounting, facilities management, etc., that they seldom get to work in the areas they really enjoy.

What if I told you there was a way to free up some—not all but some—of your time to pursue the aspects of your industry that originally drew you into it in the first place? Would you be interested? Of course you would. You would run like a mad horse to learn more. However, the second I tell you that a successful website is just the key you need, many of

you chomp at the bit, dig in your heels, and won't budge an inch to utilize what can be an easy, inexpensive, and practical tool to market your business.

Why Have a Website?

We have discussed this topic in previous ABJ articles, so I won't till that ground again, other than to restate the most important aspects. Websites provide an inexpensive way to reach customers, are easy to update and change, give you the means to provide your customers with vast amounts of information without tying down a sales staff to answering basic questions, and make your business vastly more competitive than similar operations that do not have a website.

The problem most small to medium-sized businesses face is that they understand this, have a website, and haven't seen the

results I have so flippantly promised. "Alright Bub, if it is so easy, inexpensive, and efficient, why aren't the customers beating down the door?" you ask. Because there is more to successful web marketing than just having a site.

What Good Is a Website If No One Can Find It?

Any business presence in cyberspace must have some key elements in order to be found amongst the tens of millions of websites on the World Wide Web and the millions of websites that offer similar services as your business. Just as you spend time and energy to ensure that your signs and marketing materials shine, similar attention must be paid to your website.

Fear not, intrepid web warrior, there is a toolbox filled with equipment to make this process quick and relatively painless.

Get the Word Out!

The first key to promoting your website is ensuring that every piece of marketing material prominently displays your web address: your business cards, brochures, email signatures, signs, aircraft, tugs, and even painted on the tarmac next to your tower frequency. Your current customers will learn where can they reach you, and they can easily forward your information to others they feel will benefit from your services.

Make sure that any directories, charts, listings, and advertisements prominently display your website. The NATA member online directory at www.nata.aero is a searchable database that potential customers use to find service providers in their area. Visit the site and make sure your company information is correct, and that

your website appears in the listing.

Searching, Searching, Searching—12 Million Matching Sites

The first step in ensuring that your site is appearing is going to a major Internet search engine, such as Google or Yahoo!, and testing typical search terms that you expect a customer might use. If you can't find you, neither can they.

META tags are text headers on your website that utilize a description and keywords that a search engine pulls when searching for matches to a site. Your site must have these important elements to come up in a search.

Just sticking the META tags in the header of your website is not sufficient. You then must make sure that the search engines know to look at your site, add your web address to their database, and cross index it to your keywords. This sounds complicated, but it really isn't.

Some services charge hundreds of dollars to do what I am about to tell you how to do for just about one hour's work. Most search engines have the ability to submit your site to the search engine database. Once you have done this, usually by clicking on the "submit" or "suggest URL" link and filling out

a brief form, electronic robots called spiders or META crawlers, will visit your site, pull your keywords, and add them to their database. Additionally, Yahoo! and many other search engines are driven by a publicly edited database called the Open Director Project, Directory Mozilla, www.dmoz.org. Once your website is submitted to one of these search engines using the ODP, it is simultaneously submitted to the hundreds of other search engines in the DMOZ. These include AOL Search, Yahoo!, Excite, and many others. This still won't make you pop to the top of the list, but it does put you on the cyber map, so to speak.

Google-powered websites use

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Internet Marketing

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a completely different algorithm (mathematical formula to designate actions) to catalog sites and return results. While you can still manually submit a site through Google, the world's most popular and most accurate web database doesn't care about your META tags. In Google, content is king.

To move up the list of search results, you must ensure that your website has text relevant to the search query from the potential customer. You must understand what is meant by "text." Text must be information actually formatted into the site's hypertext markup language. Google's spiders do not crawl animated Flash elements, portable document format (PDF) files, attached Microsoft Word files, or anything other than the native code that makes up your site.

Because content is king, it is not only imperative that the text of your site provide cogent material for your viewers but also that any possible search string you can conceive your customers using be

included in the search text. This process is known as text optimization and is the single most important key to ensuring high listings in search results. It is also the single greatest reason that your web content needs to be thoughtfully constructed and carefully crafted. Do not just dump your brochure text onto your website!

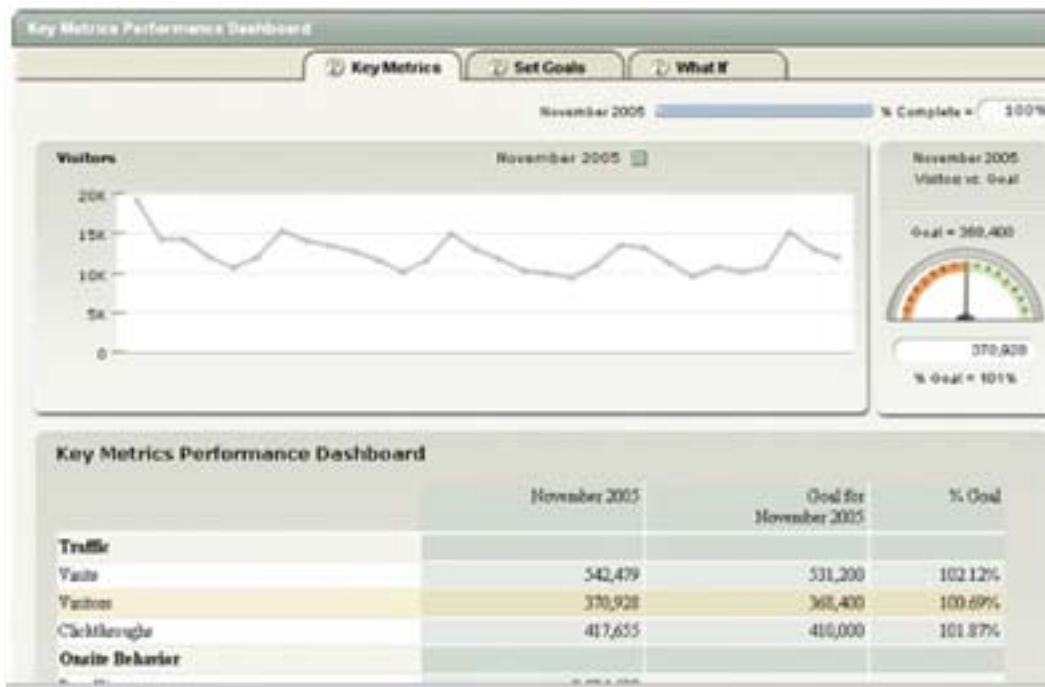
Google Ad Words

To provide an added edge to your search results, advertise your site. This can be done very inexpensively through services such as Google Ad Words. Basically, you set a monthly budget that Google divides into an average daily budget. You select a series of keywords you think your customer might type when looking for your services. Each time a web surfer types in one of those strings of search terms, your ad appears at the top of the list under "Sponsored Sites," until you have reached your average daily budget. You are charged only when the surfer actually clicks on the link to your site. Charges per

click can range between 8 and 50 cents per click. Once your budget has been maxed out, your ad no longer appears for that day.

Ad Words gives you tremendous flexibility to track and modify your keywords to make sure that those who click on your ad are actually interested in your service. It will suggest similar keywords for terms you provide, tell you in detail how many clicks you are getting based on which keywords return results, and provide suggested changes to your site to help you better optimize your text to return valuable results. This can cost as little as \$10 per month or as much as you want to spend. Obviously, if a \$30 per month expenditure results in just one additional \$10,000 charter or an increase in the sale of even 200 extra gallons of avgas, then it is a well-made investment.

Make no mistake, there is a steep learning curve on Google Ad Words, but the company provides many helpful tutorials to guide you through the process, and once you have mastered the process, your site will be a Cyber Megalith to be reckoned with. Additionally, the increased traffic will cause your non-sponsored link to move higher in the search results, as relevance is another aspect used by Google to determine search result standings. Because Google is the number-one search engine in the U.S. and even has been added to the *Oxford English Dictionary* as a term for searching



the Internet, it is well worth the investment to make your site as Google-friendly as possible.

Additional Google tools let you add search capability to your web content, monitor web traffic, analyze and maximize content, sell goods, and much more.

Check Your Charts!

Websites allow you to quickly and efficiently post and modify content, which unbelievably is often the most underutilized benefit of the medium. Far too often, businesses post content on their site and put it on autopilot. To take full advantage of this fluid medium, you must monitor how people are finding your site, and alter the content to maximize the number of visitors who find useful information about your business.

There are several tools available for web monitoring and analysis, and each has its own benefits and shortcomings.

Google Analytics

Packaged with Google AdWords, Analytics is another valuable tool. It provides detailed breakdowns of how users find your site, how long they stay, what they look at, and what they do with what they find. It also lets you see where in the country they are coming from.

Webalizer

A stand alone application, Webalizer (www.mrunix.net/webalizer) provides similar analysis as Google Analytics, giving you the ability to break down web visitors in a variety of fashions. Webalizer also allows you to see detailed re-

ports on when visitors are hitting your page. Combining this data with Google Ad Words lets you set your ad to appear only during the highest traffic times to your site, making it more likely that your customers will find you when they are typically searching.

WebTrends

WebTrends (www.webtrends.com) provides a suite of analysis tools to let you truly monitor and maximize web traffic. Detailed graphics, minute-by-minute breakdowns, and automated reporting are some of the unique features. Fortune 500 companies use this tool to monitor their multi-million dollar websites, and it can be as simple or complex as you want it to be. WebTrends can also work

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Internet Marketing

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as a consultant for your business and make sure that all the work is done for you on a contract basis.

Take the Stick!

As the old G.I. Joe cartoons used to remind us, "Knowing is half the battle." In the battle for control of the Internet, or at least our little piece of it, the other half of the battle is taking the stick in hand and maintaining control of our site. It is not enough to leave the site on autopilot, letting it run day in and day out with outdated content, lack of relevance to customers, broken links, attached documents that haven't been viewed in ages, etc. The content must be clean, fresh, and functional.

Now that you have tools to analyze your content, you must take that knowledge and use it to modify your content accordingly. Once trends start appearing in your analysis, steer the site to

capitalize on them. For example, if people from regions you had never considered begin visiting your site and purchasing your goods and services, modify your external marketing to tap into that customer-rich region.

If you see that customers are hitting your site and immediately leaving, provide content that will make them stick around and come back often. You could add live weather for your region, updated fuel prices, Jeppesen charts for your airport, aviation news, interesting trivia, etc. Be creative and keep them coming back.

Location, Location, Location

Just as any aviation business would be foolhardy to locate in a train depot, where you place your website in cyberspace has tremendous impact on how effective it will be. Hard to find web

addresses, web addresses that are too long, and mid- or bottom-level domain names all decrease your website effectiveness.

An example of a mid- or bottom-level domain would be something like, www.comcast.net/joespages//aviation/abcjet-fuel/index.html. A key rule is that if you can't remember your URL, you can't expect that customers will. Use online tools, such as Network Solutions (www.nsi.com) domain name lookup or GoDaddy (www.godaddy.com) to purchase a domain name that reflects your business.

Another key is using the new ".aero" extension, which is available only to aviation organizations and businesses, to differentiate your business as a purely aviation business. That way, customers searching for Joe's Fuel will immediately be able to tell that your

business sells aviation fuel, as opposed to Joe's Filling Station in Baton Rouge that sells gasoline. (Yes, even Joe in Louisiana has a website these days.) The extension also allows you to purchase domain names that aren't available with a .com extension that you have always wanted to own for your business. Contact NATA's communications department for information on getting an .aero extension.


A top-level domain makes your site easier to find and also sends a subtle message to your customers that they are dealing with a professional enterprise. Another benefit



Checklist

- ✓ Do - Have a website
- ✓ Do - Have a top-level domain
- ✓ Do - Update it often
- ✓ Do - Analyze traffic and adapt your content
- ✓ Do - Market your site
- ✓ Do - Have interesting content such as local weather information and links to national aviation weather on your site
- ✗ Don't - Leave your site on autopilot
- ✗ Don't - Think that your site will replace your other marketing efforts
- ✗ Don't - Have a generic email address
- ✗ Don't - Ever consider your website finished

is that it provides you with top-level domain email addresses, joe@yourdomain.com, as opposed to joesaviation@aol.com. This tells customers that you are a top-notch operation worthy of their business.

Most of the information we have discussed lays a groundwork for a successful web marketing strategy. Obviously a plethora of companies provide consulting on these issues, and libraries are filled with tomes on how to make your website work for you. This article isn't intended as a comprehensive resource on this issue but rather aims to familiarize aviation businesses with concrete steps they can take to maximize exposure for their enterprise. Think about how your website presents your business and discuss options with your webmaster to integrate these solutions into an effective web campaign. The difference you see may not be immediate, and some tweaking will be required, but in the long run, these tools and steps will generate tangible results for your bottom line. 

Next Issue: Checkride Your Content – How the Lack of Killer Content Can Kill Your Site

Dan Kidder is President of Kidder Communications, an Arlington, Va.-based communications consulting firm that specializes in small and medium-sized business marketing and political consulting. For more information, go to www.kiddercom.com or email dkidder@kiddercom.com.

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The Biggest Myth in Aviation?

By Russell Lawton

“Safety is always top priority.” You often hear this slogan bandied about and see it on those slick workplace posters, but could this expression really be the biggest myth in aviation? Let’s think about it for a moment. The very definition of the word “priority” requires that we evaluate competing alternatives. So, calling safety a priority means it will change based on the needs or urgencies of the moment, such as trying to please a demanding customer or the boss to meet a schedule.

Admitting we might not always put safety first doesn’t mean we deliberately intend or want to be unsafe. But if we don’t have a logical, orderly process written down for everyone to follow, coupled with a firm management commitment, safety can easily take a backseat to the bottom-line or the latest crisis du jour.

“Of course safety is first in our company; we’ve never had an accident,” you might be thinking. This is the traditional response to the “Are we safe?” question. While it’s definitely a point of pride, the lack of accidents isn’t the only way to measure your company’s safety performance.

The aviation industry has learned through the years that it’s cold comfort to go about fixing problems after a tragedy has occurred. We have instead started to embrace a systematic approach to safety, or systems safety, as a result of lessons learned. The late Jerome F. Lederer (who championed system safety in aviation and space flight) described system safety as, “Organizing to put your hindsight where your foresight should be in the identification and management of risks.”

Risk identification and management are the core of the system safety process. For this process to succeed, the company must have a strategy, top management’s commitment to the process, and full company participation. Safety must be considered a value, not a priority, in the organization.

With Lederer’s sage words and a process in mind, here are ten points to evaluate whether your company truly puts safety first.

1. Our company has a documented, comprehensive, company-wide safety plan for identifying and managing risk that is distributed to all employees and is regularly updated.
2. Our CEO or other accountable executive takes responsibility for implementing the safety plan and ensuring its success.
3. Safety starts at the top in our company and is routinely emphasized as a core value.
4. Our company safety policy clearly states that any employee can report a safety issue without fear of retribution.
5. Our company safety policy is articulated in all company documents, such as operations and maintenance manuals, employee handbook, standard operating procedures, etc.
6. Our employees are rewarded for “doing the right thing” where safety is concerned.
7. Our company has a safety manager who reports directly to the CEO or accountable executive.
8. Our safety manager is considered a resource and facilitator, not someone to blame when things go wrong.
9. Our company has a safety committee, comprised of representatives from each department, that meets regularly to get ahead of safety issues and when special needs arise.
10. We routinely communicate safety issues and provide feedback on safety concerns to our employees.

So how did you fair? Were you able to confidently and positively confirm that all ten areas are completely covered and documented in your company? If not, conduct an honest assessment of your operation to determine where the gaps are. Develop an action plan and start the process to ensure you have a systematic approach to managing risk. It won’t happen overnight, but with company commitment, it will be an evolutionary process. At some point you’ll be able to truthfully say, “Safety is always first in our company.”



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SAFETY 1ST News

The Eye-Opening SMS Ground Experience

NATA's Safety Management System (SMS) Ground is reaching maturity with some participants completing their manuals and many in the midst of completion. Many safety coordinators have told us that the journey is an eye-opening experience that gives them an appreciation for a system to better manage safety at their operation. SMS participants are very vocal about the SMS being more than a book on the shelf—it is a living, breathing document born of sweat and pride.


As ground participants experience safety awareness, they have come to realize not only the need, but also the desire, for guidance on best ramp practices. The Safety 1st team, with the assistance of SH&E and NATA's Safety & Security Committee, has begun to develop the best procedures as well as alternatives to assure safe practices from the smallest to the largest ramp.

NATA's Safety 1st eToolkit provides guidelines for selecting the appropriate chocks for ramp use (Go to www.natasafety1st.org.) With guidance from NATA members and the committee, we will continue to provide the best ramp practices for any size FBO. 

SMS Web Casts: Similar Challenges, Shared Solutions

Each month, safety personnel participate in SMS manual guidance and development through web casts taught by our safety experts. Participants receive email invitations to join one of eight web casts (all eight continue every month), which require Internet access to view presentations and a telephone connection to listen.


SMS participants call the web cast assistance right on target, as the presentations provide enlightened guidance while the discussions with others along this journey prove invaluable. Knowing that others experience similar challenges is half the battle, but sharing solutions with others, including safety experts who offer advice, jump starts the safety process.

If you are looking to bolster your safety program through a systematic approach, go to www.natasafety1st.org for a monthly web cast schedule. 

Aviation Expert Lawton Joins NATA Safety 1st Team

Aviation safety expert Russ Lawton has joined NATA's Safety 1st Program as director of safety and security. Lawton has held key safety positions as an experienced charter operations advocate over the past three decades in aviation. Joining Amy Koranda on the Safety 1st team, he brings a depth of safety expertise to NATA's SMS Air Operations.

Lawton holds a master's degree from the University of Southern California and a bachelor's degree from the Florida Institute of Technology. He is also an active Cessna 210 owner and pilot.

Full details on Lawton's background are available on the pressroom section of NATA's website. 

Safety Watch continued on page 53



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Together, we make Workers Comp workable.

As an aviation industry professional, we don't have to tell you how rough the skies have become. You probably know better than most. So let's skip directly to the part about how you might actively make the insurance part of your business a little more workable.

As an NATA member, you may be eligible to participate in one of the association's Workers Compensation Programs. One program is underwritten by USAIG, the other by Phoenix Aviation Managers, both are administered by AirSure Limited. Just as flying in a V formation means more efficiency for the flock, joining a group of other aviation businesses could mean better coverage for less money with your Workers Comp insurance.

Because, beyond competitive rates, you're also eligible to earn an annual reward when the group has a good year. Though not guaranteed, you'll like

the odds. In 28 of the past 30 years, the USAIG plan has paid nearly \$45 million in good experience returns, averaging 19.26%. The Phoenix Program, which started a few years ago, just earned its first good experience return in 2005. That's what we call making Workers Comp . . . workable.

To find out whether you are eligible to participate, just give your broker a call today, or contact the NATA program manager directly.



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Safety Watch

Continued from page 51

SMS Workshops: SMS 101 and Manual Development


Taking the first step along a journey is sometimes the most difficult. The Safety 1st team and the FAA will hold regional seminars across the nation to demystify safety management systems and answer your questions about what an all-inclusive safety system can do for your operation. The first of these seminars, which begin in late September, will be held in the New York City area. Check the NATA website for dates and locations.

Beginning this fall, the Safety 1st team will also hold a series of one-day workshops to assist NATA SMS participants with SMS manual development and completion. The workshops are for those beginning the process as well as those who have begun, and they include a day spent one-on-one with safety experts devoted to manual start/completion. All SMS modules will be discussed in-depth and template sharing will help with safety manual implementation. The workshops are designed to supplement the web casts and other program guidance.


When the workshop schedules are firm, announcements will be made to NATA's membership in the eNews, eToolkit, and Fitebag newsletters. 

Updates for SMS Air Operators

The FAA issued Advisory Circular (AC) No. 120-92, *Introduction to Safety Management Systems for Air Operators*, dated June 22, 2006. NATA has updated its SMS for Air Charter Guide to align with the new FAA AC as well as international standards and guidance materials. NATA SMS participants will receive the updated version of the enhanced guide, including the new name, NATA Safety 1st Management System for Air Operators.

To find out more about the NATA Safety 1st Management System for Air Operators, go to www.natasafety1st.org. 

New PLST Developments Are around the Corner

NATA's Safety 1st Team has been reviewing the best means to provide online training for our PLST participants. After many discussions with our oil company partners, the NATA Safety & Security Committee, the NATA Board, and many top-notch online providers, we are pleased to announce that we are in the final stages of choosing an online delivery system. We will share the news through NATA eNews and the NATA Safety 1st eToolkit when the final details are confirmed. 

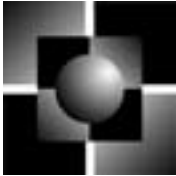
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See our listing in the NATA Aviation Resource Book & Membership Directory

NATA Announces New Financial Benchmarking Service for Members

In the fast-paced aviation industry, you need up-to-date financial trends on your company and comparative benchmarking analysis to make informed business decisions. As such, NATA has partnered with the iLumen Financial Information Network to provide its members with access to industry analysis and benchmarking trends for the aviation industry. The service will enable members to answer key questions every month, quarter, and annual period as they close out their accounting books:

- Did the business grow as fast as others in the industry?
- How do my margins compare in each of my profit centers?
- Are our costs in line?
- For key productivity measures, are we achieving efficiencies in line with others that are the same size?

The web-based service is easy to use and is updated each time NATA members upload their financial information. You will be officially invited to participate later in the year, but we want to provide you with a sneak peek of what's to come.

The iLumen Financial Information Network is a community of thousands of private companies in all major industries. These companies anonymously contribute financial information, which drives industry-specific analysis and comparative benchmarking trends easily viewed by business owners and managers. Your trusted financial advisors (accountants, bankers, consultants, etc.) can be enabled on the service with your permission.

Benefits for NATA Members

NATA believes that this benchmarking service will provide members with the following benefits:

- Easy way to upload and analyze your financial information,
- Financial and non-financial metrics displayed on industry-specific dashboards,
- Benchmarking trends that allow you to compare your financial performance to peers in the aviation industry, sorted by geography and size ranges,
- Real-time access through a secure NATA branded website, and
- A more complete understanding of your financial position every month.

The aviation industry is a uniquely complex service industry with many moving parts. With this service, you can view how your company is trending overall and then drill down to individual profit centers such as fuel line services, charter services, maintenance, flight training, and airline servicing.

You can then compare your performance to other members, sorted by company size and geography, to have a true picture of how you stack up. You can also spot trends in the industries of your customers and suppliers that could affect your business.

Key Metrics for the Aviation Industry

- Fuel Gross Margin %
- Service % Revenue
- Profits Before Depreciation
- Facilities Rental Revenue per Square Foot
- EBITDA %

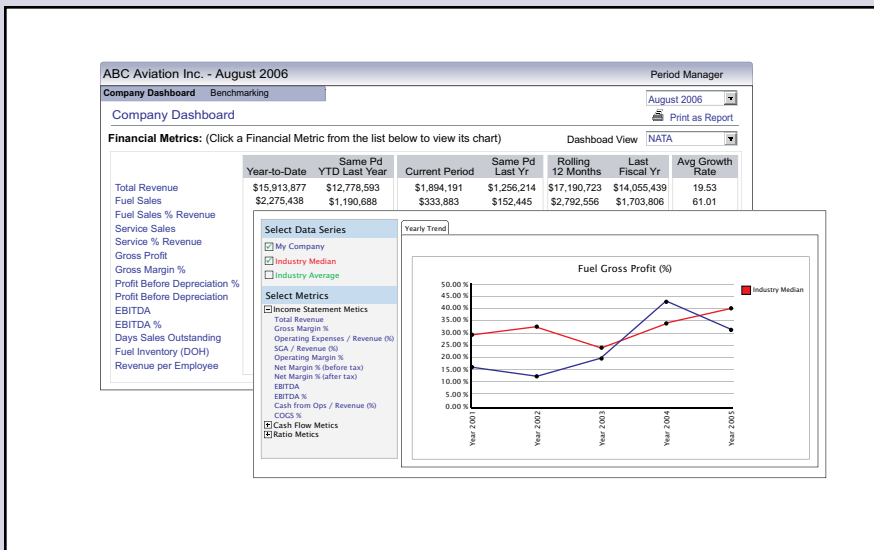
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contributed from private companies. It accepts financial data from all accounting software packages and does not require any changes to your chart of accounts. The data are standardized, frequently updated, and do not include any third-party sources. iLumen has formed partnerships with banks, accounting firms, trade partners and industry associations to deliver their services to private companies.

NATA members will hear more about this service in the coming months. An annual subscription to the network is \$395.

What NATA Members Are Saying

Dale E. Froehlich, president and CEO of Business Aviation Services, and Bill Greenwell, general manager of Frederick Aviation, recently discussed how using NATA's benchmarking service will impact their businesses and the aviation industry. Common themes included having a better understanding of their current financial situation, the importance of comparative industry benchmarking, and the difficulty of explaining their complex businesses to people outside of the aviation industry.

"The diversity of NATA's membership represents some unique challenges that this service addresses, namely being able to handle the various ways we keep our books without us having to do any additional work," Froehlich said. "iLumen will help us take the financial information we currently have and make it much more useful. This will keep us more accountable on a monthly basis. And having access to comparative industry benchmarking trends will give us valuable insight into our business and industry that we've never had before."

"I see three areas being positively impacted by using a service like this," Greenwell said. "First, being able to view and compare our financial trends every month will help us better identify opportunities to grow our business throughout the year. It will also help us to better communicate our financial position to people unfamiliar with the complexity of our industry, specifically bankers. Lastly, I think this initiative will help quantify the aviation industry and give us more visibility when NATA represents us on legislative and regulatory matters."

How Does It Work?

The NATA/iLumen service is comprised exclusively of private company financial data anonymously

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