Chapter 8: The Pride of Ownership

This plane can teach you more things and give you more gifts than I ever could. It won't get you a better job, a faster car, or a bigger house. But if you treat it with respect and keep your eyes open, it may remind you of some things you used to know -- that life is in the moment, joy matters more than money, the world is a beautiful place, and that dreams really, truly are possible.

Lane Wallace, 'Eyes of a Child,' ***Flying*** magazine, February 2000

One of the great mysteries to non aircraft owners is, how much does it cost to purchase and maintain your own airplane? This question alone stood between me and purchasing an airplane for the first 15 years following my first solo flight. I had long recognized that the actual purchase price of an airplane represented only a small percentage of its total ownership costs. Owning a boat years earlier had taught me that. Aside from the costs of fuel and oil changes, there were the costs of insurance, hangar rental annual inspections, and compliance with periodic airworthiness directives (ADs) issued by the FAA. Then there was the cost of acquiring and maintaining current technology in the cockpit. Items in this category include electronic engine monitors, satellite based moving maps, and weather avoidance equipment. As sailboat owners are known to say, "the rigging costs more than the hull."

The alternative to owning an airplane is renting one. Renting is relatively easy and there are no hidden expenses. Nearly every airport serving the general aviation community has at least one or two airplanes available for rent. That is the upside to renting.

The downsides of renting are many. I spend nearly 350 hours a year in rental airplanes as a flight instructor, so these downsides are still fresh in my memory. First, most rental airplanes are low performance trainers with cruising speeds equivalent to a fast truck on the interstate. Second, most are simply beat. While basically airworthy, their paint and interior show evidence of countless hours of operation by ham-fisted, low time pilots and students.

This introduces the question of safety and reliability. Maintenance of basic airworthiness and knowing the actual condition of an airplane's myriad of systems are two different things. The former refers to simply fixing things while the latter refers to predicting when things will actually break.

In addition, most rental aircraft have only rudimentary flight instruments and minimal redundancy of critical flight systems. While typically not a problem in good weather conditions,

taking minimally equipped or unfamiliar rental airplanes into poor weather conditions is risky at best.

For me, the most frustrating downside of rental airplanes is the absence of reliable schedule availability. I want to fly when I want to fly. If the rental plane is otherwise in use or "down for maintenance," I cannot fly. If business flying is involved, this downside can be intolerable.

Suffering through 15 years of frustrating rental operation, I was anxious to find another solution. Scheduling rental airplanes for my expanding business travel obligations was quickly becoming a crap shoot, typically requiring that I carry a backup airline ticket if the rental aircraft was unexpectedly out of service . . . which it often was.

I found a temporary solution to my rental aircraft frustrations. Several of my friends had their own airplanes. One was Mark Weissman. Mark and I went through our instrument training together. He owned a handsome, late model Piper Archer that he fastidiously maintained in showroom condition. Mark was not able to fly as often as he wanted to, so it was to his financial advantage to have somebody else rent his airplane from time to time.

Unfortunately, insurance restrictions prevented Mark from renting his airplane to me in the conventional sense. To do so would require a hefty increase in Mark's insurance premiums along with burdensome maintenance record keeping requirements. Like most situations in life, there was a solution. I entered into a simple shared expenses agreement with Mark. Rather than technically renting his airplane, I became a non-owner partner that allowed me to share his operating expenses in direct proportion to the amount of time I flew his airplane. These costs were easy to predict so we agreed on a per hour operating charge. I would purchase whatever fuel I needed then we would settle up with him at the end of each month for whatever number of hours I used. All he had to do was add my name on his insurance policy. The cost was roughly the same as I had been paying to rent an airplane, but under this arrangement I was flying a real quality machine. And due to Mark's busy practice schedule, his airplane was nearly always available.

The joy of flying a quality airplane for nearly six months under this arrangement whetted my appetite for having my own airplane even more. But I wanted something faster and bigger. I began looking around for an owner of a high performance, six seat airplane with whom I could share expenses as I had been doing with Mark.

I eventually found a retired Air Force fighter pilot named Steve Kaplan. Steve owned a Cessna 210 Centurian that he hangared at Niagara Falls Airport. Steve seemed willing to allow me to fly his airplane, but I had no experience with high performance, complex airplanes. Further, his insurance company required that I accumulate at least 25 hours of dual instruction in a retractable gear aircraft before they would permit me to fly it.

I gave a call to my friend Lou Nalbone, owner of Dunkirk Aviation at the Dunkirk, NY Airport. This call set the wheels in motion for the required training. Dunkirk had a Cessna 210 on a leaseback arrangement with one there tenants. This gave me access to both a retractable gear airplane and a flight instructor for the required training. Once completed, I began the final stage of pre-ownership flying in Steve's 210. I was on my way to achieving long awaited airplane ownership.

My infatuation with larger, faster airplanes was, indeed, fueled by Steve's Centurian. Its

gross takeoff weight was 4,000 pounds, a full 1,500 pounds more than Mark's airplane. It could carry six people instead of four, and it could cruise at 170 knots rather than 120 knots.

These performance considerations came with a large increase in operating costs. It was at this point that I began to examine my ultimate mission requirements in detail. This is a critical first step in choosing an airplane to purchase.

Many recreational pilots are content to own a smaller four seat, or perhaps even a two seat airplane for fair weather, weekend flying. Their purchase, operating, and maintenance costs, which I will address further below, are very low. This is a definite plus for pilots who want to maximized their flying hours at the lowest possible cost.

These weekend-type airplanes, however, do not make good long cross-country machines. They are simply too slow to be practical. They are generally ill equipped to handle adverse weather conditions. They are too small to carry both family and baggage for any significant distance. But they are economical to fly.

There are exceptions, however. I have seen many fast two and four seat aircraft that are equipped with the latest in radio/navigation equipment. Most popular among these are the home-built variety such as those designed by Van's Aircraft Corporation, Cirrus Aircraft Company, and other manufacturers to the home built industry. These models offer the best of both worlds. They are economical and they go fast. The only downside, leastwise for me, is that you have to assemble them yourself. For a fellow who finds changing spark plug a challenge, home built models was not an option for me.

After much thought, I reduced my mission requirements to essentially cross country flights of between 400 and 1,200 miles. Operating from Buffalo, NY, where winter weather is notorious, I needed something that would permit flight in all kinds of weather, particularly wintertime icing conditions. This meant that I would need to fly above the predominate weather systems that typically remain below 15,000 to 20,000 feet. Having six instead of two or four seats would allow me to carry business associates and baggage.

The Cessna 210 Centurian matched my mission requirements. I did give thought to a light twin engine aircraft such as a Beach Baron or a Cessna 310. Interestingly, the acquisition cost for a used light twin was equal to and, in many cases, less than a high performance single engine aircraft. A little research soon revealed why.

Twin engine aircraft are not twice as expensive as single engine airplanes to maintain, but they come close. Instead of one engine overhaul every 1,600 hours or so at $32,000, there are two at $64,000.

The question of improved safety afforded by twin engine aircraft is debatable. The answer to this question is not intuitively obvious. Accident data maintained the Aircraft Owners and Pilots Association (AOPA) Air Safety Foundation reveals that in the hands of low time, inexperienced pilot who does not engage in aggressive recurrent training, the light twin has a worse safety record than high performance singles. This, of course, is not the fault of the twin; rather, it is attributed to the fact that pilots make inappropriate control responses to sudden engine loss, particularly when it occurs during the first critical moments after takeoff.

On the other hand, single engine power losses require much less decision making. Either turn back to the airport, or land straight ahead. Usually the altitude at which the power loss occurs

is the deciding factor. If it happens at 900 feet or less above the ground, one lands straight ahead. Higher altitude engine loss generally permits a safe return to the airport.

Larger airplanes, single engine or twin, are not necessarily more difficult to fly. This fact points to a strange paradox in professional flying. The larger the aircraft, the easier they become to fly, yet the pilot is paid more. Aside from power management during an engine out scenario, larger aircraft are easier to fly from the control manipulation perspective. What makes them more challenging to fly, however, is their more complex systems. The Cessna 310, for example, has eight separate fuel tanks that require continuous monitoring and control to keep fuel flowing reliably to both engines. It has twice as many engine cylinder head temperatures as a single to monitor and control. Its landing gear system supports more weight than that of a single, thereby making it more intolerant of landing and taxiing abuses.

Professional pilots flying larger aircraft are paid more not so much because of the complexity of the aircraft, but because of the federally mandated training required and because of the increased liabilities associated with flying more people simultaneously. Yes, jet pilots will argue that things happen more quickly in faster airplanes. My usual retort is that larger, faster airplanes are equipped with two pilots to compensate for the faster speeds. My last conversation on this subject was with a couple of Navy F-18 pilots. Both emphatically agreed that the F-18, with proper training, is among the easiest of all airplanes to fly because of the computer assisted flight control systems. Airline pilots often agree that the Boeing 747 falls in the same category as easy planes, again with proper training, to fly, surpassed, perhaps, by the newer Boeing 777.

Okay, with sufficient experience and commitment to frequent recurrent training, isn't a twin safer than a single? Again, the answer depends. There are only two scenarios where a twin offers a greater margin of safety than a single. The first is during the first one minute following runway liftoff. The other is over large bodies of water.

Having flown lots of different training aircraft and now the Centurian, I was convinced that the latter would most suitably fit my mission requirements. My work required lots of cross country flying, so I needed a traveling machine that could carry me affordably from the east coast to the Rocky Mountains and back.

While a small twin engine aircraft would also fulfill my requirements, the cost of operating and maintaining that second engine was a deal breaker for me. Since I did not have to carry either freight or more than a couple of people at a time, the Centurian continued to rise to the top of my very short list of possible aircraft types and models.

The number crunching required to justify the purchase of an airplane began with a simple analysis of my average monthly aircraft rental expense. I had been flying about 200 hours per year. At $100 per hour rental cost, this equaled $20,000 per year. Added to that was my average of $2,000 per month in airline tickets. Altogether I was spending approximately $45,000 year for air travel.

Assuming 90 percent financing over 15 years, I could afford to pay about $2,000 a month on aircraft payments. At 10 percent annual interest, a $2,000 per month finance payment would support a purchase price of approximately $200,000. The average price for a used Centurian ranged from $85,000 for an early 1970s model to $250,000 for latest, well-equipped models manufactured the mid-1980s.

Armed with this information, I stepped up my aircraft search. I engaged my friend and pilot colleague, Lou Nalbone to help me find the "perfect" airplane and to perform the pre-buy inspection once I found it. As I mentioned earlier, Lou runs Dunkirk Aviation and is one of the most knowledgeable guys around when it comes to airplanes, particular Cessna models.

Days turned in weeks and weeks into months as I poured over internet sites and various print publications advertising used airplanes for sale. I was certain about one important thing. Unlike many aircraft shoppers, I knew the exact make and model aircraft, even the model year, that I wanted. Making this decision before actually shopping for airplanes made the whole process a lot simpler and far more efficient.

Finally, after nearly 12 months of serious searching, I located two possible Centurians for sale near Dallas, Texas. I faxed the specification sheets for each airplane to Lou for his review. Naturally, he found a few faults with both, but concluded that they were strong candidates.

Growing impatient, I suggested to Lou that he and I go down to Dallas to have a look. He agreed.

We arrived in Dallas late in the evening, with an appointment early the next morning to check out the first of the two airplanes we came to see. I felt as excited as I did about 40 years earlier when I negotiated the deal on my first automobile.

Armed with an understanding to avoid purchasing the first airplane one looks at, I went to bed practicing mental self-restraint.

Lou and I awoke early the next morning, had a quick breakfast in the hotel restaurant, then made the short drive over to the nearby private airport where the first of the airplanes we came to see was hangared. My level of anticipation grew as we walked from the airport parking lot to the hangar.

As Lou and I walked into the hangar, a wave of disappointment quickly came over me. The airplane we had traveled over 1,500 miles to see was, frankly, a dog. The paint was peeling, there was in dent in the tail, and the interior looked worse than most rentals I had flown.

It was easy to turn down this airplane, but I had one minor problem to resolve. In my enthusiasm to purchase an airplane, I had foolishly sent the seller a certified check for $5,000 to hold the airplane until I could get to Dallas to look at it. I feared that the seller may not be inclined to return my check. Lou and I walked into the sellers office and sat down. The seller asked me how I like the airplane. I chose my response carefully, not wanting to risk losing my deposit.

"Well," I said. "Have you ever gone on a blind date?

“Certainly," came his predictable response.

"Have you ever been disappointed on a blind date," came my next question.

"I suppose."

He quickly caught my message, opened his right hand desk drawer, pulled out my $5,000 check and handed to me. I motioned to Lou, suggesting we say goodbye to the disappointed seller, and move on to the next candidate.

We began driving 40 miles to the other side of the city. Driving south on the interstate circling Dallas, I spotted a sign to the City of Arlington, Texas. Recalling that Arlington is the location of Van Bortal Aircraft Sales, I motioned to Lou to turn off at this exit. Maybe Van Bortal had a Centurian for sale. It was at least worth a trip over to see.

Van Bortal has a reputation in the general aviation community for dealing only in higher end products and it was well known that he commands top dollar for his airplanes. After the first experience earlier in the day, I was ready to see some quality aircraft.

We pulled up to Van Bortal's large hangar. Unlike conventional hangars, the Van Bortal hangar floor was gleaming white as were its walls and ceiling. The entire facility appeared to be as sterile as a hospital operating room and it was large enough to hold at least six airplanes.

Sitting all by itself in the center of the hangar was the most beautiful Centurian I had ever seen. Its shiny paint glistened in the early afternoon sunlight reflecting off of the hangar floor. I blinked, wondering if this airplane was an apparition appearing in an imaginary desert. I was love struck and decided instantly that I MUST have this airplane.

Like the high school geek being introduced to the prom queen, I walked slowly towards the airplane and opened the door. Its interior had the smell of new leather and its instrument panel twinkled with many of the bells and whistles of an expensive business jet. I touched, felt, and caressed each of six seats, ran my hand over the plush headliner, and knelt on its lush carpeting.

I walked around the airplane marveling at its mirror-like finish. A specification sheet was affixed to the right side window just as they do in automobile showrooms. This is too good to be true, I thought. It was turbo-charged. It was certified for flight in known ice. It had weather radar. It had a brand new interior. I was in airplane heaven!

Like a love lorn teen, I was smitten by this beautiful airplane. "I want this one, Lou," I said with no doubt in my mind.

"Slow down, Bob, let me ask a few questions and check this thing out." Lou got right to work beginning the pre-buy inspection while I engaged the salesman in a discussion about price.

"How much," I asked?"

"$229,900."

"Is it negotiable?"

"Firm," came the salesman's reply.

The asking price was $50,000 more than the $180,000 price ceiling I preset in my mind before leaving Buffalo. But I simply HAD to have this airplane. It was perfect in every way. Plus, unlike a purchase from a private individual, Van Bortal was offering a 30 day, spinner to tail, no questions asked, warranty.

Ignoring Lou's pre-purchase inspection related tasks then underway, I asked the salesman if they would accept $210,000. He said he would have to check with his boss, Howard Van Bortel. Returning several minutes later, the salesman said they would accept $210,000 if I did not quibble with them over petty squawks. Squawks is an aviation term denoting mechanical problems or other discrepancies in the condition of aircraft. I could not imagine this airplane having any squawks.

I called Lou over and whispered in his ear their willingness to accept my offer.

"Bob, I haven't finished the pre-purchase inspection."

"Okay, you finish up and I'll try to crank some numbers to see if I can do this deal."

I knew I could handle $200,000. I could stretch $210,000, but I also had to consider what was fair market value. I certainly did not to pay more than the airplane was worth. Buying at the right price meant that I could always get my money out if I had to sell. Like real estate, and unlike

boats and cars, airplanes appreciate in value over time. I began to rationalize that even if I paid a couple thousand dollars over its present market value, time would ultimately work in my favor.

Despite its 20 year age, this airplane had a total of only 1,000 flying hours on the airframe. In human age equivalent terms, this airplane was still a child.

Curiously, when it came from the factory in Wichita, Kansas, it was immediately flown across the Atlantic Ocean to its first owner in Spain who rarely flew it. The dry Spanish climate proved very good to the airplane. There was no evidence of corrosion anywhere on the airframe or wings. Howard Van Bortal discovered the airplane and had it returned to the U.S. for refurbishment and sale.

After several more hours of pre-flight inspection, detailed reviews of the log books, a couple of calls to the finance company, and a moment or two of silent prayer, I said to Lou, "Let's do the deal!"

In hindsight, this proved to be a good decision because, unknown to me at the time, a group of pilots from Auburn, NY had seen the airplane and were trying to get the fourth member of their group to make up his mind.

I signed the purchase agreement, handed over a $5,000 down payment, and began what prove to be one of the most exciting periods of my life.

It took several days to complete the financing package, secure the insurance, sign the transfer papers, and have the airplane delivered to my home airport in Buffalo. During this time I signed a one year lease on space in a heated hangar at Prior Aviation, Buffalo International Airport's fixed base operator.

Airplanes are different from all other assets. Seldom understood by the non-aviator, airplanes possess a certain mystical quality. They have a personality, a temperament, and a character all their own. A good airplane will serve her owner well; a bad airplane, as if demon possessed, will be nothing but headaches . . . or worse. Centurian Four Seven Two Zero Yankee was a good airplane.

As I mentioned earlier, the airplane came with a 30 day/30 hour spinner to tail warranty. Van Bortal agreed to replace or repair any mechanical problems that developed withing that period. I gave the airplane a thorough shake down during this period, and it paid off handsomely.

Airplanes need to fly to remain in top notch condition. This one had relatively few flying hours. The first victim to its low flying hours proved to be its flight instruments. And, thankfully, those that would fail did so within the 30 day warranty period. They included the horizontal situation indicator (HSI), followed by directional gyro (DG), and the altimeter. Van Bortal replaced these instruments as promised, at a retail cost equivalent to them of over $10,000.

Having completed the aircraft purchase step, I next set about enhancing it to fit my particular needs. At Lou's suggestion, I had GAMIjectors and an electronic engine monitor installed within the first month of ownership. Unlike the stock fuel injectors they replace, the GAMIjectors provide a balanced fuel flow to all six cylinders. This, in turn, allows the fuel-air mixture to be aggressively leaned, resulting in cooler engine operation, decreased fuel consumption, and decreased cylinder pressures, all of which lead to longer engine life.

The cost for this modification was about $6,000, but it would reduce the fuel consumption by about four gallons per hour. At $3.00 per gallon, this translates to $12.00 per hour savings.

Multiplying this savings by the projected 1,600 hour life of the engine equals $19,200. At my anticipated usage level, I would recover cost of this modification within the first year of operation. The total savings would offset nearly 75 percent of the cost of the next replacement engine.

The only other enhancement I chose to make would be quite expensive, so I decided to wait at least a year before doing this. Two Zero Yankee's communications and navigation radios were original equipment. This made them about 20 years old. While they worked fine, replacement parts, if needed on the road, could be difficult to secure. They also lacked the moving maps that new GPS units offered.

The absence of GPS capability, alone, represented a significant shortcoming in terms of today's technology. With IFR approved GPS, I could fly direct routings to most destinations rather than slogging along published airways that airplanes had been doing for the past 50 years. Here again, the anticipated operating cost savings would be sufficient to save at least a part of the cost of updated radios.

Two Zero Yankee had proved to be everything I had hoped. I flew it often and I flew it far that first year. I took numerous trips to see family in Orlando, and nearly thrice weekly business trips all over eastern two-thirds of the United States. Maine, Wisconsin, Kansas, North Dakota, and Florida were my most frequent destinations.

I was not only learning the ins and outs of Two Zero Yankee, I was becoming, leastwise in my own mind, an "expert" on both weather and geography. After a while, I could boast the ability to name every major river east of the Continental Divide.

It was just about one year after I purchased Two Zero Yankee that I took it down to Factoryville, Pennsylvania, the home of O&N Aircraft Modifications, to have the radios replaced. While there, I succumbed to the temptation to have several additional enhancements added to the airplane.

One enhancement was the installation of a 28 gallon auxiliary fuel tank. This would add another two hours or about 300 miles of range. I also had several structural modifications made to the tail and horizontal stabilizer attachment points. The original manufacturer's attachment design utilized aluminum fittings which tend to crack over the years. The approved modification uses steel fittings. I also had the nose gear trunnion replaced with beefed up fittings.

The last enhancement was purely for pleasure rather than safety. It was a concert quality CD player. Altogether, these modifications totaled about $34,000. Like most home improvements, the market value of the airplane was increased by about 50 percent of the cost of these enhancements. In time, the normal appreciation of the airplane would allow me to theoretically recovery 100 percent of these costs.

Two Zero Yankee gave me another year of trouble free flying. The dual GPS maps took all the mystery out of long distance navigation and enabled us to reduce the length of each trip by at least 20 percent. The auxiliary fuel tank eliminated the need for en route fuel stops on trips over 800 miles. And the CD. Even that added a measure of safety to each flight by sending calming music through the earphones.

The last enhancement to Two Yankee came a year later. The was the installation of a WX-500 Stormscope. This electronic device complements the radar system by detecting and depicting electrical discharges in the atmosphere or lightning in all directions within 200 miles of the

airplane. Together the radar and stormscope provides nearly all the real time weather information to remain clear of thunderstorms and other serious forms of convective activity. The stormscope with installation cost about $9,000.

The purchase price of $210,000 plus $6,000 in engine monitor and GAMIjectors, plus $30,000 in new radios, auxiliary fuel tank, and CD player, and the $9,000 for the stormscope brought the total package up to a little over one-quarter million dollars.

Those were the acquisition costs. Next comes the fixed and variable operating costs. Fixed costs are those incurred regardless of whether the plane flies or not. They include insurance of about $3,500 per year, hangar at $325 per month, navigation chart and data card subscriptions of $1,200 per year, annual inspection costs averaging $2,500 per year, and interest of about $9,000 annually on the borrowed dollars to purchase the airplane.

Variable costs are those that increase with each hour of flight. They include fuel at $3 per gallon or about $21,000 per year, oil changes every 50 hours of operation or about $2,000 per year, and unscheduled maintenance of about $3,000 per year.

The total annual costs computed thus far of owning and operating Two Zero Yankee works out to about $43,600 or $3,883 per month. Most would agree that, unless one is rich and famous, this kind of monthly expense is indefensible from a purely recreation standpoint. From a business perspective, however, it makes a great deal of sense if the aircraft produces more income, or other benefit, than it costs to maintain.

Are there additional costs to owning and airplane? You bet! Aside from acquisition costs and fixed and variable operating costs, there are overhaul costs. Generally limited to the engine, overhauls involve either replacement or rebuilding an entire system or component at the end of its predetermined or actual useful life.

Fortunately, overhauls do not happen very often. Two Zero Yankee's engine, for example, has a predetermined useful life of 1,600 hours of operation. If the average pilot flies, say, 100 hours per year, his engine should run without overhaul for 16 years. In most cases, however, it will require an overhaul well short of 16 years simply because the deteriorating effects of time. Moisture, for example, is an insidious engine killer. Fortunately, engine operation tends to burn off most accumulated moisture before it does any significant damage. Consequently, an engine that is not run frequently will deteriorate far faster than one that is.

I operate Two Zero Yankee nearly 500 hours per year. That means I face an engine overhaul every three years or so. At $30,000 per overhaul, that equates to about $10,000 per year, or roughly $900 a month. This brings the total cost of ownership to $4,783 per month or $57,396 per year

There is yet one more element of expense that's neither acquisition, nor fixed or variable operating costs, nor overhaul cost. This expense falls in the category of unexpected repair. Depending upon the aircraft component involved, this expense can be considerable. The 7 inch by 15 inch heated windshield plate on Two Zero Yankee replacement cost is approximately $9,000. Each of the landing gear actuators are about $8,000. The magnetron in the radar unit is $10,000. The replacement cost for the autopilot is $35,000. Obviously, this cost category can go on and on.

All things considered, Two Zero Yankee has been a good airplane as far as costs are concerned. The only real surprise in my first three years of ownership was a pesky electrical

problem that took mechanics nearly a week to troubleshoot and repair. The bill for this a little over $8,000.

The most costly repair came predictably after 1,600 flying hours. This was the cost to replace the engine. The manufacture's suggested engine life for Two Zero Yankee is 1,600 hours. Called "time before overhaul" or "TBO," this is the point where, in the manufacture's best judgement, the engine should be overhauled or replaced. For private flying operations under Part 91 of federal aviation regulations, TBO times are advisory only.

With an average usage of 40 hours a month, it was easy to predict the year and month when Two Zero Yankee would require a new engine. By planning for this event well ahead of time, I was able to accumulate and set aside the necessary $30,000 accomplish this task. It also made it easier to create a three week gap in my busy travel schedule to allow sufficient time to make the change.

There are three major reasons why airplanes exist. These are: (1) sport and recreation; (2) convenience; and (3) business. For me, Two Zero Yankee is a business tool. As such, it must generate more money than it costs to purchase and maintain. This means that it must be put to work . . . often. Some have suggested that there is no greater item of expense on earth than an airplane sitting idle on the ground.

Business airplanes generate income in a variety of ways. Airlines and air taxi services, for example, generate revenues by transporting people, mail, and freight. Two Zero Yankee makes money by transporting just one person - me and occasionally a business colleague or two.

The accounting for this is rather simple. When I purchased Two Zero Yankee, I also created a corporation called Aerogrants, Inc. Aerogrants, Inc. is the registered owner of Two Zero Yankee and I am the sole shareholder in Aerogrants, Inc. When I travel on business, my primary company, Robert J. Miller & Associates, Inc. (RJMA) pays a $220 hourly rental charge to Aerogrants, Inc. At 500 hours rental per year, this equates to approximately $110,000 per year. Aerogrants, Inc., in turn, pays Two Zero Yankee's $57,000 annual operating expenses. Subtracting these expenses from its $110,000 in rental income produces a $43,000 annual profit earned by Aerogrants, Inc. for renting the airplane to RJMA, Inc.

Not only is Two Zero Yankee producing a profit for transporting me and my business colleagues, its utility substantially enhances my company's mission effectiveness. I can get to clients literally on a moment's notice. There are no constraints of airline schedules, sold out flights, obtrusive security checks, circuitous routings, or misconnections. And I can take along up to five staff people, and my golf clubs, at no additional cost.

One substantial benefit category is taxes. I'll leave details of this category up to the accountants, but suffice it to say, the tax advantages of aircraft ownership when used for business purpose are profound.

Here is why. Most people get paid a salary from their employer. They pay taxes on this salary. Then they spend what is left. When you own your own business, on the other hand, you receive pay for the services you render, then you spend, then you pay taxes on what remains. See the difference? Salaried workers spend after tax dollars; self employed persons spend pre-tax dollars. The same can work with salaries workers who create a corporation that owns an airplane for business purpose. In this instance, the cost of owning and operating the airplane is deducted

from the gross income from that business. Taxes are paid on what is left.

Perhaps the most profitable aspect of Two Zero Yankee comes from the joy I receiving in flying it. How this translates to bottom line profits is easy to see. We receive numerous inquiries about our services from organizations around the United States. Many of these inquiries include an invitation to come and meet with them. Back when I was traveling by airlines, we would require that inquiring organizations pay my travel expenses otherwise we simply could not afford to travel to every inquiring organization. Now looking for any excuse to fly, I not only travel without expectation of reimbursement, I wind up closing more deals than I ever did before!

In summary, Two Zero Yankee is, indeed, an expensive business machine that generates more net revenue than it costs to maintain. That is, after all, the key to business.