

I-Tec Built Plane Gets Presidential Recognition -Steve Saint 06-24-09

Dear aviation enthusiasts with a bent toward ministry and
Missions enthusiasts with a bent toward aviation,

The president of Ecuador just made a visit to the little community called Shell Mera where my family lived in End of the Spear. From news I have just received, it sounds like one of his significant reasons for visiting this small community on the edge of the Ecuadorian Amazon was to visit our little airplane building operation. The president did not send one of his many functionaries, he went himself and inspected a plane we have just built as part of our program to develop an affordable, easy to fly, easy to maintain "Preacher Pilot, Plane".

As we get ready for the "big event" at Oshkosh where 'ministry and humanitarian aviation' are getting special billing this year (and where Itec has been asked to be a major contributor), we thought the debut of the Maverick (flying car) and N5156H from End of the Spear and the RV-10s built in Ecuador - were going to be the big news. But what has just happened in Ecuador is another piece of the 'Ministry Aviation' news that may develop into significance in the near future.

The Bible says that "Faith is the substance of things hoped for, the evidence of things not seen". It takes a bit of spiritual insight to recognize God's intervention in the past. But it takes faith to take action in obedience to God's leading before God makes all of His ways and means clear to us. We are in the middle of a leap of Faith in which several God followers have shown up and where God has just intervened once again.

A LITTLE BIT OF BACKGROUND:

Ministry aviation has historically depended on 'off the shelf' equipment which has always been expensive and has become more and more complicated to operate and maintain. In keeping with the Itec concept of training and equipping indigenous God Followers to meet the physical and spiritual needs of their own people and their own region, we have been working on possible solutions to the major TRANSPORTATION OBSTACLE in frontier areas of the world, since our inception, 13 years ago.

We have worked on projects as diverse as modular aluminum molds for making fiberglass canoes, shaft motor propulsion systems for shallow water and have evaluated land vehicles that can be used to plow, haul cargo or serve as a low speed passenger bus. But the reality in many frontier areas of the world is that using the 'Sky-Highway' is the most practical way to get from one place to another where population densities are low and it costs more to build and maintain even a simple road than it does to build and maintain a small fleet of aircraft that don't need roads.

Hanging in our Itec hangar is an early prototype of a small modular aircraft that proved to be very easy to build and maintain but too complicated to fly. Our next attempt to use the 'Sky-way' with an affordable and easy to use aircraft was much more successful - the Powered Parachute that Tementa made famous in the documentary "Beyond the Gates of Splendor".

It has become clear to me that no single machine is ever going to solve the transportation needs in frontier areas whether the end user is ministry oriented or secular humanitarian, or government or military. What is needed is a well thought out progression of machines that can work together in a manner similar to the system the major airlines have developed. They use small turbo-prop planes to feed regional jets that feed short haul 757s that feed long range 'jumbo jets'.

The development of the Kodiak, a 9 passenger 'clean sheet' design has received a great deal of attention in the last few years. I have followed its development with great interest and have flown it. The Kodiak is an impressive plane, and the vision and fortitude it has taken to get it through FAA certification and into limited production is amazing. Unfortunately, contrary to proliferating expectations, the Kodiak is not the answer. It may be part of the answer, but no single machine is going to be 'THE ANSWER'.

Three steps are needed to tie 'unreached' peoples and places to the rest of our planet. I am convinced that:

Step 1. is a multi medium vehicle that combines car, boat and aircraft capabilities. This vehicle needs to be affordable, easy to use and so easy to operate that it is largely intuitive. That is a huge order to fill, but I believe it is

possible given sufficient talent, time and financing. Apparently Popular Mechanics and the Experimental Aviation Association think we are close to a workable solution on this first level machine.

Step 2. is a utility aircraft that can go into and get out of the shortest, roughest airstrips imaginable while costing less than half of what an 'off the shelf' plane of similar capabilities costs. It must be easy enough to fly that the operator does not need to be a professional pilot. That is where we came up with the "Preacher Pilot" moniker. This 'link' in the transportation chain also needs to be simple enough in design that it can easily be maintained and repaired without requiring complex equipment or specialized professional mechanics. It also needs to be capable of operating on floats for use in areas where landing strips are difficult to build and where people tend to live on the banks of navigable waterways.

Step 3. is a larger capacity aircraft that can carry larger numbers of passengers and larger cargo packages. The Kodiak would fit this category. It would most likely be flown by a professional pilot and would be maintained by a professional maintenance expert. It needs to be able to work out of unimproved airstrips and needs to have sufficient power to operate on floats.

Step one needs to be capable of being operated by anyone who is responsible with a limited amount of training (think days or weeks not years); and it needs to be affordable to operate and maintain by a local community. At this level the transportation legs are of limited length and limited load. The multi-medium vehicle from step one would feed passengers and cargo to the faster "Preacher Pilot" plane from step #2 for longer distances and the Step 2 aircraft would feed the much larger and faster aircraft in Step #3 that would, where needed, feed passengers and cargo to commercial air-carriers and airlines.

THE CHALLENGE:

In the very early baby steps of missionary aviation, missionaries tried to become aviators. The result was short life spans for both operators and aircraft. It was determined that it was more practical for aviators to become missionaries. The early missionary aviation pioneers decided that frontier missionary air transportation needed to be left in the hands of professionals. My Dad, Nate was one of those pilot / mechanic pioneers.

The concept of reliance on a "professional elite" in ministry aviation fit well with a similar concept in areas of spiritual leadership and healthcare. There is nothing wrong with technical, spiritual and physical paternalism as long as it is understood to be a short-lived stage of normal development. Unfortunately, missions in the twentieth century seldom grew out of the "paternalism" stage of ministry and rarely progressed to the "partnership" and the "participation" stages of Biblical ministry.

Today, ministry aviation, is largely still locked into the "only we can do it, unless you become enough like us so that you can do it too" mindset. I am quite sure that very few people who have raised, given and spent sixty some million dollars of 'Kingdom Funds' on the development of the Kodiak have worried over the economics of evacuating a single critically ill patient out of an isolated community. Attention has focused on the aircraft's capability to operate from that small community's airstrip. A Kodiak could evacuate a patient from the little community where I lived with the Waodani a few years ago. But at about 45 gallons per hour of Jet-A fuel costing \$5 per gallon, such an evacuation in a million dollar or million and a half dollar plane would cost somewhere in the range of \$500 to \$600 without including the cost of the professional pilots and mechanics. Based on the current "opportunity cost of funds" and the existing real cost of supporting missionary personnel, I think I could defend a real cost of evacuating a patient from Nemompade to Shell at about \$1,000.

I know it seems crass to consider 'cost' when one of God's children's lives is on the line. Being in ministry, however, does not exempt us from a responsibility to be good stewards of Kingdom resources.

Let's figure the cost of meeting that same need using a "Preacher Pilot" plane like the ones we have started building in Ecuador (which could be built in almost any small shop anywhere in the world); using real certified aircraft engines, propellers and high tech instruments and navigation equipment.

First of all, the cost of the "Preacher Pilot" aircraft would be about one thirteenth to one fifteenth the cost. The "Preacher Pilot Plane" engine burns about one fifth as much fuel as a Kodiak but it is significantly slower so it would burn about one third the amount of fuel. The biggest difference in my mind is that no professional pilot

would be needed. It is entirely within the realm of possibility that a member of the tribe could be flying the "Preacher Pilot Plane" and would be able to add spiritual ministry for the patient and loved ones to what would otherwise be just an air-taxi flight for all practical purposes.

I would guess that a comparative cost for such an evacuation in an 'appropriate aircraft' would be somewhere between \$100 and \$200 dollars. It would not require a large infrastructure or high level of subsidy. What it will need is a miracle, to become a reality.

THE MIRACLE

The Kodiak project is breaking long standing traditions of waiting for a commercial aviation industry to meet ministry aviation needs. An old and dear friend has been a driving force in this project. I have close friends who have financially given to this project. I hope that it survives the significant hurdles that it still faces. But the reality, as I see it, is that the Kodiak project, if it is successful, will unintentionally perpetuate the dependency of frontier peoples on the church in the developed world. This incredible plane is not a stand alone answer to ministry transportation needs. It was not designed to stand alone. It is not affordable to people in frontier areas. It cannot be flown or maintained by a preacher, or doctor or evangelist. It can carry lots of passengers and cargo but it cannot fly affordably unless most of those seats and cargo space are needed for most of its flights. Unless we develop the other pieces of the system the Kodiak depends on, it will fail in its intended ministry aviation role.

Chrysler Motors is in bankruptcy because it does not have a line of small, fuel efficient cars to fill out its otherwise popular and innovative line of vehicles. That is why it is trying to merge with Fiat. It needs Fiat if it is going to survive. The Kodiak might be a commercial success without the development of aircraft in intermediate steps, but I am convinced that it cannot meet the need in its primary 'ministry' market without the development of new generation 'feeder' aircraft. I am committed to trying to fill in the missing pieces in ministry aviation. We have made good progress but we have a ways to go.

In comparison to the design, development and production of a large, turbine powered, certified aircraft like the Kodiak, the development and production of the two 'feeder aircraft' needed in ministry aviation are small projects. But we North Americans are a 'faddish' group of people. As long as the Kodiak is on center stage it is proving to be very difficult to get anyone to support the development of these two aircraft to support the intended role of the Kodiak. So, we have been praying for miracles.

The first miracle came when a businessman called me and offered to fund the construction of one "Preacher Pilot" plane (see pictures attached). Another piece of the puzzle was the slowdown in demand for the RV-10 aircraft that we have been building in Ecuador (business as ministry) for the last four years. Galo and Jesse, who run our airplane building project on a 'self-sustaining' basis were willing to build several of these planes at cost. That means that they have given up paychecks for almost a year.

We have now built one two seater and one four seater "Preacher Pilot Plane" and are finishing up the second four seater. The miracle we have been praying for is that someone in the Ecuadorian government would take an interest in what we are trying to do and would help us with the looong permitting process so we can test-fly these aircraft and put at least one of them to use down there. Actually we were praying for an even bigger miracle. What we really need and want isn't just a permit to test fly these airplanes in the jungles where we are building them. What we really want and need and have been hoping for, working for and praying for is that the Ecuadorian government would certify these aircraft for use in the Ecuadorian jungle and would buy some for government humanitarian use.

The Ecuadorian government recently bought two Cessna aircraft for use in the jungle. Those two planes, just a bit larger than two of our four-seater bush planes cost over a million dollars. For less than that, we could set up a first class assembly facility and could produce seven aircraft. But who, in a relatively unstable political climate would put their neck on the line to support a project to build aircraft in the Ecuadorian jungles?

Well, the obvious answer would be the director of the Ecuadorian Civil Aviation. But, if we are praying for miracles, why not just pray for the 'Big One'; why not ask for the president of the country? The director of Aviacion Civil can be trumped by any number of other government officials, but no one trumps the President. I'm sorry to admit that I did not have enough faith to ask for the president specifically. I just prayed for 'someone' who could champion our cause and help us put national God Followers in the pilot's seat of ministry aircraft in Ecuador and

then Peru, Colombia, Bolivia, Brazil...

Well, God has given us an opening miracle. It would be smarter of me to have waited to tell you until we actually had an offer of support from the President but I decided to let you know now. I have been thinking a good bit about my heroes of the faith recently. Shadrach, Meshach and Abed-nego in Daniel 3 really impress me. When the king threatened to execute them in a fiery furnace they humbly but steadfastly declared their confidence that God could deliver them out of the king's hands. But they added, that even if God chose not to deliver them, they would still worship only Him.

So let me stand with those three young men and declare, "I don't know what God finally has planned for our projects to complete the design of the Maverick (flying car) and get it into production. And I don't know how God might supply what we still need to develop a market for our SA-STOL (South America - Short Take-Off and Landing) "Preacher Pilot Plane". And I don't know who might join with us to buy a Christian Camp Facility to use as a regional training center where we could train lay pilots and lay dental techs and medical technicians and mechanics and optometry techs. And I don't know how we are going to get the permits we need to continue the development of a "Preacher Pilot Plane" that can be flown by national pastors and doctors and evangelists and school administrators."

This I do know. We have been very careful to try to join God in what He is doing rather than taking on projects we want to do for Him. I know God is able. The fact that the president of Ecuador visited Shell Mera and took time out of his busy schedule to check out our first real "Preacher Pilot Plane" and took time to talk to Galo about it, is proof that He can do the rest too. Thanks to those of you who helped us build the first RV-10, and to our partner who helped fund this plane that the president is examining in the pictures below. And thank those of you who give to support Itec and to those who have been our partners in design and don't let me forget those who have been our cheer-leaders.

I really do not know what will come of all of this. But I wanted to give God credit and to thank those of you who have helped make what we are doing possible - before we know the rest of the story. I also want to be sure that I invite any of you who want to invest more of yourselves in what we are doing to please do so. I am committed to letting God be Jehovah Jireh - our provider. But I am also committed to getting better at inviting His followers to join us in what God has called us to do. Consider this your invitation to get involved, get more involved or to invite others to get involved in what we are doing to put more and more God Followers in the drivers seat to carry out Christ's commission to more and more people in hard to get to places.

NOW LETS LOOK AT THE PICTURES

Galo is in the striped shirt and the President is in the white square tail shirt.

The lettering on the side of the plane is a play on words. "Bien Hecho" means "well done" or "way to go". It also means "well built". So you can read the slogan as "Well built- in Ecuador", or "Way to go - Ecuador" Remember, the planes that we are building there in Ecuador are the first planes that have ever been built as an enterprise, in the history of the country.

The slogan on the tail is quite obvious. It uses the colors of the Ecuadorian flag and says "Ecuador first" or "Ecuador is number one". The man with the pilots epaulets on his shoulders is Galo's uncle. Henry and I have been friends since we were kids. After flying commercially for several years, Henry joined Mission Aviation Fellowship. He now runs the only flight school in the jungles. He has offered to help us begin a training program if we can find a partner who is willing to invest about \$45,000 (half the cost of one of these planes) so that we can put it into service right there in Ecuador. The plane would be used for training and would be used to make flights in support of Waodani, Quechua and Shuar believer's efforts to care for the physical and spiritual needs of their own people. Evan Bensler, our staff medical doctor, who we hope will end up in Ecuador is working on his pilot's license and is getting pretty close. Ministry in the jungle and to jungle people depends heavily on air transportation.

We have designed and built a mold for a large cargo pod that will hang under the fuselage. The pod will make it easy and safe to carry lots of cargo and supplies in the plane without danger of injuring passengers in the event of a forced landing. (The pod was not installed during the president's visit)

In test flying the two seat version of this plane, I was able to land over 50 or 60 foot trees and stop in less than 300 feet, the length of a football field. Amazing. This plane will go into and out of any place that could be called an airstrip.

It is our hope to be able to open an international training center Near Shell. A SA-STOL bush plane would be the perfect "vehicle" to move medical, dental, optical, maintenance and evangelistic teams around the jungles. Can you imagine how excited my Dad must be at the prospect that what God called him to do as a North American pilot flying a North American plane sixty years ago, could now be done by a Waodani tribesman flying a plane he helped built just down the road from our old house that still stands along the runway there in Shell?

(Special thanks to Chris Heintz who designed this plane and to his son Sebastien and family who have helped make parts and pieces affordably available to us)

And, of course, thanks above all else to God for making each of you part of these projects in different ways, and for giving us employ in a small corner of His amazing 'work shop'.

For the Itec team,

Steve Saint