

# FLIGHT LOG →

FALL 2010

NEWSLETTER

Vol. 16 No. 4

FOR THE FRIENDS OF ADVENTIST WORLD AVIATION

## Building the Kingdom from the Ground Up!



by Jay Ketelsen

**F**OR OVER 60 YEARS, MONTEREY BAY Academy (MBA) has been known as the place “Where Land and Sea Unite to Inspire.” And now we need to add “and Air” to that slogan.

The end of the 2009-10 school year found the second group of MBA students completing our new Ground School program. After a nearly 20-year lapse in aviation-related education, MBA reinstated ground school in

the curriculum for the 2008-09 school year. This took a lot of work, study, and a huge dose of enthusiasm. It is a passion to give our young people yet another skill with which to broaden their ability to serve God and man.

*(Continued on page 10)*





Don Starlin,  
President

# Young People and Kingdom Building

THUMBING THROUGH THE PAGES OF THIS *FLIGHT Log*, you may notice a common theme—young people/Kingdom building. This is no accident.

*To all who received Him, to those who believed in His name, He gave the right to become children of God.* . . John 1:12 NIV

*How great is the love the Father has lavished on us, that we should be called children of God! And that is what we are!*

I John 3:1, NIV

*Then Jesus called the children over to Him and said to the disciples, 'Let the little children come to me! Never send them away! For the Kingdom of God belongs to men who have hearts as trusting as these little children's. And anyone who doesn't have their kind of faith will never get within the Kingdom's gates.*

Luke 18:16-17, TLB

And what do we need that child-like faith for?

*Then Jesus came to them and said, "All authority in heaven and on earth has been given to me. Therefore go and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, and teaching them to obey everything I have commanded you. And surely I am with you always, to the very end of the age."*

Matthew 28:18-20, NIV

Making disciples of all nations requires child-like faith that God is who He says He is, and will do what He says He will do. He asks us to join Him in building His Kingdom in the midst of enemy occupied territory, and that takes faith!

Of the 2.74 billion people who have never heard the above good news, an estimated 800

million will only hear it through aviation-enabled missionaries! This requires an assault force of spirit-filled technically competent and committed people the likes of which the world has yet to see. They are out there! They simply need to be disciplined, sent and sustained.

AWA has standing requests for air support in about a dozen locations on planet earth. We've been praying the Lord of the harvest for laborers.

Over the past few weeks I've listened as three passionate spirit-filled young people individually shared how they returned to school to equip themselves for service in mission aviation, but they have not yet found a way to get to the mission field. This is not a new phenomenon. For the past 15 years I've heard the same story. God is sending us the human resources, but we lack the facilities and staff to train, equip, send and support them. Working out of unheated T-hangars and borrowed office space with a largely volunteer staff simply isn't enough to get the job done. This is a God-sized mandate and it will take a commensurate investment to accomplish.


AWA proposed and Andrews University, in principle, has agreed to lease land for the construction of a mission aviation discipling/aircraft refurbishing and launching facility where willing missionaries-in-training can practice what they are learning in school on aircraft they will take to the field. The concept is proven. AWA's projects in Alaska, Guyana and the Philippines were all started as the result of



Jud Wickwire and Keith Swartz work on AWA's Pathfinder plane in the hot Guyana sun.

such a program over a decade ago.

Aviation may seem expensive, but last year AWA touched 25,000 souls for the Kingdom in high-impact ways at a total cost of only \$25 per person. To meet the demands for air support of frontier missions, AWA needs approximately 100 personnel in the coming years and we have no way to equip them for service.

If you are a steward of divinely entrusted resources that could be invested in such a facility, the return on investment would be incalculable. If God has equipped you with the gift of prayer, may I implore you to join us in asking God to lead us to those who could make this vision a reality? There is no better time than the present to join God where He is already working to build His Kingdom. 

**Cover (left to right)** Dan Dornseif instructs students in preflighting; 2004-05 Student Missionary, Todd Anderson, refuels the plane for the next leg of flight in the Philippines; Jud Wickwire ministers to a medical patient.

## FLIGHT LOG ➔

Vol. 16 No. 4  
FALL 2010

is published by **Adventist World Aviation** and sent free of charge to interested subscribers. Send all inquiries or change of address notices to:

### Adventist World Aviation

P. O. Box 251, Berrien Springs, MI 49103  
Phone: (269) 473-0135  
Fax: (269) 471-4049  
E-mail: [info@flyawa.org](mailto:info@flyawa.org)  
Website: [www.flyawa.org](http://www.flyawa.org)

**In Canada** (please send donations to):  
Wings for Humanity Foundation  
1281 Highway 33 East  
Kelowna, B.C. V1P 1M1  
85432 2922 RR0001

**President:** Donald B. Starlin

**Newsletter Layout and Design:**  
Margie Mitchell

**Copy Editor:** Michelle Candy  
Fletcher Grahn

**Board of Directors:** Tom Chapman (Chair),  
Paul Karmy, Mike Porter, Donald Starlin

### Mission Statement:

*Adventist World Aviation exists to provide aviation and communications support to those serving the physical, mental, and spiritual needs of the unreached and forgotten peoples of the earth.*

### Adventist World Aviation:

*is a 501(c)3 nonprofit missionary-sending agency. Funded by private contributions, AWA enables missionaries to reach the unreached around the world.*



# Making Disciples

by Greg VanFossen

**C**HRISTAL AND I SPENT NEARLY THREE MONTHS this summer participating in Adventist Frontier Missions' Summer Institute of Frontier Missions (SIFM) training. This appears to be a very valuable experience in preparation for foreign missions. The true test will come when we reach the field, but the information gained from experienced missionaries is without a doubt the best one can get to guide or correct one's expectations.

One issue that has been brought into sharp focus, relative to planting a church in a foreign culture, is that of communicating the gospel accurately across cultural barriers. A couple of missionaries have shared their experience of using the "standard" approach to giving Bible studies. They observed a relatively large number of conversions followed by a similarly large "back-sliding" in times of their own absence or during crisis. This led to much frustration after having invested a significant amount of work. Why, after receiving the good news, would people return to inferior practices? Isn't God stronger than the devil? Didn't they really accept Jesus as their Savior? Perhaps they didn't "truly" accept the new religion. Perhaps the new beliefs were simply added to ones they already held (syncretism). The living God has expressed that He wants no other gods to be more important to us than Him—wasn't that made clear?

During SIFM training sessions we had the pleasure of meeting a couple from Papua New Guinea. The husband had just completed a theology course and is preparing to return to his own country as a missionary. In our conversations with this couple, we learned many things about them and their culture. We learned that when someone becomes ill, everyone in their family helps them till they get back on their feet. We also learned that animism is alive and active, that witch doctors are still sought for healing, and that some boys use magic to make themselves invisible so they can cause problems. We also learned of the difficulties that arise

when anyone becomes a Christian. When a person converts from animism to Christianity, the biological family rejects him or her. That person is essentially cut off from his or her social support network.

This couple told us they had to walk two hours to get to church each Sabbath. Many in a given church may have to make such long journeys. This causes challenges in maintaining community in the body of Christ. These people certainly need our prayers. The simple answer might be to move the Christians all into the same

**Think about the approach Jesus took. Consider that in preparation for His ministry Jesus spent 30 years learning the culture.**


through a given culture's worldview. Based on his experience, and those of the missionaries mentioned earlier, it appears that this is really the only effective way to share the gospel. Think about the approach Jesus took. Consider that in preparation for His ministry Jesus spent 30 years learning the culture. Are you and I willing to spend even a fraction of that time getting to know the people we are trying to reach with the gospel?

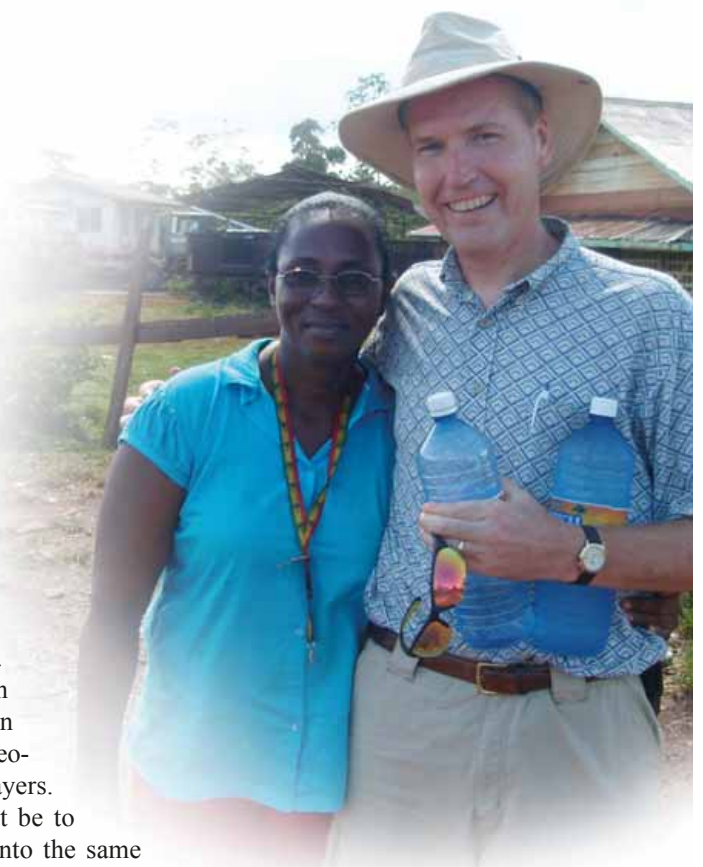
Without question Jesus is the best teacher who walked the earth. He healed the sick, raised the dead and taught. These actions drew attention to what He was doing. His teaching incorporated parables drawn from the culture and the environment. He used redemptive analogies when He said, "The

village, but how effective would that be in spreading the good news?

Don Richardson, in his book *Peace Child*, describes an experience that revealed the importance of communicating the gospel

kingdom of heaven is like . . . ." However, looking at the big picture, discipleship was clearly the main method He used to share what God is like. Paul also used discipleship.

Discipleship has been demonstrated as a primary method of sharing the gospel because the Word is more than just print on a page or vibrations coming to our ears. It is becoming obvious that the gospel must be lived in the presence of the target population in order for its message to be communicated. John wrote about the Word becoming flesh and dwelling among us. Perhaps the only effective way we can expect to share the gospel is by letting the Word live in us while we dwell with foreigners—foreigners to the heavenly country, here and abroad. 



## GUYANA PROJECT



Missionaries  
-in-Training  
Greg, Chrystal,  
Brandon, and Serena  
VanFossen

VanFossen Launching Goal \$101,645

**\$45,178 Still Needed**

10% 30% 50% 70% 90%

**\$3,120 Still Needed**

VanFossen Monthly Support \$4,829

# PHILIPPINES

## Answering the Call to Build the Kingdom!

### (Introducing Missionary-in-Training: Fletcher Grahn)

by Fletcher Grahn

**T**HE PAST FEW WEEKS, I HAVE WITNESSED THE best and worst of humanity. I have seen a family being torn apart at the seams by a self-centered, power hungry, completely indifferent world, and I have seen children of our God wrapping their arms around this family, doing all, and sacrificing what they can, to lift this family up and keep the seams from unraveling amidst a mind-numbing tempest. Scenes like this play out across the globe day after day. From continent to continent, country to country, neighborhood to neighborhood and home to home, the evil that holds this world in its terrible grip can be seen ripping apart the lives of millions, while the small army of our King stands as a light amid the growing darkness. They do all they can to bring hope to those who know only despair, to bring life to many places where death reigns supreme and to share the news of a loving Savior with those enslaved by the enemy of humanity.

One need not travel far to see the devastation sin has brought upon this world.

Look in the morning paper, the news on TV, radio or the internet. People slain, diseases run rampant, homes lost or taken away, disasters both man-made and natural are so commonplace we hardly blink anymore. The only thing that astounds people these days, is when someone defies the norm and goes out of their way to do something kind for someone in need. People shout and scream for protection of the environment but complain about the homeless shelter proposed for construction across the street. "Be conscientious" they say, but only when it doesn't become an inconvenience to me or my family. Are any of us 'free of blood' in this? Can any of us stand without stain before the tribunal of Heaven? I know I can't.

For most of my life, I lived for the moment, the thrill...in short I lived for me and me alone! When recovering from cancer treatments in 2001, it occurred to me that I couldn't remember ever having done anything for anyone without my self-interest being of paramount concern. It was a sobering

and uncomfortable realization but in the end, it was not enough to change the selfish life I had been leading. It wasn't until the early part of 2006 that the work God had been doing in my heart my entire life would start to bear fruit. It was then, God brought back that past thought of never doing anything for anyone and set it side-by-side with the incomprehensible images and the atrocities going on in Darfur, Sudan. When I began to complain to myself about others not doing anything to help these devastated people, it occurred to me that sitting there in my chair I wasn't doing anything for them either. Something changed in me that day. I didn't immediately become a Christian, but for the first time, it seemed I actually cared about someone else more than myself, enough to actually get up out of my chair and do something about it. And I did!

I started by contacting the International Red Cross in Switzerland but I didn't speak French and wasn't sure I could, so I kept on looking. Shortly thereafter, in the fall of 2006, several events occurred in rapid succession which led me to surrender my life to Jesus. Shortly after coming back to the Lord, He led me to Adventist World Aviation, an organization that I saw as God's answer to the hunger to help others which He had planted in my heart only a few months before. It was an opportunity to reach out to



**Left:** Fletcher works with Jeff Bell on AWA's planes in Wisconsin. **Opposite page, bottom:** One of the people groups, a Batangan subtribe in Occidental Mindoro, Philippines.



Summer 2009: Fletcher volunteered to coordinate the team for EAA AirVenture and the Pathfinder Camporee—coordinating 15-40 volunteers a day. He helped set up booths, tents, camp and even cooked an evening meal. At Camporee the dental display at the N2019G station (this photo) needed to be assembled and broken down each day.



those around the world who were in such need of love. I wanted to go to the Sudan but was instead asked if I wouldn't fill a need in the Island nation of the Philippines. In the past, this would probably have been a shift I would have been too self-centered to accept; it didn't meet my own personal wishes or vision. But I had committed to surrendering 'everything' to Jesus and whatever He asked, I wanted to say "yes!" So I agreed to go wherever they saw the need. If the need was in the Philippines, that's where I wanted to be.

Today, after two years of intense training in Andrews University's Aviation Maintenance

Program, I have all the certifications required to perform maintenance on any U.S. registered aircraft. There is much to do here in the States in AWA, but the need for an Aviation Maintenance Technician in the Philippines has never been greater, and our top objective is to get me there as soon as possible. Every step towards deployment has been met with resistance from the enemy. He has fought tooth and nail to try to stop, disrupt, discourage or create mayhem for any who are involved in the effort to reach the souls for our Savior on the over 7000 islands of the Philippines. Satan believes this is his territory. Many spend

their lives placating the spirits (fallen angels) who hate any attempt to loosen their grip on these poor, suffering people. Jesus warned of this, yet He promised victory, even if it came at a great price. For me, it took a long time in my life to weigh the costs of helping others. I can't pay the great price our Savior paid, but He has placed in my heart a desire to pay whatever price He asks. And this is only possible because of the grace He has poured upon such a wretch as me. How can I not want to share the news of such a wonderful gift? If you feel the same, please contact Adventist World Aviation to request more information about how you can help to make an impact for God's Kingdom in some of the most remote places on earth. God Bless! AWA



PHILIPPINE PROJECT				
		Missionary-in-Training Fletcher Grahm		
Grahm Launching Goal \$50,875				
<div></div>		\$37,108 Still Needed		
10%	30%	50%	70%	90%
<div></div>		\$2,800 Still Needed		
Grahm Monthly Goal \$3,772				



# Discipling a New Generation!



Arau plateau

by Jacob Wickwire (age 11)

“**W**HO’S TURN IS IT TO GO FLYING?”  
Dad asked.

“Me!” I said with building excitement.

“You want to come with me?” he asked.

“Absolutely!” I answered.

“Well, run and grab your stuff.”

When we go out on a trip, we never know for sure how long we will be gone. Weather, other emer-

gency medical evacuations, and airplane maintenance all have the potential to make a simple flight into a many-day excursion.

I hurried to the shelf grabbing things one by one. Then I ran to my clothes and threw in a couple of shirts and pants. I ran downstairs to the waiting ambulance and off we went. When we got to the bright yellow Pathfinder airplane, I threw my stuff in the plane, and climbed in. Dad and I fastened our seatbelts. Who knew back in 1999 that 465 Pathfinders helping rebuild this airplane for service in Guyana would make such a difference in so many lives! God was leading AWA to plan this project before I was even born!

“November eight one seven zero eight departing Mabaruma at one zero hours, destination Arau,” announced Dad on the radio.

“Seven zero eight cleared for take off from Mabaruma,” responded air traffic control.

“Roger, seven zero eight rolling,” said my dad as we taxied down the runway.

“Roger that seven zero eight,” acknowledged air traffic control.

We accelerated down the runway, and then up, up and away we soared over our home as we turned south and climbed

higher and higher. Soon all we could see was a blanket of green beneath us. All around were clouds and blue skies and I felt so free almost touching the clouds - weightless over the Earth.

“Seven zero eight departing Ogle boundary,” Dad announced.

“Roger, seven zero eight. Ok have a good day.”

“Roger that,” said Dad.

As we flew along, suddenly mountains started to erupt from the ground; some tall, some round, and some just little bumps on the ground. The western interior terrain is very different from where we live not far from the coast.

“Seven zero eight descending for Arau,” Dad reported.

“Roger seven zero eight,” replied air traffic control.



GUYANA PROJECT						
			Jud, Karen, Jacob, and Zachary Wickwire			
Wickwire Monthly Goal \$4,900 Canadian						
Goal Reached This Quarter - Thank You!						
10%	30%	50%	70%	90%		
U.S. contributors use enclosed envelope. Canadian contributors use Canadian address on page 2.						



Our mission was to land and pick up a young man with a broken leg (compound tib/fib fracture) that needed special attention. I watched the altimeter unwind. Five thousand...four thousand.... After a minute or two I saw the runway in the distance and Dad continued the descent.

We set up for the approach into the dirt runway. "Squeak" went the wheels as we landed. The patient was waiting for our arrival. Soon we had him in the Pathfinder airplane and ready to go.

"Seven zero eight departing Arau," Dad called on the radio.

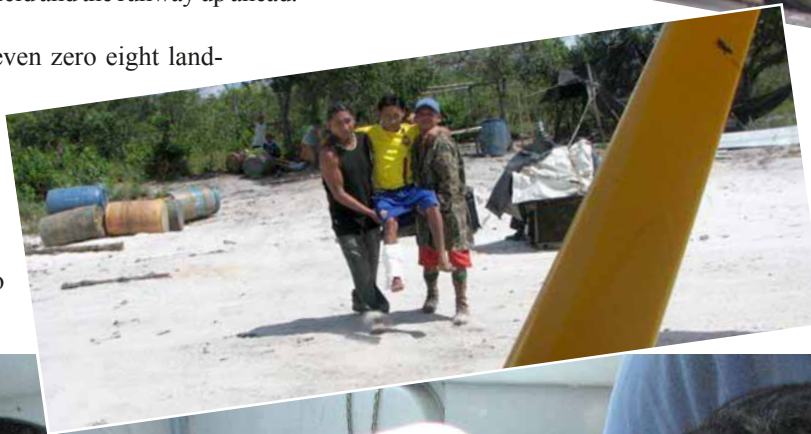
"Roger seven zero eight," responded air traffic control. We turned around and accelerated down the runway, a cloud of dust rising behind us. We climbed to altitude and passed all the mountains. In about an hour we saw Ogle field and the runway up ahead.

"November eight one seven zero eight landing Georgetown," Dad announced. We landed and helped the patient out of the airplane.

Every time I think about that day, I wish I could do it again. *AWA*



*Waiting for the plane.*



Friends carry a patient to the plane.

The patient made comfortable for the flight to Georgetown.





# GUYANA

## Volunteer Maintenance Enables Med-evacs!

Keith Swartz, Len Sherwood, and Jud Wickwire work on the Cessna 206.

by Bill and Laura LaBore

THE CLATTERING OF TOOLS COULD BE HEARD AS JUD, Len, Keith and Laura worked on replacing the engine of the Cessna 206. The noise was broken by the ringing of Jud's cell phone. It was a call for a Med-evac. Laura went and changed into her flight uniform, did the preflight on the 182, the inspection of which had been finished earlier in the week, and took off. The patient she picked up was a young man who had "possible appendicitis." She had him lie on the floor of the airplane, gave the nurse riding beside him safety instructions and took off for town.

While in the air, she called ahead for the ambulance to meet them at the airstrip upon landing. Unfortunately, there was no ambulance when they landed, and they had to wait a very frustrating 20 minutes for it to arrive. While she was waiting, a call came in for another Med-evac from a village only about 30 minutes away by plane. After the ambulance arrived, they loaded the patient, who was yelling and crying in pain, then took off down the road. Laura buckled herself back into the plane, called the tower for a clearance, and took off over the brown Atlantic Ocean heading along the coast toward the village that had just called for help.

When she landed, a swarm of people came out to meet her. A truck pulled up with a patient inside lying on a mattress. The woman




had given birth that morning at 10:00 to a little baby boy, but her placenta had not delivered fully and she was bleeding profusely. Laura had flown in with a nurse who quickly went to work at setting up another IV line and getting a blood expander going. The patient kept slipping into unconsciousness. When she was revived, she didn't recognize anyone around her, even though they were her relatives. The patient lay in the plane for about 20 minutes while the nurse worked on stabilizing her, before departure.

The ambulance was waiting this time, much to everyone's relief. The patient was now a bit revived and recognized the nurse who was working on her. They loaded her and the nurse into the ambulance and dashed away to the public hospital.

The sun was now getting lower on the horizon and there would be no time for

Laura to make the flight home, which meant she would have to spend the night in Georgetown and return the next morning.

As Laura crawled into bed that night, she thought about how grateful she was to be part of the team that helped to save not only this woman's life, but also the life of the young man. Bill, who had to stay at home minding the kids that night, also had his part to play. Jud, Karen, Keith, and Len were also part of the team, because without them, we would not have two working airplanes to fly these missions! Everyone back home supporting us financially or praying for us is also part of the team, and for that we thank you! The people here thank you too! 



The appendicitis patient with the nurse.

### GUYANA PROJECT



Bill, Laura, Danielle, and Micah LaBore

LaBore Monthly Goal \$3,625

Goal Reached This Quarter - Thank You!

10% 30% 50% 70% 90%

Monthly Sponsorship-10 Villages\* Goal \$2,500

\$894 Still Needed

10% 30% 50% 70% 90%

\*\$250 monthly provides air and communication service to Bible workers in one of the unreachable jungle villages.





The mother in the truck, the baby (above), and (below) the nurse prepares the mother for the flight to the hospital.







## Building the Kingdom from the Ground Up!

Continued from cover

MBA desires to engage students with challenging studies that can immediately be put into practice. So, thanks to the tireless effort of Steve Syvertson, a local businessman, aviator and mission-minded member of our MBA Church, our young people now have another avenue of service and opportunity to explore.

### How it Happened

Steve views obstacles as nothing more than opportunities

flight-training program.

Dreams are fine, but worthless unless you do something with them. So, Steve introduced the MBA administrative team to the mission of Adventist World Aviation and what AWA is doing around the world and in some Adventist academies in North America. Then he networked with MBA alumni aviators and our local pastor, who flew in Alaska for 20 years. A concept gelled, and soon Steve was making a presentation to our school board, demonstrating the practicality of providing

an aviation course of study at no cost to MBA and *very minimal cost* to the students wishing to participate.

What we learned is that we already had all the elements needed to rekindle an aviation program.

We simply needed to learn how to identify and use the assets to our advantage. 1) Steve was qualified to teach ground school and he volunteered to do so. 2) MBA has a new, state-of-the-art computer lab/classroom that is available in the evenings. 3) Gold Seal Online Flight Training (as well as several other sites) offers a free online ground school course with an upgraded package for less than \$50.00. 4) MBA has many professional pilots in our alumni ranks and local churches who are quite eager to volunteer their time in support of the program.

### How it Works

Steve Syvertson teaches our MBA Ground School class two evenings per week, one semester each school year. This class incorporates online course work and testing, field trips to local air tech shows, a "Morning in the Tower" at Monterey International Airport as guests of the FAA, and the opportunity to examine static aircraft when volunteers fly them in for the students to study. When MBA students complete the ground school course, they are prepared to take their FAA written exam. To date, all students taking the exam have passed on their first attempt.

### What About Flying?

For the time-being due to the prohibitively high cost of insurance, MBA cannot use its own airstrip for flight training, nor endorse any flight training that involves actual flying. If a student wishes to pursue actual flight training beyond the fundamentals of ground school, it is up to the student and his/her parent or guardian to locate and find the flight school that best meets his/her needs.

Several of the MBA students who have completed the ground school at MBA are presently using the services of a local flight training center at KWVI (Watsonville). There are several such training facilities located at KWVI, one of which has a work-



**Above:** The new Cheetah sets down in California after a 28 hour trip. **Right:** Volunteers: Pilot, Dave Hardinger (left) and student pilot, Jonathan Gregory, (right) flew the plane in from Wisconsin for AWA-CA Project Manager, Steve Syvertson (center). **Far Right:** Many people welcome the light sport class plane and the pilots to California.





ing airline pilot on staff who has a desire to “give back” to his community. This pilot volunteers his time as a flight instructor for no fee to local community students who qualify. Since he is an active South West Airlines pilot with a very busy schedule, his time is limited to three students per year.

### How We Measure Success

I am delighted to report that this fledgling program has been successful and is continuing to grow. Several students have chosen to attend MBA because an aviation course is offered in our curriculum.

Outside our MBA environment, Steve and I have introduced aviation to our local community as yet another tool to help keep urban youth focused on higher learning. There is a local group of Christians who are building a solid “after school/summer” youth tutoring program for high school-age students here in the neighboring town of Watsonville. Presently, they are offering math and computer classes at a local inter-denominational church. This tutoring program is really taking off and they are interested in incorporating aviation ground school this fall. Aviation is fun, but the really cool side from a teacher’s perspective is that it gets kids into physics, math and other practical disciplines as part of the experience. As the students explore these sciences after school with the help of Christian mentors, God only knows where this adventure might take them. Considering what has been achieved in two short years, I believe the aviation program at MBA has been quite successful, even overflowing to touch the lives of youth in the surrounding community as well.

### Volunteers - True Champions

Volunteers are the ones who help weave student’s dreams into reality. These are the committed dream weavers God has brought to us:



Rilla (Elmore) Eppling,  
MBA class of 84,  
Director of Aviation-Paramount Citrus  
AWA-CA Board Member, Chief Pilot


Hugh Seagreaves,  
MBA class of 71,  
Farmer’s Insurance Executive,  
Angel Flight Provider,  
President, Watsonville Antique Fly-In,  
AWA-CA Board member

Dan Dornsief, Southwest Airlines Pilot,  
United Flight Services CFI  
AWA-CA Board Member

Pastor Tom Garner  
AWA-CA Board Member

Steve Syvertson,  
Managing Partner, Oceanside Laundry  
Co-Owner, Midwest Sport Aviation  
MBA Ground School Instructor  
AWA-CA Project Manager

I’ve identified the day jobs of these fine folks, not that they need further recognition, but to encourage a new perspective of “time” for those of us who might think we are too busy in our careers and families to give any more of ourselves. These people are focused and get the job done, yet we need many more people to step up, not just at MBA, but wherever there is a need in God’s service. So if you are at a place in your life where you know it is time for you to make a difference, consider the inspiring work of Adventist World Aviation. AWA is a great platform from which to reach out and help lead our young people into that life service for which we all are called.

Many thanks are due these volunteers and to the MBA school board as well. It is their great focus and burden for the youth that leads them to broaden opportunities for students at MBA: opportunities that can help them explore new ways to serve Christ “Where Land and Sea, *and Air*, Unite to Inspire.” 





# AWA-PA

## Volunteers Build the Kingdom in Pennsylvania

by Eric Engen



**F**OR MANY YEARS, THE AIRPORT LIGHTING SYSTEM at the Blue Mountain Academy airport did not work. Any night operations had to be conducted by repositioning the airplane to the Reading or Allentown airports, paying tie-down fees and driving about 30 minutes each way either late at night or very early in the morning to be within the FAA definition of “night” flying.

At the June AWA-PA meeting, project chairman Rodney Becker shared some exciting news—we had enough funds on hand to begin the first phase of the airport improvement project at Blue Mountain Academy! Several very generous partners gave nearly \$12,000 in order to have the materials on hand to get this project started. But just as important as having the money on hand, several volunteered the labor to install the lighting system. All of these components came together, and by the end of June, the work began.

The first job was to clear out the old non-working lights. We also cleared away trees and underbrush that had grown up along the sides of the pond adjacent to the runway in order to give a wider margin of safety. The second step was to mark the location for the new lights. Doug Miller, a church member from Allentown, PA, had access to surveying equipment, and with his expertise, the new lighting locations were

marked in straight, 200-foot increments. He also found that the length of the runway was 100 feet shorter than we had thought all these years! Officially, it is 2,750 feet long.

The next step was to dig the 24-inch-deep trenches into which the new wiring would be laid. When the runway was first built, the ground had to be excavated, graded and backfilled in order to level out the landscape. We figured that since most of the earth was backfill, the digging would be easy. **WRONG!** The parts that weren’t full of shale rock were a hard, compacted, baked clay, similar to concrete! We went through seven different trenching machines before



the project was over. The digging took over two weeks to finish.

Then the wiring had to be laid in, with screenings (fine crushed grit) used to protect the wiring in places where the soil was extremely rocky. Volunteers laid over 8,000 feet of wire in the ground during this phase of the project. Then came the covering of the

trenches, and the wiring of the 46 lights that line the sides of the runway.

In addition to runway side-lighting, Earl Binder, our CFI and former FBO manager of the now-closed Kutztown airport, donated the rotating beacon and a windsock from his former airport. Allen Link, a local church member who works for the electric company, secured permission to use his company truck to set two telephone poles, one for the beacon and one for a windsock.

The only unfinished part of the project is the installation of strobes at the ends of the runway (known as Runway End Identifier Lights (REIL)),






Many volunteers have worked long hard hours in the hottest part of the summer to make this project happen. It was a blessing to work



alongside volunteers Rodney Becker, Jon Larabee, and Ernie Shobe these many hours. We are thankful also to everyone who has generously given of their time, money and labor to make this project a success.

Please pray for AWA-PA as the new school year begins – that God will bless our program with safety and success. 



Tom Sitler installs lights.

IN LOVING MEMORY OF	DONOR	IN LOVING MEMORY OF	DONOR
M. BETTY BAXTER	ERNEST & DOROTHY TOPPENBERG	EDITH MAPLES	DONALD & GWENDOLYN MAPLES
VINCENT BOELTER, JR.	EVELYN ROST	WILMA MAYOR	RAYMOND L. MAYOR
DONALD CARRIER, SR	DONALD D CARRIER	EMIL H MOLDRIK	EMIL & RUTH MOLDRIK
BEA HAMEL	HARRY & JOANNA SCHULTZ	RUBY O'DELL	ALLEN & ETHEL SIEGEL
DOROTHY FRASER	HARRY & JOANNA SCHULTZ	EDNA PATZER	JOHN & DEBRA MERKEL
DOROTHY FORD	PAUL & DORIS ARNOLD	ASHMORE W. PAYNE	IMOGENE A. PAYNE
THAD FRANKLIN	DOUGLAS & YVONNE FRANKLIN	CRYSTAL ROZZONI	HENRY & CARLICE CZARNECKI
BETH HABENICHT	LEONA G. RUNNING	OSEAS IMPERIO, SR.	ERNIE & ANNABELLE LOPEZ
DONALD S. HUNT	STEPHEN & CATHERINE KOVAL	SEVERO LOPEZ, SR.	ERNIE & ANNABELLE LOPEZ
MARGARITA INDALECIO	ESTHER E HARTUNG	PATRICIA N STAIR	MELISSA M STAIR
OLIVIA M. PAYNE	STEVE & MARY LOU PRIDE	JIM & LARRY STARLIN	CHARLENE A STARLIN
KARL NIELSEN	STEVE & MARY LOU PRIDE	JIM & LARRY STARLIN	HARRY & JOANNA SCHULTZ
JOHN M. LASWELL	HARRELL & FRANCES SHAYER	ELDON VORIES	BARBARA L. VORIES
ROBERT LITTLE, SR.	REGINOLD & JEANETTE EIGHME	STEVE VORIES	BARBARA L. VORIES

# MEMORIALS

# PHILIPPINES

## Building More Than Airplanes

by Ed Brennan

**A**FTER SEVERAL MONTHS OF WAITING, THE day finally arrived for a newly repaired wing and aileron to be installed. Since the rear spar was damaged by a close encounter with a tree, our airplane has been sitting on the ramp with only one wing. I had started calling it the “One Winged Wonder,” not a name to inspire confidence but one that motivated us to get it repaired. The repair team was from a Federal Aviation Administration-licensed repair facility here in the Philippines. We had shipped the wing to them in a crate via ship and truck to the Clark Free Trade Zone. After they made the necessary repairs, they sent it back, along with an installation team of great mechanics.

The first time I had ever helped to install a wing was while I was in training at our old facility in Blackwell, Oklahoma. I was quite surprised by the fact that only four bolts (large and made of hardened steel!) hold the wing on the airplane. The hard part was getting the wing into position so that the bolts could be put in place. Since the wing is about 17 feet long and about five feet wide, it is not so easy to handle. In Blackwell, we had a specially designed cradle that could actually be adjusted to fit the wing in place; here we were not so lucky.

The installation team arrived from Clark on Wednesday night and we were ready to get to work early Thursday morning. As we were talking about how we would go about the work, I started worrying that they would want to work on the Sabbath. I had gotten to know the maintenance chief from our conversations together, and he is a very nice guy. He had no knowledge of the Sabbath or of Adventists, so I thought maybe this was the

time to witness a little bit. As the conversation turned to working on the Sabbath, I explained to him our beliefs. He looked at me a little strangely but then said, “Well, yes, of course I can understand that.” We then discussed getting as much done through Friday and then finishing up Sunday morning. Their flight was on Sunday evening, and I prayed that all would be accomplished on time. Not only would this get the work done, but would demonstrate that following God’s Sabbath would prove a blessing, not a hindrance.

We got to work early Thursday morning and started building a couple of A-frame stands to hold the wings. The mechanics had the plan to use towels and other cushions on top of the stands to adjust the wing height to match the airplane. After a few hours the wing was in position and ready to slide into place. I was completely amazed at how well this was going so I said a quiet prayer of thanks. By lunch we had the wing, bolts and strut in place and the wing stands pulled to the side. Once again the airplane had two wings and was a beautiful sight to see. Of course we still had a lot of work to do; we needed to get all the connections in place, couple all the flight



Building a wing support frame.



Preparing to install the wing.

control cables, connect wires and fuel lines, install the aileron and flap and then start rigging everything. Over the next day and a half this is exactly what happened. By Friday afternoon almost everything was completed and the aileron and flap were installed. The crew had completed the aileron rigging and most of the flap rigging.


PHILIPPINES PROJECT				
				
Ed, Merilyn, and Felicia Brennan				
10%	30%	50%	70%	90%
\$950 Still Needed				
Brennan Monthly Support \$4,790				
Monthly People Group Sponsorship* \$22,500				
\$21,929 Still Needed				
10%	30%	50%	70%	90%
*\$750 monthly provides air and communication service to missionaries working in one of 30 people groups.				

PHILIPPINES PROJECT				
10%	30%	50%	70%	90%
\$100,119 Still Needed				
Mission Airbase Development \$350,000				

They just needed to finish the follow-up cable to the flap, but that would have to wait because we needed to prepare for the Sabbath.

The maintenance crew actually agreed to go to church with us on Sabbath and seemed to enjoy worshipping with us. They had a few questions, but all in all they seemed to feel at home. We spent Sabbath afternoon together and even went for a bike ride that evening. On Sunday morning though, it was time to get to work and finish the airplane.

We got started early and were able to finish the flap follow-up before noon time. This left them plenty of time to pack, eat lunch and then catch the evening flight back to Manila. The team was amazed that everything went so

well even though they were invited to observe the Sabbath with us. God’s glory was shown in a clear fashion during this project, and I prayed that these young men would learn something of God’s grace from their time with us. I hope that our obedience was an example to them, that it is possible to follow God’s law and still have time to complete our work. God controls the time and our victories. If we let Him lead the way, all will be completed according to His will. 



# ALASKA Arctic Kingdom Building

by Fran Hansen

**W**E ARRIVED IN GAMBELL, ALASKA, St. Lawrence Island, on June 11. It was foggy, so we didn't get a very good look at the island, and it has been foggy most of the days since! Sadly, there was a suicide only five days after we arrived. This is one of the reasons we are here. With Alaska having one of the highest suicide rates in the country, we hope that through our ministry we can help people see there is a better route to solving problems.

The 4th of July was the best day so far, with a temperature of 68 degrees. The whole village got together to play games and celebrate. Every year after the 4th, the real work begins. Food has to be put up (walrus, seal, whale and any birds that have been harvested and hung on drying racks), greens have to be gathered and fishing starts. There were several nets put out one night, but after midnight, the surf rose and ruined some of them. Not having a net can be very detrimental to these families. It means there won't be as much fish in the freezer this winter.



We were invited to go to "camp" one Saturday afternoon. It was a four-hour ride one way on the four-wheeler (three hours there and four hours back). We didn't do much moving around the next day! But what a beautiful island! The sun was shining that day, and we saw many birds. The shoreline is gorgeous! We saw some small mountains, and even some small snow fields still remained this late in the summer.

The people have been so gracious and friendly, waving and smiling when they greet us. When they find out that we have moved here and plan on staying, they seem very happy. We have met with the village

drug counselor, a woman who is also the lay pastor of the Presbyterian Church, the only other church in Gambell. We are going to work together to put on this year's Christmas program. Our church is going to supply a pre-decorated, 10-foot artificial Christmas tree to



set up in the middle of the village. We will all gather around the tree in the village and sing carols before heading off to the local gym for the Christmas program.

Some of our other plans are to have a movie night for various age groups, a craft night for ladies, a youth club and some summer VBS programs. Another thing we are planning is a "free gift shopping day." For a day or two, we will have children from ages 10-16 come and pick out gifts for their parents. Then the parents can come and select gifts for the children. There are currently only two stores in Gambell. One is very small and the other carries groceries and other necessities, but there are no gift items or "fun" things. One little boy came to our house (and continues to do so about twice a day) with his little sister. He is six, and she is four. I gave each of them some play dough. They left, and came back



about three minutes later, asking what to do with it! We take so many things for granted.

The church here is small but very warm and faithful. We have around 10 regulars and are encouraging missing members to come back. We are starting to invite families over for meals, as we hope this will be a better way to get to know them.

The men here are master ivory carvers. (If you are interested in learning more about them please let us know. We can send pictures via email.) Unemployment is very high here, as you can imagine.

## Some Immediate Needs:

- Ten-foot Christmas tree (if you would like to donate it and send it up, please let me know...we don't need more than one!)

- Small gifts for men and women: lotion, dried fruit, nuts, shampoos, soaps, socks, sweaters, pocket knives, kitchen utensils, little knick-knacks (but no perfume!)

- Small toys for children, good warm clothing including socks and shoes, crayons, coloring books.

## Long Range Needs:

- Groups to come in the summer to hold programs for the children. (Families will stay home from fish camp if they know ahead of time that there will be something for the children.)

If you would like to make a monetary donation, please send it to AWA and mark it Alaska-Gambell Project. Send all gifts in-kind directly to us.

If you have any questions, ideas or suggestions, we would love to hear from you! Our email is [fayhxyz@gmail.com](mailto:fayhxyz@gmail.com). Phone number is 907-985-5628 and address is PO Box 10, Gambell, AK 99742. 

Birds on the River.





## General Conference Atlanta, GA June 23-July 3, 2010

HF radio is a critical component to AWA's operations. Without amateur radio, mission aviation activities would be greatly restricted and much less efficient. *Adventist Amateur Radio Association International* secretary-treasurer Jim Hoffer KW8T and wife Vera represented *AARAI* and helped staff AWA's exhibit at the 2010 General Conference session. The Hoffers' proficiency in Portuguese was a tremendous asset in communicating our respective complimentary missions.

Harvey and Marcia Kilsby of *Global Care Partners* also joined AWA in Atlanta where a project originating with International Aid (Lab-in-a-Suitcase) was a smash

Global Care Partners (Lab-in-a-Suitcase) is displayed on the left.



hit. The solar powered portable laboratory, in the hands of qualified personnel, has the potential to assist in diagnosing up to 90% of the diseases in a given environment. This

is a tremendous asset to itinerant medical personnel in primitive locations and can be easily transported by motorcycle, donkey or small airplane.

## EAA Air Venture, Oshkosh, WI July 26-August 1, 2010

Rita Damon, Fletcher Grahn, Mike Porter, and Don Starlin were joined by AWA Volunteers such as Bill and Donovan Greenley, Dave Hardinger, Doug Durham and others under the International Association of Missionary Aviation (IAMA) exhibit tent. Rubbing shoulders with missionary aviators representing Christian missions is a tremendous inspiration to all. A spirit of cooperation and determination not to let individual

understandings of scripture interfere with accomplishing the Great Commission was evident and noteworthy.

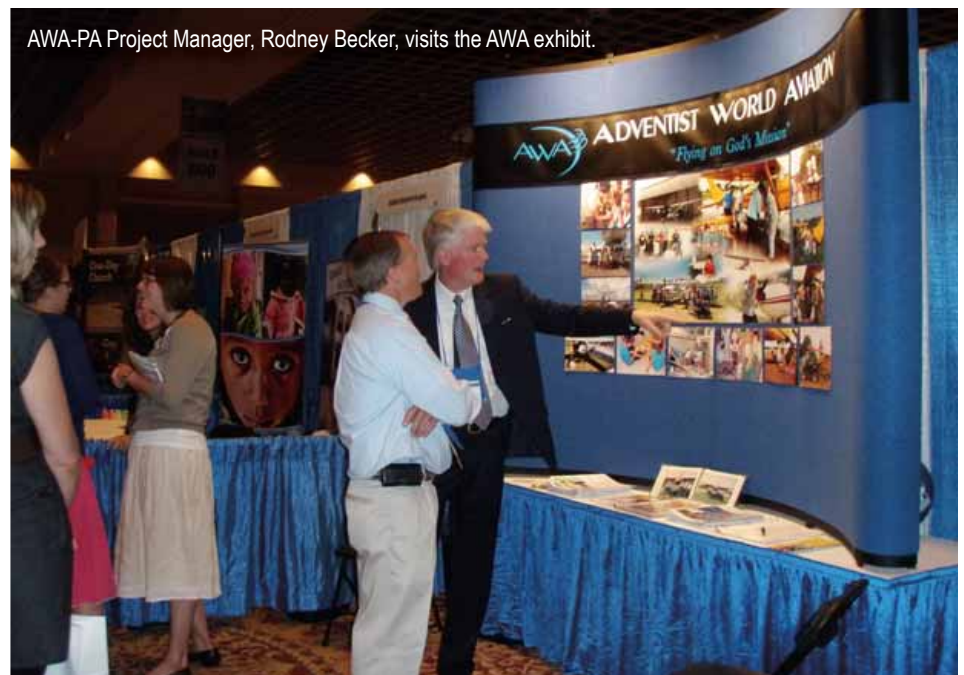
The local Missionary Aviation Support Association (MASA) made an outstanding contribution in facilitating the arrival, transportation, hosting, meals, and presenting devotional thoughts for hundreds of participating missionary aviators. AWA personnel truly appreciated the Fox Valley SDA Church's vegetarian breakfast the final Sunday morning of the event.



## ASI Orlando, FL August 4-7, 2010

Friends of AWA stopped by to chat, catch up on the latest news, and pledge support for various projects. Time was well-spent networking among AWA projects. AWA-Tennessee Project Manager Sam Miller was asked to present at an evening meeting God's call to make aviation training a reality at Heritage Academy. AWA-Pennsylvania Project Manager Rodney Becker had an opportunity to meet the AWA-Tennessee Operations Committee and brainstorm potential joint training exercises. AWA-Alaska Volunteer Pilot Ryan Woehler from Nome spent time discussing the needs, realities and opportunities in mission aviation. AWA will never forget ASI's investment in AWA projects over the years. Rich dividends in the form of tens of thousands of souls touched for the Kingdom are being paid every day!

AWA-PA Project Manager, Rodney Becker, visits the AWA exhibit.







Yuriy Nikitin, Kyle Leker, John Kent (AFM Training Director), Chrystal and Greg VanFossen, Don and Trudi Starlin; below the VanFossens with their children, Serena and Brandon.



## Summer Institute of Frontier Missions Graduation, August 21, 2010

The VanFossen family, student missionary Kyle Leker, and volunteer Yuriy Nikitin celebrated with graduates from AFM, South American Division, and South Pacific Divi-

sion church planters. At six strong, this was the single largest group of AWA Missionaries-in-Training to complete Adventist Frontier Missions SIFM at one time - a record AWA desires to be broken again and again. Now everyone is looking forward to building their missionary support teams before launching to the field.

## Spokane Turbine Center (STC) at AU, August 24, 2010

STC Director Jeff Turcotte and intern Jeremy Teows departed Liberty University in Lynchburg, VA and landed at Andrews University Airpark in Berrien Springs to spend the day wowing AU students, AWA financial partners, and the community with the only collaboratively developed mission airplane ever built – their Quest Aircraft Company Kodiak serial number 001!

Four loads of Kodiak passengers including future missionary aviators had a chance to view Southwest Michigan from the windows of a Kodiak. Jeff and Jeremy also spent time sharing with AU students the need for spiritually called, technically competent, committed missionary aviators to give their lives in service to build God's Kingdom.

When asked how the Kodiak was holding up in everyday use, Jeff exclaimed that overall it was proving to be a very reliable piece of equipment – especially for a new aircraft. STC is busy training pilots and mechanics to fly and maintain the Kodiak. Mission Aviation Fellowship, JAARS and Samaritan's Purse have been operating Kodiaks in the field now for over a year.

Steve Ottaviano, Assistant Director for Flight Standards at JAARS who has personally logged over 300 hours in

AWA KODIAK AIRPLANE #1 GOAL		\$1,125,000
NCCF Matching Grant	AWA Donors	↓ + \$375,000 Due on Delivery
\$1,028,524 Raised		\$129,973 Still Needed
16.5%	33%	50%
		67%
		83.5%



the Kodiak including some rough strips in Indonesia and earthquake relief efforts in Haiti comments, "It's proven to be the efficient, useful, rough, simple to operate and very reliable (I would say, mechanically) airplane that we'd hoped it would be ... which is a lot to say for a new design, and a new company." Steve also compared the cost of operating the Kodiak to the single-engine Avgas burning piston aircraft now in service and observed that experience has proven that on a cost per seat mile it is equal to or more cost-effective than they.

Please continue to pray and work with AWA to replace our aging fleet with these marvelous tools designed to expand God's Kingdom literally to the ends of the earth.



# Papua New Guinea

## Second PAC-750 Doubles Kingdom Building Capacity!

*by Roger Millist (Edited and printed by permission)*

**A**SURE INDICATOR OF A UTILITY BUSH AIR-plane's success is repeat purchases by operators. Since the extensive demonstration of Pacific Aerospace's XL750 in 2006, seven planes have been sold to operators in Papua New Guinea. PNG has long been a rugged proving ground for new types of multi-role aircraft, starting with the Junkers of the 1920s and continuing with the Pacific Aerospace P-750 XSTOL. The hot-and-high conditions and the multitude of short, sloping airstrips have revealed the strengths and weaknesses of many types of aircraft during the past 85 years.

Over the past year, the majority of aircraft sold by Pacific Aerospace (PAC) have been to repeat clients, with Air Kasthamandap in Nepal, for example, now operating three. Skydive Deland has just received its second P-750 and the geophysical aerial survey company Kiwi Air took delivery of its sixth P-750 last year, just to name a few. Here at Adventist Aviation in PNG, we are excited to have just taken delivery at the factory of our second P-750 XSTOL to help us extend our service to the people of PNG.

Ever since studying the early 750XL concept on the computer of Brian Hare, then-CEO of PAC, many years ago, I have had a strong

feeling that an enlarged-capacity Cresco would be an ideal single-engine aircraft for high-density altitude operations in PNG. This country has some 500 airstrips serving its six million people, many of which are at 5000 feet or higher, and during the hotter times of the day flying in or out of these runways is like flying close to 3000 feet higher than they actually are. Furthermore, many PNG mountain strips are poorly maintained, and following a heavy rain they are soft and drag on aircraft wheels. While this is great for stopping, it makes conditions most hazardous for takeoffs. Many airstrips are located up narrowing, climbing valleys, and do not permit a go-around past a decision point, which may be a considerable distance out from the threshold. Result: you either land or you crash!

It is not quite as scary as it sounds, as an appropriate approach profile is followed using key landmarks. As long as one passes over or abeam of these identifiable landmarks at the correct airspeed, altitude and configuration, all should be well. One thing I did find particularly challenging however, after flying mainly agricultural operations at low density altitudes before, was the much higher approach groundspeeds resulting from the

combination of maximum landing weight and altitude that are required here. Chuck in a few knots of anabatic tailwind, and a short airstrip can rush towards one at perhaps 15 to 20kt faster than the same operation near sea level. But most pilots adapt fairly quickly and enjoy the challenge and the satisfaction of pulling off a tidy arrival.

Adventist Aviation (PNG) is owned by the Seventh-day Adventist Church and provides air transport and support for the church's diverse and extensive range of activities here in PNG. This includes the operation and/or support of over 600 medical clinics, schools and mission stations. Roger Millist, who is also a pastor, has been the CEO and chief pilot of the PNG operation for the past six years. Roger grew up in the Rangiora area where Keith Wakeman was a topdressing pilot and close friend of his father. He earned his Private Pilot License in Palmerston North and Hawera, and in 1983 moved to PNG to work for the Adventist Church in the Sepik province and to complete his Australian Commercial Pilot License. From 1993, he flew part-time as an outback padre in Western Australia and in the Northern Territory, while running a charter operation out of Esperance, WA, before moving back to PNG in 2004.

The variety of passengers carried by Adventist Aviation includes teachers, ministers, nurses, builders, mechanics and the general public. Freight carried may be building materials, clinic and/or school supplies and materials for development projects such as the provision of clean water. The return back-load flights to main centers often haul bulky cash crops such as coffee, peanuts, vegetables and vanilla. Such crops are usually the only way villagers can raise any money. There is no social welfare system in PNG and little paid employment, so most of the population must exist on what they can grow on their own land. Agricultural practices date back thousands of years in the PNG highlands.

Due to the extremely difficult terrain, the poor state of the surface transport infrastructure, law and order problems and outbreaks of tribal disputes, the use of light airplanes is vital if anything is to get done in a timely and reliable manner. Unless one has expe-







rienced it, it is difficult to explain just how slow and arduous it can be to try to walk even a few kilometers. I did this when I used to investigate air accidents, and the memory of clambering around precipitous cliff faces while wearing a backpack and clinging onto vines while swinging a machete is difficult to forget. I recall trying to raise the spirits of my team by uttering such ludicrous remarks as: “Tally-ho chaps — this is all jolly character-building stuff!”

Of course, in more populated districts, there are footways that have evolved through use over thousands of years, but progress is still slow and laborious when climbing with a load. The airplane is a truly wondrous machine in such countries. That is why they were used so early in PNG. Until receiving its first P-750 in February 2007, Adventist Aviation’s mainstay machine was the turbocharged Cessna TU-206 which served PNG well since I flew the first one in the country way back in 1964. Back then, it seemed almost luxurious when compared to the somewhat Spartan Cessna 185.

The reasons for upgrading to the New Zealand P-750 XSTOL are many:


- Avgas is available only in drums and is expensive at \$2.00 per litre. Jet-A1 cost

is about half that and is available in bulk as well as in drums. While the fuel cost per hour for a TU-206 (Avgas) is \$197 as opposed to \$281 for the P-750 (Jet-A1), the P-750 can carry twice the number of people and three times the payload as the TU-206.

- The P-750 XSTOL is easier to maintain, with 150 hours between scheduled servicing instead of the normal 100 hours, and it performs much better in climb rate and altitude capability.
- The large belly cargo pack can carry the entire payload of a Cessna TU-206 while enabling the cabin to be kept clear for up to nine passengers or hauling bulky loads of coffee beans, vegetables, peanuts or vanilla back to main centers.
- The P-750 XSTOL can fly into and out of all the airstrips that can be accessed by the TU-206, most of which are about 500m in length, with some sloping up to 18 percent.
- As a larger and faster machine, the P-750 XSTOL can complete a work program

much faster than a TU-206. In the PNG highlands, the best flying weather is from the morning through mid-afternoon. Given optimum planning, a P-750 XSTOL can achieve by about 10:30 a.m. what it would take a TU-206 until 3:00 p.m. to complete.

- The P-750 XSTOL uses the 750 SHP turbine Pratt & Whitney PT6-34, a turbine engine which imbues great pilot confidence when operating a single-engine airplane over the rugged Papua New Guinea landscape.


In spite of all the advantages this aircraft provides, at the end of the day, what is most important is how many lives we were able to touch with the grace of Jesus Christ. When we tally all the numbers and balance all the ledgers, the two P-750 XSTOLs Adventist Aviation flies are simply the tools God has blessed us with so that we can share His love with the peoples of Papua New Guinea. Would you join us in thanking our Father for providing such effective tools for reaching His children here in Papua New Guinea? 

# ALASKA

## *First in 30 Years!*

by Jim Kincaid



Leona Commack is pictured with Charlie and Tammy Kovalenko on the day of her baptism July 3, 2010. Leona is the first baptism in the village of Shungnak in 30 years. She is 20 years old and is the fruit of ten years of Vacation Bible School contact by the Delta Junction and Tok Alaska Churches. We praise the Lord that such continuity is happening. From the beginning AWA airplanes have carried the mission teams to and from this village. 

ALASKA PROJECT				
10%	30%	50%	70%	90%
		\$54,253 Still Needed		
Dillingham Hangar and Land \$100,000				

### **FLIGHT LOG**

Adventist World Aviation  
PO Box 251  
Berrien Springs MI 49103-0251

*CHANGE SERVICE REQUESTED*

	NONPROFIT ORGANIZATION
	U.S. POSTAGE PAID
	BERRIEN SPRINGS, MI
	PERMIT NO. 10