



# Taking on a **mission**

Brigade Air inspires teens to consider  
humanitarian aviation careers

**I**t is dawn in Sentani, Papua, a province of Indonesia on the remote and mountainous island of New Guinea. A Cessna 206 lifts from the runway and turns south toward the tropical interior, which is populated by people who live in a Stone Age culture. Sprinkled through these remote villages are missionaries and aid workers who are seeking to alleviate suffering and deprivation among people isolated from the rest of the world. These workers live with the people, learn the local language, teach literacy, administer medical help, and lift the intense hardships of tribal conflict and poverty.

Carefully secured in the back of that Cessna are supplies and medicines, and the people, necessary to sustain this assistance. The pilot will stop at several remote grass or gravel airstrips today, most with runways less than 900 feet long and at high elevations,

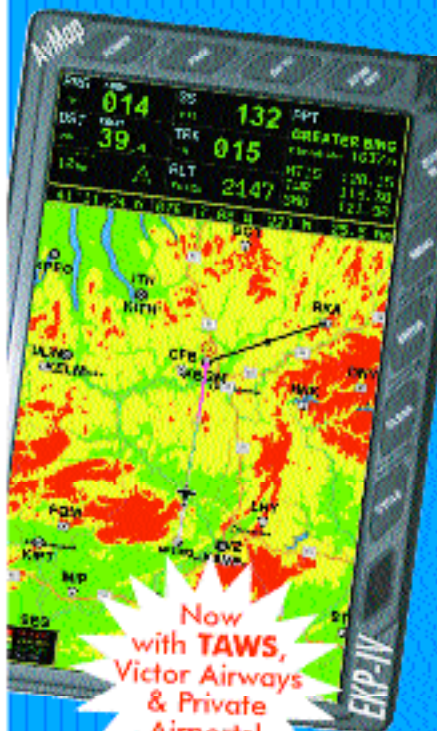
**BY DAN MANNINGHAM**

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bringing critical material and people to several different locations. The flight continues a supply chain that has been in place for several decades and which makes possible the difficult work of medical, educational, and spiritual workers. The only alternative is to walk on narrow footpaths at a ratio of one day's walk for each 15 minutes of flying.

The flying challenge is formidable. Mountain peaks rise to 16,000 feet and the valleys between them plunge into dark recesses. Weather over this tropical island is unpredictable and weather forecasting is uncertain. Winds through the mountain passes and valleys are routinely strong and shifting. Radio communications are not always reliable. Search-and-rescue capabilities in the event of an accident are primitive.

After the pilot crosses the mountains and skirts the weather he will descend for landings on airstrips that are difficult in the extreme. Many of these airstrips are built on the sides of hills so precipitous that it would be difficult to drive up them in a Jeep. Landings must be made uphill and takeoffs downhill because the slope is so great.

On final approach, the pilot must line up with the runway and commit to landing, because below 500 or 600 feet the airplane simply cannot climb steeply enough to avoid terrain. When the airplane lands, there are stray animals, unseen potholes, soft spots from recent rain, and even enthusiastic or inattentive people who might step in front of the airplane. And then, on takeoff, the runway falls away so steeply that pilots may have to charge over the edge and down roller-coaster inclines.

When the sun sets, pilots may bed down in a remote village in a primitive hut far away from family and friends and any sense of civilization. The smells and sounds will be strong and different and often unpleasant. And tomorrow they will do it all over again.

In Africa, Latin America, Asia, and wherever travel limits the spread of hope and humanitarian assistance, these pilots are performing the same services. Hundreds of pilots in hundreds of air-



planes are flying critical missions every day of the year.

### A game for professionals only

The typical pilot for this type of work has at least two years of college, although most have four or more. They must have both a commercial pilot certificate and an A&P certificate, training that typically requires two to four years, and it may be part of their college curriculum or acquired afterwards. After earning those credentials, prospective pilots have to spend a year or more accumulating flight and maintenance experience, often at an entry-level, commercial job at subsistence wages. When they have accumulated the credentials and applied to an organization in need of the skills, they undergo intense evaluations and in-house training by the organization, which can take six months or more. Once they are fully vetted as field-ready pilots and mechanics, they spend a year



**Brigade Air Executive Director Bruce Wolff leads Aviation Adventure Camps across the country each summer, introducing teens to aviation.**

or more raising their own financial support from friends, foundations, and churches. They also undergo jungle training for field survival before beginning their work.

Those assigned to some areas get language training that typically takes six to 12 months in country. Finally, after packing all of the personal items they will need for two to four years in a primitive area, they are cleared to travel to their assigned locations. Once in place, they will need considerable training to understand the rules and distinctions, the air traffic control system, and the weather and idiosyncrasies of the local area.

The entire training period for pilots who pursue this kind of career can easily consume six to eight years. During that time they will spend a small fortune on education without any prospect of ever earning more than a basic wage. Peers who migrate to military or airline flying will enjoy larger salaries and benefits while working less and probably flying in a less demanding and hazardous environments.

#### **Where these pilots come from**

Humanitarian and missionary pilots and mechanics come from all areas and a kaleidoscope of different church backgrounds. And because there has never been a national organization to encourage and expose young people to this

kind of aviation career, their paths overseas are equally varied. Recently, one part of that has changed.

Brigade Air has taken on the challenge of educating and inspiring teens across the United States and Canada to this kind of career by conducting weeklong youth aviation camps—Aviation Adventure Camps—and by providing a mentoring curriculum and club program for private schools, home schools, church youth groups, and individual families. The aviation camps provide actual flight experience for youth age 14 to 18.

Brigade Air's curriculum uses character-building topics written around aviation anecdotes to integrate values with the realities of flying. For example, in the introductory lesson on the four forces of flight—lift versus weight, thrust versus drag—the lesson is enhanced by making an analogy to a spiritual life. Hope is the lift, doubt drags one down, and faith keeps one moving ahead.

Brigade Air's curriculum kit contains a leader's guide, two CD-ROM interactive educational programs, instructional DVDs and videos, navigational chart and plotter, and an educational wall poster set. Accessory elements of the kit are contributed by NASA, Cessna, King Schools, and NOAA. There are nearly 60 church youth groups, home schools, and private schools using the curriculum.

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### The camp experience

Brigade Air uses borrowed facilities to conduct its weeklong Aviation Adventure Camps. During these events, are immersed in aviation, including both ground and flight sessions. These camps have been conducted in 16 states and one Canadian province with increasing participation every year.

The challenge for Brigade Air, however, is largely financial. During a weeklong camp, Brigade Air provides a value of \$1,000 in aircraft, materials, and personnel for each Brigade Air camper. That same week costs approx-

imately \$275 to \$500 for the basic camp expenses of housing, food, insurance, and so forth for a total of \$1,275 to \$1,500 for each Brigade Air camper, clearly a major obstacle for most teens.

In order to make this camp possible for more campers, Brigade Air maintains a scholarship program that receives funds from churches, foundations, industry, and individuals. All campers are eligible for the \$1,000 scholarship. The goal is to provide this opportunity at a greatly reduced cost to campers.

A survey by Mission Aviation Fellowship revealed that 196 places in the world have significant transportation barriers for humanitarian and missionary workers. The need for this kind of aviation is strong and will remain so.

Airplanes are readily available. Airports and hangars can be constructed with local labor, but pilots, mechanics, and other skilled professionals are in short supply. Brigade Air focuses on junior high and high school students to make a lasting impression on them. Aviation has a natural appeal to teens. Brigade Air seeks to harness that interest and direct them to use their abilities in a challenging way.

Fifteen years from now there will be another dawn in Papua. There will be more workers in the interior waiting for the airplane that brings the vital supplies. There will be another airplane lifting off into the tropical dawn, and the pilot, or other pilots in other areas, may remember their first exposure to humanitarian aviation at a Brigade Air camp some summer during their teens.

AOA

*Dan Manningham, a retired United Airlines captain, is a board member of Mission Safety International.*

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### Brigade Air

Brigade Air Executive Director Bruce Wolff established the organization in June 2000. The son of missionaries, Wolff is a commercial pilot, CFI, and A&P. He flew missionary flights in Mexico for six years. Members of Brigade Air's board of directors are also pilots and former missionaries. Since its inception, Brigade Air, through its Aviation Adventure Camps, has hosted more than 1,300 campers in more than 75 weeklong camps. Volunteer opportunities are available for aircraft owners and pilots willing to donate the use of their aircraft or their time. Recently, a major donor to the organization created a matching fund contribution that is available until December 2008. Brigade Air is a 501 (c) (3) charitable organization. Donations are tax deductible. For more information, visit the Web site ([www.brigadeair.org](http://www.brigadeair.org)), e-mail ([office@brigadeair.org](mailto:office@brigadeair.org)) or write Brigade Air, Inc., 6968 North Starshine Drive, Tucson, Arizona 85741.