



# TOOLS FOR THE HARVEST

**A PROJECT TO  
EQUIP THE FLIGHT  
MINISTRY OF  
AFRICA INLAND  
MISSION FOR THE  
NEXT DECADE**

**FUNDS NEEDED**  
*1.56 MILLION*

**TARGET  
COMPLETION**  
*AUGUST 2016*



**AFRICA IS A VAST AND VARIED LANDSCAPE.**  
GRASSLANDS, HIGHLANDS, DESERTS, WAR ZONES.

AND FOR THOSE WHO ARE  
CALLED **TO SERVE** IN THESE LANDS,  
THE WORLD THEY ENCOUNTER IS **DIFFICULT**  
AND **SOMETIMES DANGEROUS.**







AIM AIR IS A VEHICLE TO  
HELP TAKE THE **GREAT  
COMMISSION** TO THE  
**ENDS OF THE EARTH**



## OUR MISSION: AIR SUPPORT FOR A GREATER CAUSE

THE AIRPLANES WE FLY ARE **TOOLS**, MOVING MISSIONARIES, PASTORS, AND CARGO OVER SOME OF THE WORLD'S MOST INHOSPITABLE TERRAIN, **TO BRING HOPE AND THE GOOD NEWS** TO SOME OF THE WORLD'S MOST FORGOTTEN PEOPLES.

**AIM AIR** supports the broad work of missions and the Church in these distant regions of Africa. In an area representing eight countries and over eight million square kilometers, spanning the homelands of over 250 million people, AIM AIR is a vehicle to help take the Great Commission to the ends of the earth.

We are a Christian missionary aviation team operating six aircraft from three bases in East and Central Africa. Our team of pilots, mechanics, avionics technicians, and administrators serve the needs of 50+ Christian organizations and hundreds of missionaries. We are missionaries ourselves, sharing in the trials and triumphs of those we serve and playing a part in declaring the glory of God to the peoples of Africa.

**OUR MISSION** is the coordination and delivery of safe, reliable, and economical air transport service to enhance the ministries of evangelical missionaries, church workers, and Christian relief and development agencies in the region.

The people we serve are working in church planting, evangelism, community development, medical missions, children's education, pastoral training, emergency relief, Bible translation, short-term missions and more. We operate as a ministry of Africa Inland Mission and in partnership with other like-minded organizations.







IN THE 21ST CENTURY, MUCH OF THE MISSIONARY WORK THAT REMAINS IS AMONG THE **HARDEST TO REACH** PEOPLES AND PLACES

## OUR AIM: AFRICA'S UNREACHED PEOPLES

**AFRICA INLAND MISSION IS OVERCOMING OBSTACLES TO MAKE DISCIPLES AMONG AFRICA'S UNREACHED, WHEREVER THEY MAY LIVE.**

For 40 years, **AIM AIR** has served as a support ministry to the broader work of Africa Inland Mission. AIM is primarily a church planting mission, with a heart for **Africa's unreached**. About 1000 of Africa's 3700 unique ethnic people groups are unreached—that's over 300 million people who have little opportunity to hear the Gospel and even less opportunity to be discipled as a follower of Jesus. In the 21st century, much of the missionary work that remains is among the hardest to reach peoples and places.

There are many obstacles: political, ideological, cultural. But sometimes the obstacles are simply geographical—a village too far for practical access, too inaccessible in the rainy season, or simply cut off because of a civil war. For missionaries to live and serve in places like these, the airplane is essential, providing regular support and standing by in case of a crisis or an emergency.

In the next decade, AIM plans to place dozens of new outreach teams all over Africa. In the mountains of southern Sudan, the deserts of central Chad, and twenty other countries, ministry teams will settle in for years of service, sometimes with their small children in tow. They will live like the locals, learn the language, build friendships, and serve those around them through Christ's love and compassion. And occasionally, they will look to the sky as the sound of an airplane signals the arrival of a familiar face and a load of supplies.

This is our privilege—to serve God's servants. Through them the people and planes of AIM AIR are playing a part in God's great redemptive work in Africa.





# THE PROJECT:

## AIM AIR FLEET UPGRADE AND STANDARDIZATION

### GOAL

The Cessna Grand Caravan is the workhorse of the AIM AIR fleet. It is the most efficient, reliable, and cost-effective aircraft we fly. With nearly two decades of experience operating Caravans throughout Africa, AIM AIR’s ministry has come to depend on this remarkable ministry tool. Today, with three operational bases strategically placed in East and Central Africa, there is an emerging need to base one Caravan at each location. A dispatch-ready aircraft at each base allows us to respond to flight requests effectively and improves reliability by providing cover during maintenance events. The engine upgrade brings added performance as well as cost savings, and standardizing both the engine and avionics installations makes AIM AIR a safer and more efficient operation. The **Fleet Upgrade and Standardization Project** will ensure the AIM AIR turbine fleet is prepared for another decade of service.



**PHASE I / ACQUIRE A THIRD CESSNA GRAND CARAVAN COMPLETED** in April 2015. A refurbished Grand Caravan (N685KS), equipped with new Blackhawk engine and Garmin G600/GTN upgrades, became fully operational as part of the AIM AIR fleet. This step was completed in partnership with SIM, a Christian mission organization heavily reliant on AIM AIR’s support for its ministries in South Sudan. In the Caravan’s first month of operation, it logged over 14,000 miles (85 flight hours), providing supplies to dozens of missionaries and pastors and conducting five medical evacuations.



**PHASE II / UPGRADE 5Y-PCS COMPLETED** from May 2014 to June 2015. With only 9000 hours on the airframe, the younger of AIM AIR’s two original Caravans (5Y-PCS) still had years of useful service. This airframe was an ideal candidate for an upgraded engine and avionics package. A Blackhawk engine upgrade was accomplished in May 2014 in South Africa. The Garmin avionics upgrade was completed in Nairobi in May 2015. The aircraft returned to service in June, fully standardized to match N685KS.



### PHASE III / RETIRE 5Y-XPA AND REPLACE WITH A NEWER, UPGRADED CARAVAN

5Y-XPA, the oldest Caravan in the AIM AIR fleet, has over 16,000 hours on the airframe and less than 800 hours remaining until engine overhaul. This engine has already been overhauled three times and a complete engine replacement is now required. The airframe life is in the range where extensive inspections are required every 2500 hours. We have determined that putting considerable money into upgrading such an old airframe is not wise. **PHASE 3** of this project involves selling 5Y-XPA and raising the additional funds necessary to replace it with a low to mid-time airframe. Adding the higher-performance Blackhawk engine and advanced Garmin 600/GTN avionics to the replacement Caravan would bring it into compliance with the two already upgraded Caravans. It is anticipated that 5Y-XPA will run out of hours on the engine in August of 2016.

### ESTIMATED COST

\$1.8 million (\$1.56 million in new funds)

### TARGET COMPLETION DATE

August 2016

### WHAT’S SO GRAND ABOUT THE CARAVAN?

Cessna first introduced their “Cargomaster” in October 1984, with its primary utilization as a short-haul cargo aircraft for Fed Ex. It was the largest single engine aircraft Cessna ever built, and the addition of a turbine engine offered new possibilities. The Caravan readily exceeded expectations and soon found a niche beyond package delivery, replacing many smaller piston-powered aircraft doing hard labor around the globe.

The “Grand Caravan” (Model 208B) was introduced in October 1990. It included a longer fuselage and a cabin that could be quickly converted from a people-hauler to a cargo truck or a combination of the two.

Over the last three decades, the Grand Caravan has become a staple in the world of bush flying - from Alaska to the plains of Africa. Rugged, practical, reliable, safe, and mission-tested, it is a coveted and capable tool. With modifications to the landing gear and wings, and the addition of a more powerful engine like the Blackhawk conversion, the Grand Caravan is perfect for unexpected loads out of short, muddy airstrips - which makes it perfect for the work of missionary aviation. AIM AIR has been operating Caravans since 1996.



# SERVICE-READY CARAVAN

## DETAILS ABOUT THE UPGRADE:

### STANDARDIZATION - SAFETY - STEWARDSHIP

The upgrades chosen as part of the AIM AIR fleet standardization will have a number of positive outcomes, enhancing the reliability and safety of our operations as well as saving money.

**What is Fleet Standardization?**  
All of our pilots fly all of our planes. When all of the airplanes are flown in the same way and use the same instrumentation, it improves the safety and security of the flight team and passengers.



**ENGINE CONVERSION**  
The Blackhawk -42 conversion is more powerful than the original Caravan engine. With an **increase in available horsepower from 675 to 850**, the aircraft is now able to take off in a shorter distance and climb faster over obstacles. This greatly improves safety when operating from the marginal airstrips common to Africa bush flying. Flights are more cost-effective due to increased cruise speeds and a faster airplane can fly more miles in the life of an engine, reducing costs for the missionaries who charter the aircraft. Passenger comfort is also improved as climbs to smooth air are dramatically reduced.

**SATELLITE TRACKING**  
The Spidertracks satellite tracking system allows us to **visually track each aircraft online** according to our selected time interval. Messaging is available, together with SOS and other features, that allow us to know the status of the aircraft even when radio reception is weak or non-existent.

**AVIONICS**  
Updated technology replaces equipment that has become difficult to maintain or obsolete. “Glass cockpit” components bring lower maintenance costs, new functionality, and increased safety to the flight environment.

**G600** - The original gyro-equipped avionics package has been replaced with state-of-the-art, solid state, glass panel instruments. This robust instrumentation will drastically reduced maintenance costs and downtime while adding remarkable enhancements to the pilot’s main source of flight information.

**G750/650** - The GPS package we have been using for the past 15 years is becoming “not-available/non-supported” by the manufacturer. The new Garmin GPS cluster improves on the previous version and promises continued reliability.

**Radar Altimeter** - New to our aircraft, this system allows us to know the exact distance from the ground in an environment where current barometric pressures and exact altitudes are ambiguous.

**Traffic Collision Avoidance System (TCAS)** - As we operate in arguably two of the busiest general aviation airports in all of Africa, near-miss encounters with other aircraft are not uncommon. TCAS allows pilots to detect the location of aircraft in the area before they are able see them with their eyes.



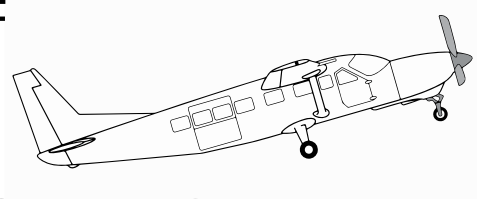






ASK THE LORD OF  
**THE HARVEST**,  
THEREFORE,  
TO **SEND OUT WORKERS**  
INTO HIS FIELD.

MATTHEW 9:38



## PARTNER WITH US

3 Cessna Grand Caravans

3 strategic bases

Staffed and equipped for the next 10 years

Logging 30,000 flight hours

In service of Christ and His Kingdom

To the ends of the earth

### Phase Three of the project has begun.

AIM AIR is seeking partners to seed the fundraising effort toward our goal of \$1.56 million.

**You can help.**

Contact **Debby Stephens**

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**AIMAIR.ORG**







# **AFRICA INLAND MISSION**

Christ-Centered Churches  
among all African Peoples

[www.AfricaInlandMission.org](http://www.AfricaInlandMission.org)