

AFD helps MAF's work in Kalimantan

AFD is donating a new Kodiak 100 aircraft for use by MAF in Kalimantan.

The aircraft - registration number N9710M - has now been built, tested and adapted for MAF's use, and is visiting the Isle of Man as part of the delivery trip from the USA to Kalimantan so that AFD Staff and the Manx Community can see her before she starts work in Indonesia.

The province of Kalimantan in Indonesia occupies the largest portion of the island of Borneo and remains largely undeveloped. The geographical and logistical barriers are daunting. Dense rain forests and impenetrable mountains prevent people from having even the most basic services such as health clinics, and education beyond primary school and access to the Gospel.

Even today, animist groups living far into the interior are difficult to reach. Impenetrable jungles, arduous terrain, and the absence of roads hinder access to critical resources. MAF began to serve such groups and the emerging indigenous churches of Kalimantan in 1969.

The new Kodiak which AFD is donating will allow MAF to support the following types of activity in Kalimantan more efficiently with their flights:

- Medical clinics**
- Emergency medical evacuations**
- Community development**
- Surveys**
- Conservancy projects**
- Transport of goods, medicines, and school supplies**
- Ministry and mission support**



A new-style aircraft has been designed specifically to overcome the difficulties faced in remote regions, where each airstrip poses a different set of problems.

The Kodiak 100, developed by Quest Aircraft Company of Idaho, USA, is described as 'a mountain rocket'; it is an aircraft uniquely designed to overcome many obstacles of flying in a humanitarian or mission situation.

The pointed cowling maximises the Kodiak's take-off thrust, and the 4-blade 96-inch propeller contributes to the same goal while having a 19-inch clearance to allow taxiing on rough terrain.

Its restricted wingspan permits turning in the tight confines of a small airstrip, and the drooping wing tips give a dramatically lower stall speed.

Versatility is built in. The landing gear is easily removed for conversion to float operation. And in the utility version, facilities are also easily juggled – from passenger to cargo to half-and-half.

Load is up to nine passengers, and the doors open exceptionally wide to enable patients on stretchers to be boarded easily.

The plane carries up to 320 gallons of fuel – so it can fly 1,200 nautical miles before refuelling.

The Kodiak can also land on a really short runway – needing little more than half the 835 feet required by the Cessna 206, and a screen shows the pilot a real-time image of surrounding terrain, enabling the aircraft to be guided easily in heavy storms or in complete darkness.

One of the major features of the new aircraft is its use of jet fuel. Jet fuel is far more readily available than the AvGas needed by the Cessna. Jet fuel is also much cheaper so it will greatly reduce running costs.

The Kodiak can also operate for 4,000 hours between overhauls – much longer than the Cessna - and there is a ready supply of spare parts.

With the ability to carry **twice** the cargo weight of the Cessna 206, the Kodiak promises to **double** the amount of medical, food or disaster relief delivered in one flight.

Feature comparison

	Cessna 206	KODIAK 100
Seating capacity, including pilot	6	10
Useful load, after pilot and fuel for 500 nautical miles	414kg	997kg
Maximum cruising speed at 10,000 feet	125 nm/hr	185 nm/hr
Maximum flight distance at 10,000 feet	618 nm	1,233 nm
Fuel capacity (useable)	88 gallons	320 gallons
Fuel cost per gallon (estimated average worldwide cost)	£5	£2
Operating cost per nautical mile	91p	88p
Cost to deliver 400kg cargo based on 500 nm trip (assumes maximum load for both aircraft)	£453	£182

