

Quest Kodiak 100

Otter. It resembles a boxy, powerful Caravan. But a quick glance at the wings and tail will tell you that this is an airplane designed for a much wider flight envelope. The wing is segmented into a high-lift centre section; the tips are designed for keeping the Kodiak nicely stable at speeds less than 70kts.. The massive 20ft wide x 15 ft high tail feathers are not designed for speed, but for keeping

looks a lot like some other machines already sitting on the ramp? The answer, believe it or not, is *missionaries*. Missionaries love powerful STOL airplanes and, although the Kodiak looks similar to a Caravan, it's really quite different in ways that only pilots and operators would appreciate. As with most airplane types, you can't say that the Kodiak is "better" than any other type - because alert pilots will reply, "Better for what?"



The Kodiak design was roughed out by missionaries from several humanitarian organizations to do a specialized job.. Mission Aviation Fellowship, New Tribes Mission, and the Jungle Aviation and Radio Service (JAARS), all operators of classic Cessna workhorse airplanes put their heads and hands together and sketched out a joint wish list.

You can tell just by looking at the tail of the new Quest Kodiak that this is a hefty airplane designed for serious work. At 6800 lbs, the Kodiak is bigger than the 5000 lb Beaver, but a little smaller than the 8000 lb

ahead of a powerful machine in slow flight close to the ground.

Any new airplane causes ripples of excitement in the aviation business, but especially now in today's challenging economy. Who would be investing in expensive development of a new type these days, particularly when the result

Missionary organizations around the world are prodigious users of the venerable Cessna 185 & 206 types. However, the 206's 40-year-old IO-520 only runs on av-gas which is becoming scarce and expensive, costing \$4.00-\$5.00 per litre in Africa (about \$225/hour in a 206). The missionaries' dream machine had to use cheap & plentiful jet fuel. The 206

has room for only 5 passengers, so more seats were required. Like most aircraft operators, what the missionaries needed was something bigger, cheaper, faster, and stronger! When the numbers were crunched, the Kodiak could easily deliver 3 times the freight at only a slight increase in costs while operating far from a maintenance base on dirt runways. In other words, the Kodiak can still deliver, even far from home deep in bush country.

Pilots love the comparisons: As with the 50-year old DHC-2 Beaver, the Kodiak is designed to operate from short, rough fields. As strictly a commuter, the Kodiak might be not up to the efficiency of Cessna's Grand Caravan. But the Caravan, will be totally stressed trying to deal with short, dirt airfields. The smaller Beaver is too slow and requires too much maintenance.



The larger DHC-3 Otter may be able to cope with the dirt but, even with turbine power, the Otter is red-lined at 124kt (or 143mph in Otter numbers). At this speed, the Kodiak is still accelerating to its 185 kt cruise (165 kt on floats). The Otter may be an classic aviation masterpiece but it's becoming scarce with time, and good ones are trading for almost \$2 million apiece - quite a bit more than a new Kodiak. There's almost no chance of an operator being able to find 10 or 20 turbine Otters for a new flight operation.

The Kodiak has several noticeable features that separate it from the rest of the similar types in this class, mainly the Caravan and the Otter. As any pilot can tell from looking at the large

wheels, its wings, flaps, and tail, the Kodiak is designed as a STOL machine. It can easily take outsized loads, (plywood, snow-mobiles, refrigerators?!) into and out of sub-1000' grass fields without shredding the tread off the tires. With its modest 70kt approach speed and its reversing prop, the Kodiak will never over-run a short, slippery grass field..

The avionics package is a 3-panel Garmin G1000 package. The Kodiak's blinking, talking glass cockpit is unique enough to mean that you'll likely need to re-do your instrument rating since there's no such thing yet as a "standard" IFR glass panel. If XM satellite radio is available, the Garmin system also decodes and displays NEXRAD graphical weather wherever digital weather is

broadcast (most of the world, including Canada, doesn't have NEXRAD capabilities). At present, however, NEXRAD is just a distant dream for aviators outside the USA and Kodiak pilots will have to make do with only terrain graphics.

It's hard to believe that the first flight of the Kodiak (s/n 001) was March 2007, just 5 years after the ground was broken for its Idaho headquarters. The Kodiak received FAA Type Certification on May 30 2007, and began customer deliveries in December of that year, turning out about 1 airplane per month ever since. Quest has seen strong market acceptance in key market segments, including personal use, Part 135 charter operations, government, and humanitarian organizations. With its optional roll-up cargo door, the Kodiak is the only factory airplane certified for parachuting ops.

What most observers don't usually see right away is the reason that missionaries use airplanes like the Kodiak. The reason is that missionaries fly humanitarian ops into primitive, unpaved airfields in remote parts of the world. The runways are often rolling fields carved by

hand by villagers who are longing to be in touch with the modern world. Missionary flights mean life-giving doctors, nurses, and teachers. Humanitarian flights make civilization available for the poorest of country people in places like Papua-New Guinea, Chad, Ecuador, and Angola.

The original missionary workhorse, the Cessna 206, still does a great job where avgas is available. But these planes wear out after decades of flying off short, rough runways. Every moving part wears out. The engines have to be returned to the shop every 2 years for overhaul, so the plane is grounded for months while everyone waits on the ground for its return. The Kodiak aims to change all that, and it's already started, with several missionary organization replacing their vintage 206's with newly delivered Kodiaks.

Most Kodiaks will end up flying in mountainous back-country or on dry plains. A number of Kodiaks will end up on floats. The Kodiak was designed for water, and it can be fitted easily with straight floats, amphibians, or skis. Wipline 7100 floats will cost an additional \$250,000 (Canadian) installed. No

structural mods are needed - the Kodiak is float-ready from the factory.

The Kodiak is a striking airplane to emerge in the middle of a crushing recession. That it has arrived at such a difficult time, and yet has still generated a three-year backlog of orders shows how aviators have received this remarkable flying machine.

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