

THE XR UPGRADE KIT

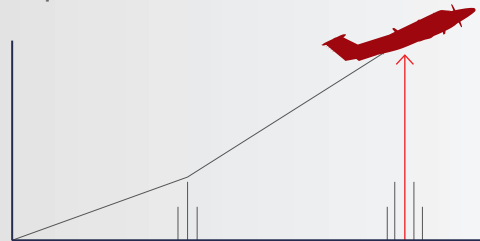


BLACKHAWK AEROSPACE XR SPECIAL MISSION KIT FOR THE KING AIR 350

Blackhawk Aerospace offers a superior performing, lower cost alternative to other twin-engine turbo-prop offerings. The XR Special Mission Kit starts with a stock King Air 350 and optimizes it for the required mission. The older generation PT6A-60A engines and 4-bladed aluminum propellers are removed and replaced with brand new modernized 1200 SHP PT6A-67A engines and lightweight 5-blade natural composite MT-Propellers. Max Gross Weight is increased to 16,500 lb with new heavyweight landing gear, high-float tires, and fully-enclosed landing gear doors. The XR Kit also incorporates conformal auxiliary CenTex Saddle Tanks that are 172 lb lighter than the extended-range fuel tanks provided by the OEM while providing additional endurance and range improvements to meet the most demanding mission requirements. The TB44 True Blue Power lithium-ion battery is also added, which provides up to four times increased battery life, significantly greater cranking amps, 30 lb of weight savings, and reduced continuing maintenance costs.

The PT6A-67A 1200 SHP engines provided with the XR kit are flat rated to 1050 SHP. The -67A's larger compressor produces higher thermodynamic horsepower output to provide full torque at higher altitudes. This extra horsepower provides significantly improved first, second, and third segment climb capability, greater takeoff performance in high and hot conditions, and increased single-engine service ceilings. A larger, single oil cooler is provided with each engine to ensure oil temperatures remain within limits while taxiing during the hottest weather conditions. The ability to reach FL350 in 18 minutes with the Blackhawk Aerospace XR Kit significantly reduces exposure within hostile airspace and ensures crews can be on-station to meet time-critical mission execution windows. The new PT6A-67A engines in the Blackhawk XR Kit

Blackhawk Aerospace XR Upgrade Kit significantly expands the ability to meet or exceed second segment climb gradient requirements with full fuel



come with a P&WC Enhanced Warranty of 2,500 hours or 5 years with prorated coverage to the 3,600 Time Before Overhaul (TBO) and include all mandatory and optional Service Bulletins. The new engines deliver peace of mind and greater reliability while significantly expanding mission capabilities.

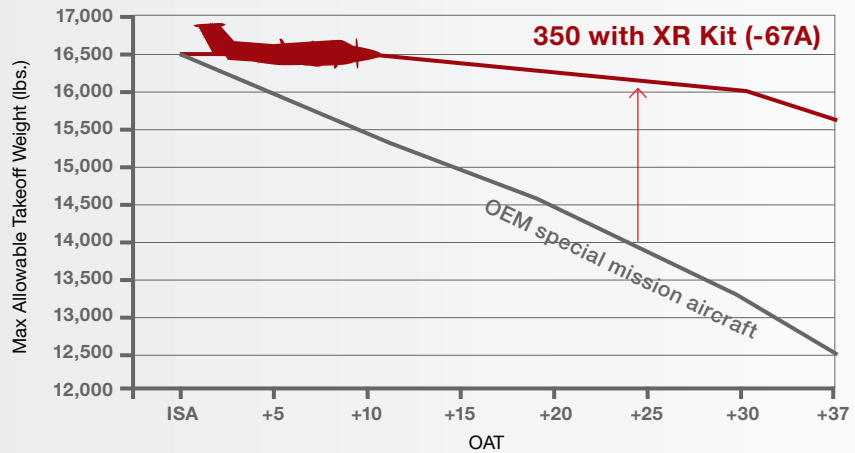
The Blackhawk Aerospace XR performance is revolutionary. In direct comparison to the stock King Air 350ER, the XR-equipped King Air 350 is 220 lb lighter, requires 4.8% less power at equal speed which translates to less engine stress, cruises 30-40 KTAS faster, and provides 24% more horsepower at typical loiter altitudes. Furthermore, Blackhawk's XR Kit significantly expands the ability to meet or exceed second segment climb gradient requirements with full fuel and provides a head-turning 60% increased climb rate to altitude. In Chart 1 below, *Operating Performance Comparison – 2nd Segment Climb Requirement (Flaps Up)*, it clearly depicts the XR's superior climb capability, increased payload advantages, and greater safety margins in operating environments found in harsh, special-mission operating locations around the world.

CHART 1
OPERATING PERFORMANCE COMPARISON
 2nd Segment Climb Requirements (Flaps Up)

Takeoff Conditions	OEM KA350ER 16.5K Max Gross Weight PT6A-60A Engines Hartzell 4-Blade Props		Blackhawk Special Mission XR 16.5K Max Gross Weight PT6A-67A Engines MT-Propeller 5-Blade Props		Blackhawk Special Mission XR Payload Advantage over the OEM KA350ER	
	A/C and Bleeds On	A/C and Bleeds Off	A/C and Bleeds On	A/C and Bleeds Off	A/C and Bleeds On	
Net Takeoff Flight Path - Second Segment - Flaps Up - Max Takeoff Weight	ISA+15C 5,000 PA	1.0% <small>(weight reduction needed to 15.0K to make 2.4% climb gradient)</small>	1.0% <small>(weight reduction needed to 15.4K to make 2.4% climb gradient)</small>	2.15% <small>(weight reduction needed to 16.15K to make 2.4% climb gradient)</small>	2.18% <small>(weight reduction needed to 16.35K to make 2.4% climb gradient)</small>	1,150 lb
	ISA+25C 3,200 PA	0.9% <small>(weight reduction needed to 14.4K to make 2.4% climb gradient)</small>	1.2% <small>(weight reduction needed to 14.9K to make 2.4% climb gradient)</small>	2.4% @16.5K	2.4% @16.5K	2,100 lb
	ISA+30C 2,500 PA	0.6% <small>(weight reduction needed to 14.1K to make 2.4% climb gradient)</small>	1.0% <small>(weight reduction needed to 14.7K to make 2.4% climb gradient)</small>	2.38% <small>(weight reduction needed to 16.4K to make climb gradient)</small>	2.4% @16.5K	2,300 lb
	ISA+25C 2,500 PA	1.0% <small>(weight reduction needed to 14.6K to make 2.4% climb gradient)</small>	1.2% <small>(weight reduction needed to 15.9K to make 2.4% climb gradient)</small>	2.43% @16.5K	2.5% @16.5K	1,900 lb
	ISA+30C 1,000 PA	0.9% <small>(weight reduction needed to 14.5K to make 2.4% climb gradient)</small>	1.3% <small>(weight reduction needed to 14.9K to make 2.4% climb gradient)</small>	2.5% @16.5K	2.6% @16.5K	2,000 lb
	ISA+20C 1,000 PA	1.7% <small>(weight reduction needed to 15.5K to make 2.4% climb gradient)</small>	2.0% <small>(weight reduction needed to 16.0K to make 2.4% climb gradient)</small>	2.8% @16.5K	2.9% @16.5K	1,000 lb
	ISA+30C Sea Level PA	1.4% <small>(weight reduction needed to 15.4K to make 2.4% climb gradient)</small>	2.2% <small>(weight reduction needed to 15.9K to make 2.4% climb gradient)</small>	2.8% @16.5K	2.86% @16.5K	1,100 lb
	ISA+20C Sea Level PA	1.9% <small>(weight reduction needed to 15.9K to make 2.4% climb gradient)</small>	2.3% <small>(weight reduction needed to 16.4K to make 2.4% climb gradient)</small>	3.05% @16.5K	3.1% @16.5K	600 lb

CHART 2 OPERATIONAL FLEXIBILITY

For the harshest high and hot operating conditions to be found, the Blackhawk Aerospace XR Kit provides a tremendous capability advantage over the 350ER. In Chart 2, *Operational Flexibility (5,000 ft Elevation)*, the graph compares the performance of the XR-equipped 350 to the PT6A-60A powered 350ER with a field elevation of 5,000 ft and increasing temperatures. At ISA +25° C, the Blackhawk XR Kit delivers 1,725 lb more payload (fuel/cargo) than the 350ER



CONCLUSION

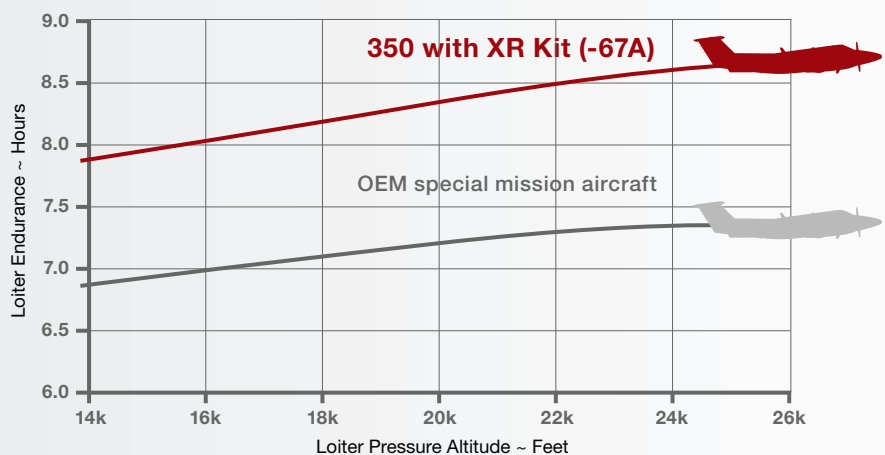
The XR Upgrade Kit delivers 1,725 lb more MTOW (fuel) at ISA +25° C than 350ER from a 5,000' elevation airport.

CHART 3 INCREASED LOITER TIME

Chart 3, *Increased Loiter Time*, depicts the increase in loiter time made available by the Blackhawk XR Kit when operating from a runway with a 5,000 ft field elevation. The XR Kit has loiter times that are one hour or more than the 350ER.

CONCLUSION

The XR Upgrade Kit delivers more than an hour increase in loiter time from a 5,000' airport at ISA +25° C.



Conditions

- Airport Elevation: 5,000' at ISA +25° C
- Max Weight to Achieve Climb Req.
- Loiter Speed 130 KIAS
- 45 Min Reserve Fuel



Climb

Provides a head-turning 60% increased climb rate to altitude



Weight

Max Gross Weight is increased to 16,500 lb



5-Blade

Older generation PT6A-60A engines and 4-bladed aluminum propellers are removed and replaced with brand new modernized 1200 SHP PT6A-67A engines and lightweight 5-blade natural composite MT-Propellers

The Blackhawk Aerospace XR Performance Upgrade incorporates cutting-edge technology with regard to the propellers and battery supplied with the kit. The MT-Propeller 5-blade composite propellers certified for the XR Special Mission Kit offer an optimized blade design with a shorter diameter (102 inches) to increase ground clearance and reduce Foreign Object Damage (FOD). The bonded nickel alloy leading edge of the MT-Propeller is four times harder than aluminum for greater protection against FOD. The composite blades reduce cabin and exterior noise by at least 5 dBA helping to improve stealth operations. Another key advantage of the MT-Propeller is that it allows for the removal of the ground-idle solenoid and a lower idle of 600 RPM which reduces weight and maintenance costs. The composite propellers are extremely durable and come with the longest TBO in the industry at 4,500 hours. They also offer unlimited blade life compared to traditional aluminum propellers, which can only survive to the third or fourth overhaul.

The True Blue Power TB44 lithium-ion battery replaces the main-ship battery, which provides a weight savings of 30 lb while doubling cranking amps for quicker engine starts, seven starts in seven minutes. This battery is built for use under the toughest conditions with superior temperature performance (-40°C to +70°C) while having a useful life that is up to four times that of

lead-acid and NiCad alternatives. The intelligent monitoring system incorporated into each True Blue Power battery prevents the need for battery removal for capacity checks and reduces maintenance costs by 50% or more.

In addition to performance enhancements, the Blackhawk XR Special Mission Kit also impacts the bottom line. The kit provides improved performance and operational flexibility at a significantly lower acquisition cost as compared to other special mission aircraft with extended range. Factory-new propellers, engines, heavy weight landing gear, lithium-ion battery, auxiliary CenTex Saddle Tank fuel lockers, the Supplemental Type Certificate applicable to your aircraft, and supplements for the Pilot Operating Handbook are all included in the price of the upgrade.

The Blackhawk Aerospace XR Special Mission Kit transforms readily available King Air 350s into a low-cost, high performance, special mission workhorse.

For more information on the Blackhawk XR Kit or any other of the numerous Blackhawk Aerospace Performance Upgrades, please contact our sales team at +1 (254) 755-6711.



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A E R O S P A C E

Blackhawk Aerospace Solutions, LLC is
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