» Standing Up the IqAF: King Air 350s

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IqAF King Air 350

It has been a long road for the Iraqi Air Force. According to Iraqi figures, the IqAF boasted more than 1,000 aircraft before the 1991 Gulf war – and around 300 after it. Over 5 years after Operation Iraqi Freedom began, and over 4 years after the first Iraqi Provisional government was formed, the once-mighty IqAF still operates just a handful of mostly-unarmed propeller aircraft and helicopters.

Unarmed aircraft can still offer value, of course. Surveillance is critically important to Iraq, especially surveillance of national infrastructure like telecommunications lines, pipelines, and other facilities. In addition to its Cessna "Bird Dogs" and handful of other light spotter planes, the IqAF is strengthening its fleet with an unlikely star of the Iraq War: Hawker Beechcraft's propeller-driven King Air…

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King of the Air: From C-12 to 350ER-ISR

C-12 Huron
(click to view full)

Iraq has made King Air 350ERs the high end of its aerial surveillance capabilities, with 10 specialty 350ER-ISR variants ordered to date. Another 2 aircraft have been ordered for type training, VIP transport, and light cargo duties.

Beechcraft's smaller King Air 200 series already serves as the basis for the USAF's C-12 Hurons, which are used to shuttle VIPs and small cargo items. A variant called the C-12R Horned Owl has been outfitted with the AN/APY-8 Lynx ground-looking radar and electro-optical sensors for long range day and night viewing, and is used by the US Army as part of its highly successful Task Force ODIN effort that combines manned aircraft and UAVs. The King Air 350/350ER is a newer aircraft that has been ordered by the US Marines, and appears likely to replace the King Air 200s in the US military as well.

The 350 family is slightly larger than its King Air 200 counterparts, with a longer cabin and a slightly larger wingspan. The 200's Pratt & Whitney Canada PT6A-52 engine and their 1,610 shp of thrust are replaced by PT6A-60As delivering 2,100 shp. As a result, operating weight and carrying capacity can rise from the 200 series 8,720 lb/ 3,955 kg with a useful load of 3,870 lb/ 1,755 kg, to the 350 series 9,526 lb with a useful load of 5,574 lb. Like other aircraft in their class, King Air 350s can operate on runways as short as 3,300 feet with a full load, and under 2,700 feet with a standard complement. This is very useful for businesses who buy these aircraft for fast, flexible transportation to a wide variety of locales and airfields. It is equally useful in Iraq.

King Air 350 vs. 200
(click to view full)

Aimed specifically at the special mission market, the Beechcraft King Air 350ER has extended endurance thanks to overwing engine nacelle fuel lockers and other modifications. They are able to fly out 100 nautical miles, perform a low altitude surveillance mission for up to 8 hours and fly back 100 nautical miles, and still land with over 45 minutes worth of fuel on board. Range for the 350ER version extends more than 33%, to 2,400 nautical miles.

Larger airframes and heavyweight landing gear allow them it to operate at a maximum gross takeoff weight of 16,500 pounds, vs. 15,000 pounds for a standard Beechcraft King Air 350. The King Air 350ER-ISR can accommodate up to 2 pilots and another 5 operators in its pressurized and heated cabin, with galley and lavatory facilities that can keep the crew alert and refreshed on those long surveillance missions.

The 350ER-ISRs have a in-class conversion that gives them 360 degree radar surveillance capability, but the radar can also be removed without impairing the plane's commercial value. The integrated sensor suite includes long-range cameras and infared to detect, track, classify and identify surface contacts. These capabilities can also be turned to limited maritime patrol, via long-range ship detection and imaging, and identification of small ocean targets in high sea states.

According to an article in the Long War Journal, Iraq's King Airs will be fitted with 2 wing hardpoints, which can accommodate Hellfire laser-guided missiles or DAGR laser-

guiderocket pods. This armament is comparable to the USAF's MQ-1 Predator UAVs.

RU-38B Twin Condor
(click to view full)

Akternatives to the IqAF's choice did and do exist. Unlike the MQ-1/9 Predator family of UAVs, King Airs cannot stay aloft for over 20 hours. On the other hand, they offer a wider

field of view, the ability to carry more electronic surveillance equipment than Predator family UAVs, crash far less often than UAVs, are exportable with fewer ITAR issues than an MQ-1 or MQ-9, can be used for light transport and resupply duties in an emergency, and offer pilots an easy step to flight certification once basic flying training is complete.

King Airs also lack some of the features present in dedicated reconnaissance aircraft like the Schweizer RU-38B Twin Condor. On the other hand, they offer more comfortable crew accommodations for long flights, service support that benefits from sizeable civilian and military fleets, and commonality with US military King Airs serving in theater for joint operations and support.

Contracts and Key Events

Civilian 350
(click to view full)

Sept 30/08: Hawker Beechcraft Corp. of Wichita, KS receives a firm-fixed-price contract for $10.5 million, in exchange for 5 King Air 350 Extended Range (ER) Intelligence, Surveillance, and Reconnaissance (ISR) aircraft; 1 King Air 350 Light Transport Aircraft; plus spares and contractor logistics support. This is a foreign military sale to Iraq. At this time $2.9 million has been obligated (FA8620-07-C-4010).

The listed amount strongly suggests a long-lead parts contract, in preparation for the order that will pay for the rest of the aircraft and systems. In 2002, the average price of a civilian King Air 350 was about $6 million each.

Sept 29/08: Iraq's Defence Ministry announces that it has bought 12 new U.S.-built reconnaissance planes. This is true. March 2007's 6 aircraft (5 350ER-ISR + 1 transport) order, plus the current 6 aircraft order (see above) equals 12 aircraft. AP, via USA Today.

Feb 27/08: The USAF announces that IqAF pilots from its 3rd Squadron in Kirkuk recently took the controls of a IqAF King Air 350 for the first time. The aircraft will initially be used for training and VIP transport, but future aircraft will add ISR flights. In a recent mission featuring a different aircraft type, an all-Iraqi crew spotted several terrorists manufacturing improvised explosive devices land mines. The crewmembers alerted Iraqi police, who arrived on scene soon after.

Dec 28/07: The IqAF receives its first King Air 350, in a ceremony. The initial aircraft is not fitted with sensors, and will be used for light cargo, VIP and training before the other 350s arrive. Deliveries of additional King Airs with ISR suites are scheduled to begin in about 4 months.

USAF Brig. Gen. Bob Allardice is the Coalition Air Force Transition Team commander. US DSCA release | MNF-I release (same).

March 6/07: Raytheon Aircraft company (now Hawker Beechcraft) announces a $132 million Foreign Military Sale to the Iraq Air Force. The USAF's Aeronautical Systems Center will manage the contract for 5 Beechcraft King Air 350ER Intelligence, Surveillance, and Reconnaissance (ISR) aircraft and one Beechcraft King Air 350 light transport aircraft.

This contract will lay the foundations for the IqAF's ability to field and use the King Air 350ER-ISR. It includes the integration of various electronic sensors, communications equipment, and defensive systems; along with fixed and portable ground station infrastructure, training, and spares and support. Deliveries will begin in late 2007 and, if all planned options for additional ISR and light transport aircraft are exercised, continue into 2010. RAC/Hawker Beechcraft release [PDF].

September 27/06: The US Defense Security Cooperation Agency announces [PDF] Iraq's formal request to buy 24 Beechcraft King Air 350ER surveillance aircraft, plus 24 more light transport aircraft which will either be King Air 350ERs or Polish PZL Skytruck STOL planes; as well as associated equipment and services. The total value, if all options are exercised, could be as high as $900 million, and items include:

- 24 King Air 350ER for Intelligence/Surveillance/Reconnaissance role. Each aircraft will be equipped with an L-3 Wescam MX-15 Electro Optics/Infrared (EO/IR) system, plus 1 of the following Synthetic Aperture Radar(SAR/ISAR)/Inverse Synthetic ground scan radars: APS-134 Sea Vue or APS-143 Ocean Eye or RDR-1700 or Lynx II (APY-8) or APS144 or APY-12 Phoenix.

- 24 Data Link Systems (T-Series Model-U or T-Series Model-N or ADL850 or TCDL or BMT-85). Their usefulness for a reconnaissance aircraft that must share its findings is obvious.

- 24 King Air 350ER or "PZL M-18 Skytruck" [sic] Aircraft for light transport role. Actually, the Skytruck is the PZL M28. the M18 Dromander is an agricultural sprayer aircraft, which Saddam's air force would have found very useful but the current IqAF would not.

- 48 AAR-47 Missile Warning Systems. See DID article; these are widely employed by coalition aircraft and helicopters, and represent the most modern system available.

- 48 ALE-47 Countermeasures Dispensing Systems.

- 6,000 M-206 Flare Cartridges. To keep the ALE-47s stocked.

- 50 Global Positioning System (GPS) and Embedded GPS/Inertial Navigation Systems (INS). 48 plus 2 spares.

Also included: support equipment, management support, spare and repair parts, supply support, training, personnel training and training equipment, publications and technical data, U.S. Government and contractor technical assistance and other related elements of logistics support.