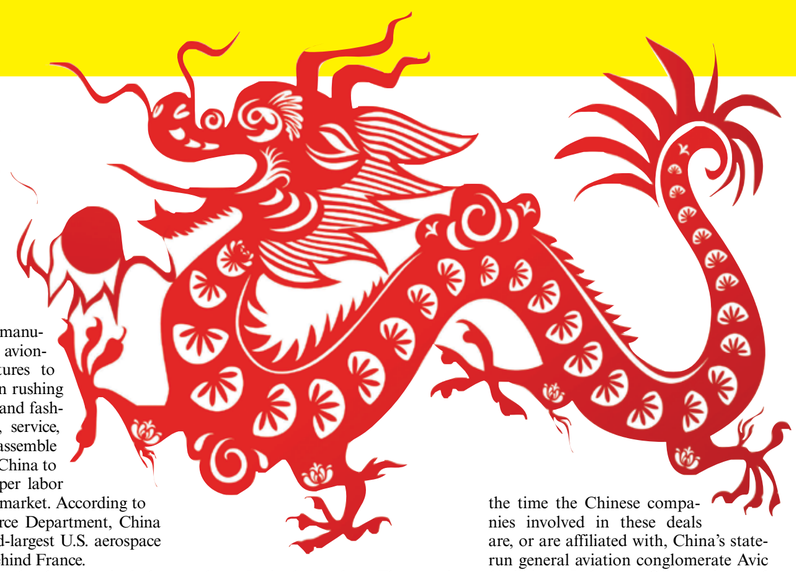
Enter the Dragon:

Chinese aerospace deals setting frenetic pace

by Mark Huber



Between now and 2030, Bombardier estimates that China will need 2,300 business jets, or roughly 20 percent of the current U.S. market. Boeing estimates that Chinese airlines will need an additional 5,000 aircraft during the same period.

Those are ambitious projections that assume much. Right now, movement of private aircraft throughout most of China remains tightly controlled and bureaucratically cumbersome. Throughout all of China in 2010 there were just 1,010 general aviation aircraft, an estimated 215 of them turbine powered. Chinese airlines currently operate approximately 800 aircraft, 49 percent of which are Boeing models.

Over the last several years the world's business jet, helicopter and related component manufacturers, from avionics to aerostructures to engines, have been rushing to open facilities and fashion deals to sell, service, fabricate and/or assemble their products in China to access both cheaper labor and a wide-open market. According to the U.S. Commerce Department, China is now the second-largest U.S. aerospace export market, behind France.

To date, this year has been particularly active, almost stunningly so, for China deal-making. Cessna, which already builds its 162 Skycatcher piston single in China, announced that it will assemble Caravan turboprops and the Sovereign and new Latitude jets there. The appetite to plant the flag in China extends beyond the airframers. Training companies, completion centers and even aircraft fuelers are all frequent fliers to China in search of the art of the deal.



DAVID McINTOSH

Embraer brand ambassador Jackie Chan and (to the film star's right) Ernest Edwards, president of Embraer Executive Jets, cut the ribbon on Chan's new Legacy 650. The jet's livery includes his own logo on the tailfin.



DAVID McINTOSH

Scott Ernest, Cessna Aircraft president and CEO; Wang Yawei, Avic Aviation Techniques president; and Shi Lei, head of the Chengdu investment promotion commission, explain Cessna's plans to manufacture aircraft in China. That is only the beginning, as the Avic president announced China's plans to develop its own business jet.

The Chinese government requires that any company seeking to enter its market provides technology transfer or "offsets" that pose both reward and inherent risk. As the U.S.-China Economic and Security Review Commission warned in its 2010 report to Congress, "In the near term, U.S. aviation manufacturing firms stand to benefit from increased aviation exports to China. However, as China's aviation manufacturing firms improve, U.S. aircraft and aviation component manufacturing companies will likely face increased competition from these aviation firms in China's domestic, third-country and U.S. markets."

The offsets are usually part of a joint venture that is typically structured as a three-way partnership among the foreign company, a Chinese company–generally government-owned and the local or provincial government where the joint venture is domiciled. Most of the time the Chinese companies involved in these deals are, or are affiliated with, China's state-run general aviation conglomerate Avic (Aviation Industry Corporation of China), or its commercial aviation conglomerate Comac (Commercial Aircraft Corporation of China). For example, when Cessna announced its intention to assemble Caravans in China, the plan was built on a joint venture among it, Avic's Caiga (China Aviation Industry General Aircraft Co.) unit and the Shijiazhuang municipal government.

The U.S. government is officially encouraging these deals. The U.S. Trade and Development Agency (USTDA) initiated the U.S.-China Aviation Cooperation Program in 2004 to expand policy, technical and commercial cooperation. At last year's U.S.-China Aviation Summit in Washington, Acting U.S. Commerce Secretary Rebecca Blank proclaimed, "Ultimately, our success helping China meet its aerospace goals will mean more jobs here at home."

Chinese officials have been fairly transparent about their intentions. At the Asian Business Aviation Conference & Exhibition (ABACE) this year, a senior Avic executive announced China's ambition to develop home-grown business jets. "We can't allow only Western companies to sell aircraft in China. We want this business, too," said Wang Yawei.



FlightSafety and Gulfstream opened a training center in Hong Kong for operators of the G450 and G550.

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To date, only one Chinese aircraft would appear to fit that bill: the long-delayed ARJ21. That aircraft resembles the McDonnell Douglas MD-95/Boeing 717 twinjet airliner (U.S. production of which concluded in 2006) and will be used primarily for regional airline service in China, but could easily be developed into a business jet. It is being made from tooling abandoned by MD in China two decades ago after a joint venture to manufacture the aircraft there failed to materialize.

Offset Required

For the most part, OEMs seem unconcerned that the flood of aerospace offsets being funneled into China stands to lead to the widespread Chinese counterfeiting and copying that have plagued Western manufacturers of everything from handbags to consumer electronics and even whole automobiles. U.S. Treasury Secretary Timothy Geithner publicly complained last year, "They [the Chinese government] have made possible systematic stealing of intellectual property (IP) of American companies and have not been very aggressive to put in place the basic protections."



Comac's ARJ21 is set to complete certification by year-end and, if reconfigured as a business jet, would compete in the same market segment as Bombardier's Global 5000.



Cessna will build midsize bizjets such as the Citation Sovereign in China as part of a joint venture with Avic.

However, during a call with analysts earlier this year, Textron (parent of Cessna and Bell Helicopter) CEO Scott Donnelly downplayed the risk to airframers with Chinese operations. "I think that in our case, our industry, our kind of products, this is not an issue to worry about. You're much better off being in the market and participating in the market than thinking you can avoid that market and somehow not worry about IP by taking that strategy. You're more susceptible to having intellectual property issues if you're not there and participating in the market."

What China can't gain through offsets, it appears willing to buy outright. At this writing, Superior Aviation Beijing, a company that already owns U.S.-based Superior Aviation Parts and Brantly Helicopters, is in negotiations to buy Hawker Beechcraft, currently operating under U.S. bankruptcy protection laws. Over the last several years, Chinese companies have taken outright ownership of lightplane maker Cirrus, Teledyne Continental Motors and kitplane company Glasair, and it has acquired the design rights and foreign distribution to Epic Aircraft's flock of prototypes. How well these acquisitions work out financially for both the acquired and purchasing companies largely remains to be seen.

One thing is not in doubt: The flood of Chinese aviation deals will continue. ❑

2012 PROVES A BANNER YEAR FOR WESTERN FIRMS IN CHINA

Airbus

In August, Airbus delivered the 100th A320 assembled in China under a joint venture with the Tianjin Free Trade Zone (TJFTZ) and Avic, the two parties of the Chinese consortium that hold a 49-percent stake in the Airbus Final Assembly Line China joint venture that was established in 2005. This year Airbus also signed an agreement to continue the joint venture beyond its current expiration date in 2016.

Bell Helicopter

Bell Helicopter signed a memorandum of understanding (MOU) on June 4 to open an authorized flight training school in China. Bell will partner with Guanchen Aviation, which already manages an established Civil Aviation Administration of China-approved flight training school in Anyang, China. The new school will be based in Anyang and provide factory-approved initial and recurrent type training for Bell 206L and Bell 407 pilots. Over time, the school could expand to offer training in more Bell aircraft types. Bell has a long history in China. Airframes for the Bell 430 were made by Hafei Aviation in Harbin.

Boeing

Boeing is the largest purchaser of Chinese-made aviation parts, on which it spends hundreds of millions of dollars annually. More than 6,000 Boeing airplanes have parts and assemblies made in China. In March, Boeing and Comac signed an agreement to create a jointly funded Boeing-Comac Aviation Energy Conservation and Emissions Reductions Technology Center in Beijing and to exchange market forecasts. The facility opened in August.

Bombardier

Bombardier signed a variety of new agreements with Chinese entities this year. Bombardier and Avic Leasing signed an MOU in February covering financing of commercial aircraft inside and outside China. In March, Bombardier signed a cooperation agreement with Comac concerning commonalities on Comac's new C919 and Bombardier's CSeries single-aisle jets. This includes cockpit, electrical system, aluminum lithium alloy standards (fuselage skin) and customer service standards and assets. In April, Bombardier opened a new office in Shanghai for coordination, marketing, sales and support of its commercial and business aircraft in China and north Asia. More than 80 Bombardier-produced aircraft are currently operating in China.

Cessna

Cessna announced several deals with Avic in March. The two companies will establish joint ventures in China to develop a nationwide service network and other general aviation businesses. Avic unit Avic Aviation Techniques (AAT) and the Chengdu government will establish a joint venture with Cessna to codevelop and produce a "large-class" business jet as well as assemble Citation Sovereigns and Citation Latitudes for delivery in China. The first delivery of a Chinese-built Sovereign is scheduled for next year. Chinese-built Latitudes will follow after certification and entry into service in the U.S., now scheduled for 2015. In May, Cessna signed a deal with Avic's Caiga and the Shijiazhuang municipal government to assemble and support Caravan turboprops sold in China. Avic subsidiary Shenyang Aircraft currently manufactures the Cessna 162 Skycatcher in Shenyang for all markets.

Dassault Falcon

Dassault Falcon announced in September that it is establishing a regional customer service headquarters in Beijing to provide parts, warranty, technical and operational assistance. The company is also launching Dassault Falcon Aircraft Services China, in cooperation with Shanghai Hawker Pacific at Hongqiao International Airport in Shanghai, which will be staffed by experienced Falcon technicians. In March, the CAAC granted a Part 145 approved maintenance organization (AMO) certificate for the facility as well as Part 145 approval for the Falcon 7X. Approvals for the Falcon 900LX and the Falcon 2000LX are pending.

To further bolster its service capabilities in the region, Dassault Falcon and Aerospace Products International (API) have expanded their logistics services agreement. API's Shanghai distribution center will provide parts logistics services for all Falcon needs, including AOG events, in China and surrounding markets. API will stock spare parts in its warehouse in Shanghai and will provide import and export services, customs clearance and parts dispatch into China and surrounding countries. Dassault Falcon expects 24 Falcons to be operating in China by year-end.

Embraer

In June, Embraer signed a deal to build Legacy 650 executive jets for delivery in China at its Harbin Embraer Aircraft Industry joint venture in Harbin. The joint venture is a partnership between Embraer and Avic's Harbin Aircraft Industry. It was formed in 2003 to construct Embraer ERJ 145 regional jets for delivery in China. Today, Embraer claims a 76-percent share of the Chinese RJ market. The OEM established its first office in China in 2000. In 2010 it formed Embraer China Aircraft Technical Services to provide logistics, parts sales and consulting services regarding technical issues and flight operations for its fleet in China.

Eurocopter

In August, Eurocopter signed a deal to build a completion center for its Ecureuil(AStar)-class helicopters in Tianjin as part of a joint venture with the Tianjin Free Trade Zone. Center work could be expanded to include other Eurocopter types in the future.

Eurocopter currently claims a 40-percent market share in China, with approximately 180 helicopters sold to Chinese operators. The company created Eurocopter China in 2006 to support its product line there and has bases in Beijing, Shanghai, Shenzhen, Harbin, Chengdu, Wuhan and Hong Kong. Eurocopter codeveloped its new EC175 medium twin with Avic's Harbin Aircraft Industry Group.

ExecuJet Aviation

In August, Switzerland's ExecuJet Aviation and Tianjin Haite received Part 145 maintenance approval from the Civil Aviation Administration of China (CAAC) for their MRO joint venture at Tianjin's Binhai International Airport in northern China. The MRO facility supports most Bombardier business jets and is expected to add other types in the near future.

FlightSafety

In February, FlightSafety International (FSI) and Gulfstream Aerospace opened a learning center in Hong Kong in cooperation with Cathay Pacific Airways to serve Asian operators of the G450 and G550. It is equipped with the level-D G550 full-flight simulator, convertible to a G450, as well as classrooms and briefing rooms, and offers initial and recurrent flight and maintenance training.

Greenpoint Technologies

Greenpoint Technologies, a bizliner completion center based in Kirkland, Wash., signed an MOU in June with Aircraft Maintenance and Engineering Co., Beijing (Ameco Beijing) in support of single-aisle and widebody executive jet completions in China and the region. Ameco was established as a joint venture between Air China and Lufthansa in 1989 to provide MRO and completion services.

Gulfstream

Gulfstream will open a new service center at Beijing Capital International Airport this year as part of a joint venture with Beijing Capital Airlines (Deer Jet) and Grand China Aviation Technik (GCAT). The Civil Aviation Administration of China (CAAC) is expected to issue Part 145 approval for the new maintenance, repair and overhaul (MRO) center this year. Deer Jet operates 26 Gulfstream aircraft and claims to be China's largest executive charter operator. Gulfstream has had a maintenance team based in Beijing since May 2010. GCAT is an experienced airliner MRO facility based in Beijing and is providing the main, 82,000-sq-ft hangar for the new venture. *–M.H.*

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