

Market Analysis: China's helicopters

Alud Davies By Alud Davies
September 20, 2017 12:48

Social media
Share this article

f t g+

Print this article



Although helicopter usage in China has largely been limited by tight government controls of airspace and a lack of infrastructure to support them, recent mega orders by Chinese customers show a willingness to grow, and a belief that the operating environment will soon be changing.

There are two main issues facing helicopter usage in China. Firstly, the country's air force retains tight control of its airspace. While this affects all types of aircraft operations, it has had the biggest effect on helicopter operations in the airspace below 3,000 metres. Secondly, there is a lack of infrastructure to support helicopter operations.

But despite these controls, the Chinese helicopter fleet is growing. According to Asian Sky Group (ASG), a Hong Kong based aviation consultancy, the fleet of turbine helicopters on the Chinese mainland jumped up by 50% between the end of 2013 and the end of 2014. This is in contrast to the fleets in Hong Kong, Macau and Taiwan, which make up greater China, where the fleets remain largely unchanged.

This growth can be seen as an indication of changing attitudes within the Chinese government, which now sees general aviation as a focus area, partly due to a lack of local commercial airline pilots. By opening up the airspace and building the infrastructure to support it, the government hopes that it will encourage more people to take up flying, eventually becoming the next generation of airline pilots.

While the air force still controls much of China's airspace, there have been several small-scale tests around opening this up before, with the first of these centered around Haikou, Hainan Island, in 2010. During the test, airspace under 1,000 metres was classed as "Low Airspace" and split into different sections: areas under surveillance, areas under control, and areas where, after submitting a valid flight plan, users can fly freely.

Following successful completion of the trials, the Civil Aviation Administration of China (CAAC) identified six further cities in central, north-eastern and southern China to take part in another round of tests during 2011. These trials took place around the airspace of Hangzhou, Kunming, Ningbo, Qingdao, Tangshan and Xi'an.

China is now working towards opening its airspace between 1,000 and 3,000 metres. During a May 2016 meeting of the State Council of The People's Republic of China, presided over by Chinese Premier Li Keqiang, it was agreed to open up more low-altitude airspace, as well as streamlining approvals for flight missions.

Once the airspace does open up, it will not only benefit helicopters but business, commercial and general aviation as well.

China's Helicopter Fleet

In its 2016 Helicopter Fleet Report, ASG says 495 civil turbine helicopters were in service in China at the end of 2016. Greater China had 543.



helite
internati
HELICOPTER INVESTOR
3-5 OCT 20

TAKE PART IN
LEADING RC
EVE

REGI
FOR

NEWSLETTER SIGN-UP

Sign up for the Heli
email

email address

Subscribe

FOLLOW US ON TWITTER

This is a growth rate of 19%, making it the largest growing country for helicopters in the region. ASG says this growth is largely due to 20 new general aviation operators appearing on the mainland.

The largest population of helicopters is concentrated in the southern province of Guangdong. This is a highly populated area, with megacities that have tens of millions of inhabitants, and is also where the offshore fleet of helicopters that support the oil and gas industry is based. Overall, Guangdong has close to 20% of the total Chinese fleet based in or operating from the province. A much lower number, almost 4%, operates in similar roles from eastern China's Shandong province.

Outside Guangdong, helicopters are concentrated in the largest cities, with a heavy weighting towards eastern China. Unsurprisingly, Beijing and Shanghai have the largest fleets, with 13% operating in the capital and a further 9% based around China's largest city.

Airbus Helicopters has by far the largest share of the helicopter market on the mainland, with just over 38% of all helicopters. Bell has the second largest share, with just under 12%.

Pre-owned additions, deliveries and deductions in 2016

ASG says 91 new helicopters were delivered into China in 2016. Airbus Helicopters had the largest share of these, with 39% of all deliveries – 35 helicopters.

The second largest share was for Leonardo Helicopters, whose 19 deliveries gave it 21% of the market. Leonardo has invested heavily in China in recent years, and has built up a large support warehouse in Shanghai.

There were 12 pre-owned additions to the fleet during 2016, almost half being Sikorsky aircraft.

Mega Orders

Airbus is likely to keep its position as the leading helicopter manufacturer in the country, thanks largely to an agreement signed in 2016 to build a final assembly line in Qingdao, Shandong province. The joint venture, between Airbus Helicopter and Qingdao United General Aviation Company, will have the capacity to assemble up to 18 H135s a year, although the line could be expanded if needed. To get the ball rolling, the agreement was an order for 100 H135s.

Airbus Helicopters wasted no time and broke ground on the new facility in May, aiming to have it up and running in 2018. The first helicopter is due to be rolled out in mid-2019.

It was not the first time that Airbus Helicopters has received an order for 100 helicopters in China. In 2015, China Minsheng Financial Leasing (CMIFL) placed an order for a mix of H125 and H130 aircraft. CMIFL, a division of China Minsheng Investment Group, plans to take delivery of the H125s in multirole configurations, with the H130s fitting out for medivac missions, and intends to offer the helicopters with finance solutions attached.

A similar deal will see Bell opening up a facility in China as well. The joint venture with Shaanxi Aviation Industry Development Group Co Ltd (SAIDC) will see a facility established at the Xi'an National Civil Aerospace Industrial Base in central China's Shaanxi province. Its main purpose will be maintenance, re-assembly and return to service of Bell helicopters, although Bell says that it will look at extending the capabilities later. Alongside the announcement of the joint venture was an order for 100 Bell 407GXPs, the first of which was delivered this month.

It was not the only large order that Bell has taken in for Chinese customers, though. In 2016, Reignwood Investment ordered 10 Bell 505 Jet Ranger X, and then added another 50 aircraft to the order less than six months later.

The Airbus Helicopters H135 and Bell 407GXP/505 Jet Ranger X are all classed as light helicopters. Although the roles of the helicopters ordered from both manufacturers have yet to be announced, it is likely that some will end up in EMS or law enforcement roles. The Bell 407GXP order hints at this, saying that the helicopters will be used by government and government-related customers.

Helicopter roles

Unsurprisingly, as the market has yet to fully mature, the majority of helicopters in China operate in multi-mission roles, with ASG saying there were 316 aircraft, roughly 58%, being used in this way at the end of 2016.

The second largest share of helicopters is in the offshore segment, where roughly 9% operate. The largest helicopter operator in the country is currently CITIC Offshore, which had 68 aircraft in its fleet at the end of 2016. Rather than having a few different types in its fleet, CITIC Offshore operates 13 different aircraft types spread across different categories.


Perhaps the biggest sign that the Chinese market has yet to mature is the number of corporate or privately owned helicopters. Both categories combined do not reach double figures. ASG says there were six corporate and three privately-operated helicopters in China by the end of 2016.

One of the main growth areas has been in the EMS sector, which, according to the ASG data, more than doubled between 2013 and 2016 to 26 aircraft. By comparison, according to data from the Federal Aviation Administration, there are more than 850 dedicated EMS helicopters operating in the US.


Locally built helicopters

China's own helicopter manufacturers have been taking big strides in recent years. Harbin, a division of Avicopter, which in turn is a division of the Aviation Industry Corporation of China (AVIC), has been producing licensed versions of


Tweets by @HelInvest

 Helicopter Investo
@HelInvestor


Market Analysis: China's he
helicopterinvestor.com/artic

 Helicopter Investo
@HelInvestor

GAMA: Deliveries up, mark
helicopterinvestor.com/artic

 Helicopter Investo
@HelInvestor

JSSI: flight hours up, sales
helicopterinvestor.com/artic

 Helicopter Investo
@HelInvestor

HM Coastguard introduces
helicopterinvestor.com/artic

Embed

IN THE NEWS

AgustaWestland Air Ai

Airbus Helicopters Am
AS350 B3e AW119Kx

AW189 Bell Bell 40

Bell 429 Bell 505 Jet R

Bell 525 Relentless Be

Bond Aviation Bristow

Bristow Helicopters Ci

EC135 EC145 EC17

Ed Washecka EMS

Eurocopter Grandblew

HelixExpo 2014 HelixEx

Lease Corporation Interna

MD Helicopters Micro

Milestone Aviation Mil

Russian Helicopters R

Search and Rescue Sif

Waypoint Leasing

Eurocopter (now Airbus Helicopters) helicopters in China for several years. These have been built largely for different air forces around the world, but in recent years they have been using the Avicopter name for civilian helicopters.

One of the more recent of these is the Avicopter AC312, which is a development of the Harbin Z-9, itself a licensed version of the Eurocopter AS365 Dauphin. Announced during 2015, the helicopter flew for the first time in August 2016.

Introduced a few years earlier was the larger AC313, which can trace its lineage back to the Aérospatiale Super Frelon, via the Harbin Z-8. The largest helicopter built in China so far, the AC313 is powered by three Pratt & Whitney engines. It can carry up to 27 people, and fly for a maximum of 900km.

Avicopter currently manufactures one more helicopter using the AC designation – a small piston model designed primarily for the growing owner/pilot market.

The future

Asian Sky Group forecasts that the total Chinese fleet will grow by up to 15% by the end of 2017, and Airbus has already said that China is its biggest market for new orders.

These will only increase as the airspace opens up and more infrastructure to support operations is built. Predicting just how big the Chinese fleet will be is an almost impossible task. However, one only needs to see how quickly, and how big, the commercial aircraft fleet has grown to see just how important the market will be for the helicopter industry.

Like 3

Tweet

G+

Alud Davies

By **Alud Davies**
September 20, 2017 12:48

TAGS: Airbus Helicopter Asian Sky Group Bell 407GXP Bell Helicopter
China Shaanxi Helicopter Sikorsky

Social media

Share this article

f t g+ in

Print this article Send e-mail