

Expert: Drone to soar on market

China is the largest exporter of military drones today, and it is ready to place a new model on the international market.

The TYW-1, developed by Beihang University in Beijing, one of China's top institutes for science and technology, is an unmanned aircraft for reconnaissance and combat based on the BZK-005 high-altitude, long-range reconnaissance drone, which the university also developed.

The BZK-005 is widely used by the People's Liberation Army and has performed many operations, foreign media have reported.

The drone is to make its maiden flight in September and will be placed on the international market in 2018, according to Wang Jianping, deputy general manager and chief designer at Beihang Unmanned Aircraft System Technology.

The firm was set up by Beihang University, formerly known as Beijing University of Aeronautics and Astronautics, to develop and market drones.

"We aim to tap the markets in neighboring nations, as well as in Southeast Asia and the Middle East," Wang said in an exclusive interview.

This would be the first time a Chinese university sells large unmanned combat aircraft on the international market. Northwestern Polytechnical University in Xi'an, Shaanxi province, has sold small, unarmed military drones to foreign buyers.

The best-known Chinese military drones are the Wing Loong family, made by Aviation Industry Corp of China, and China Aerospace Science and Technology Corp's CH series.

CH drones have been sold to military users in more than 10 countries, while the Wing Loong II, which made its maiden flight in late February, has received the largest contract ever for a Chinese drone made for export.

Though facing competition, Wang said he has confidence in the TYW-1 because it is based on the BZK-005, which has proved itself with an outstanding service record.

"It's fair to say the BZK-005 is the best aerodynamic design in China, as it has the best lift-to-drag ratio of the drones of its kind," he said. Lift-to-drag ratio is a key indicator of an aircraft's capability.

"Taking advantage of the good design of the BZK-005, the TYW-1 will be able to fly for about 40 hours. With a maximum takeoff weight of 1,500 kilograms, it will be capable of carrying six missiles or bombs with a total weight of 300 kg."

Another edge of the TYW-1 is its high level of automation. Wang said the drone can autonomously take off and land, and will be able to track a target

and strike without manual control.

“It’s very easy to learn how to operate this drone. It will take only a month to train an operator,” he said.

The TYW-1 also will be an open and modular platform, which means it can use equipment and weapons developed not only by Chinese companies, but also by other nations, he added.

Wang Ya’nan, editor-in-chief of Aerospace Knowledge, said the TYW-1 will have bright market prospects for two key reasons.

“First, its predecessor, the BZK-005, has a good reputation in this field through its performance in actual operations,” he said. “Second, the drone’s modular design will give users a wide range of options when it comes to the procurement of equipment and weapons, enabling them to choose the most suitable products.

“In addition, its long endurance in the sky will be attractive to nations that must monitor vast territorial waters.”