Rotating rocket engines can help aircraft reach speeds of Mach 9

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In the test, the drone was equipped with a rotary rocket engine (RDRE), helping the vehicle reach subsonic speeds. This engine will be equipped by the company for future super-fast commercial jets.

The drone used in the test is 2.4 m long and weighs 136kg. Before deploying the vehicle and activating the RDRE, the drone was raised to an altitude of 3,658 m using an Aero L-29 Delfín aircraft.

The drone flew 16 km at a speed of Mach 0.9 (more than 1,111 km/h) using 80% of the RDRE's available thrust. The success of the flight demonstrated the feasibility of rotary rocket engines and associated flight systems.

A representative of Venus Aerospace said that rotary explosive rocket technology is 15% more efficient than conventional rocket engines.

Venus Aerospace's goal is to develop a commercial supersonic aircraft that can travel at Mach 9 (11,000 km/h), able to fly from London to San Francisco in one hour.

Similar to the Concorde, the steady detonation of the RDRE would cause the aircraft to emit extremely loud noise because the repeated rapid acceleration cycles based on continuous detonation could place additional stress on the engines and supporting structures. accompanying aid.

Currently, Venus Aerospace plans to further test the RDRE engine with a larger drone that can reach speeds 5 times faster than sound (6,200 km/h).