



RCV Engines Limited

# NEWS RELEASE

6<sup>th</sup> August 2007

## Honeywell awards RCV contract for development and supply of advanced UAV engine for flight trials

**Testing of a heavy fuel micro-sized UAV demonstrator engine based on RCV Engines Ltd's patented rotating cylinder valve (RCV) technology has exceeded customer performance expectations. Intended for application in Honeywell's backpack-sized Micro Air Vehicle (MAV), the highly promising performance of the demonstrator was instrumental in Honeywell's decision announced today, to award RCV Engines Ltd the contract to further develop the engine design for the MAV and to deliver prototype units for flight testing**

The MAV autonomous surveillance aircraft has been developed as part of the US Defense Advanced Research Projects Agency (DARPA) MAV Advanced Concept Technology Demonstration programme. The vehicle is small enough for a foot soldier to carry on his/her back and is designed to provide soldiers with improved situational awareness without exposing them to enemy fire through forward- and downward-looking video cameras that relay information to a remote ground station video terminal.

With its high power to weight ratio and heavy fuel capability, RCV technology is ideally suited to micro sized unmanned aerial vehicle applications such as Honeywell's MAV. In February 2007 RCV Engines delivered a demonstrator engine to Honeywell for initial ground testing. This twin-cylinder, 'boxer' configuration 60cc engine exceeded its targeted performance, delivering a peak power of over 4.6 horsepower and running at 8400 rev/min.

Under the contract announced today RCV Engines will use finite element analysis to further develop the thermal performance of the engine, refine the design to extend its service life, implement a new fuelling system and supply 4 engines for flight trials. Crucially, RCV aims to reduce the weight of the engine by a further 10 per cent compared with the proof of concept demonstrator.

*"The RCV engine exceeded our expectations", said Honeywell unmanned aerial systems program manager, Vaughn Fulton. "It's compact, quiet and does not appear to have a smoke signature when running. RCV is on the verge of making it a reality: it has a clear and executable path that will mature this engine to fulfil the requirements of small UAVs such as the MAV".*

*"Micro-sized unmanned aerial vehicles are an ideal application for our patented rotating cylinder valve technology", said RCV managing director, Eric Hill. "We are extremely pleased to have had the opportunity to prove the potential of RCV technology for Honeywell's MAV and look forward to further optimising the design and to delivering series prototypes for flight testing."*

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## NOTES TO EDITORS:

**RCV Engines Ltd** has developed its patented Rotating Cylinder Valve (RCV) internal combustion engine technology since its formation in 1997. This revolutionary technology provides distinct potential benefits over conventional two- and four-stroke engines in terms of increased performance, reduced emissions and improved fuel consumption. RCV technology is particularly well suited to small engine applications including motorcycle, forest and garden, and Unmanned Aerial Vehicles (UAVs). The company has exported engines to over 50 countries and has a customer list which includes many prestigious clients. It has also engaged in development programmes with a wide range of customers who wish to incorporate the benefits of RCV technology on a licensed basis in their own products. RCV Engines Ltd is a well resourced technology-focused company which boasts a team of highly qualified automotive design and production engineers, as well as advanced manufacturing and engine development facilities at its south of England location at Wimborne, Dorset. The company currently manufactures a range of 6 model aircraft engines from 9.5cc to 23cc with over 10,000 operating worldwide. RCV Engines Ltd is privately held and is fully independent.

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**Images:** A selection of images relating to this press is available for download from [www.rcvengines.com](http://www.rcvengines.com)

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