Aeryon Labs Inc.

Aeryon Labs is an industry and technology leader in the design and manufacture of small Unmanned Aerial Systems (UAS), serving civil and military customers and commercial businesses.

Headquarters	575 Kumpf Dr., Waterloo, Ontario, N2V 1K3
Year Established	2007
NAICS	334511 - Navigational and guidance instruments manufacturing
Employees	91
Major Expansions	N/A
Exports	US, Australia, Aisa-Pacific, EU
Parent Company	FLIR Systems
Other Locations	N/A

I spy with my little eye, what humans cannot see. I soar where humans cannot walk. I capture with my special memory, the images humans cannot take. I am an Aeryon SkyRanger drone, created by Waterloo-based small Unmanned Aerial Systems (sUAS) manufacturer Aeryon Labs, Inc.

Aeryon dedicates itself to two main products, the Scout and the newer, more advanced SkyRanger. The company also manufactures supporting products such as cameras. Dave Kroetsch, President and CEO, emphasizes that these are high-end tools, not toys. It is not the kind of drone used for filming a friend snowboarding; the Aeryon SkyRanger is built for serious, industrial work in all weather conditions.

The Ontario Provincial Police (OPP) is a longtime client and fan. At the time of our interview, in fact, the OPP was using Aeryon's drones to monitor traffic at the PanAm games.

The systems are also used to map traffic accidents, allowing for a faster and more accurate response. The story goes that an officer was on dinner break when he received a call; he was able to map the accident so quickly thanks to an Aeryon drone that when he returned his dinner was still warm. What used to take hours; is now a matter of mere minutes thanks to Aeryon's technology.

At Aeryon, there is no typical customer. Public sector customers include public safety and commercial clients who seek aerial intelligence or monitoring. This can be surveyors and industrial users who use the drones to inspect towers and pipelines, agriculturalists in need of digital mapping, or our friends the Ontario Provincial Police.

An Aeryon Scout was even used in the Aleutian Islands of Alaska to monitor a Steller sea lion population. Thanks to the Scout's superior design, researchers could launch, operate and recover the drone in extreme Arctic weather and water conditions. The Scout captured over 60,000 images from afar without disturbing the sea lions, helping the American government better study and protect a beautiful marine species.

Aeryon's largest challenge in a market so big and with so many applications is focusing on select areas of expertise. After speaking with a range of potential customers, Aeryon's team developed a point and click drone that can operate in rain or snow. The engineers try to imagine themselves as operators in the field, and then design the controls and interface in the most user-friendly way possible.

With more than 50 percent of sales in the Middle East, Australia, China, Saudi Arabia, the United States and 30 other countries, Aeryon Labs recently netted a 2014 Export Ontario award. Aeryon typically enter a foreign market through reseller channels, although the firm occasionally sells directly as well. The executive team also attends many trade shows: "a crucial sales tool," says Dave Kroetsch.

Kroetsch is President & CEO, as well as co-founder of Aeryon. He has been involved with unmanned systems since 1996, during his University of Waterloo days. "In the early years of robotics," he recalls fondly, "GPS systems used to be the size of toasters." Kroetsch's passion for robotics and remote controlled planes continued through several tech positions. Seeing a gap in the market for commercial unmanned aerial systems, he started Aeryon Labs with Steffen Lindner and Mike Peasgood in 2007.

The company currently employs over 90 people, with a third in engineering, a third in operations and manufacturing, and the rest in sales and marketing. They employ many university graduates and a handful of PhDs with such impressive educational backgrounds as artificial intelligence, aerodynamics, propulsion systems, vision systems and electronics.

Aeryon partners with several local institutions, especially the University of Waterloo. A few students from Waterloo come to Aeryon each term through the co-op program, and Aeryon also funds research at the university. Another exciting partnership involves UTIAS, or the University of Toronto Institute for Aerospace Studies.

They wouldn't give up their Waterloo, Canada base for anything. "Waterloo is a great region to be in," says Kroetsch. "It's a start-up rich area, which really promotes entrepreneurship."

Canada's friendly regulatory environment gives Aeryon an edge over its many American competitors. Canadian drone laws provide Aeryon access to airspace, allowing the company to test and demonstrate the systems in a way currently more restrictive in the United States. The American government also classifies drones as military products and thus places heavier restrictions on exports, whereas Canadian export laws are much more flexible.

Their decision to continue manufacturing in Canada is not just born out of patriotic sentiments – it makes good business sense. "Because of the export rules around this technology, staying in Canada is very advantageous in the near and long term," says Kroetsch.

With such distinct Canadian advantage, Aeryon Labs aims to soar ever higher on the wings of success.

Update:

Aeryon has seen a number of positive developments since we last profiled them in 2015.

In 2016, following a large increase in demand for drone technology and an injection of $60 million in new capital from the investment firm Summit Partners, Aeryon expanded to a second facility in Waterloo, Ontario. This expansion brought the firm's total space from 30,000 to 70,000 sq. ft., allowing the firm to scale up its manufacturing and research and development initiatives.

The increase in demand for drone technology was underpinned by an expansion of an already-diverse set of commercial drone applications. In 2015, Aeryon partnered with Dejero Labs, a Waterloo-based technology firm, to develop a drone that could broadcast live HD video. Since then, Aeryon's drones have proved helpful in a number of emergency situations such as the Fort McMurray wildfire in 2016, the 7.8-magnitude Ecuadorian earthquake in 2016, and disaster response from Hurricane Irma in 2018.

In early 2019, Aeryon was acquired by FLIR Systems, a global leader in the production of thermal imaging technology. Aeryon's manufacturing and research operations have remained in Waterloo, where the firm has begun producing drones with integrated FLIR technology, making for a more comprehensive and specialized product. Dave Kroetsch believes that this acquisition will be beneficial for Aeryon and its employees, as being owned by FLIR will allow Aeryon to greatly increase the technical capacity of its products and expand its presence into global markets.