Vector’s CEO departs, rocket company pausing its operations [Updated]

Enlarge / In May 2018, Vector launched a full-scale prototype of the Vector-R rocket on a short flight.

reader comments

113 with 46 posters participating

Share this story

Saturday a.m. Update: Multiple former employees of the rocket company Vector in both California and Arizona have told Ars they were let go on Friday. Late Friday night, the company issued the following statement:

“In response to a major change in financing, Vector has had to pause its operations. A core team is now evaluating options to complete the development of the company’s Vector R small launch vehicle while also supporting the Air Force and other government agencies on programs such as the recent ASLON-45 award.”

Original post: Vector, a micro-launch company founded in 2016 to build small rockets for payloads of up to 60kg, may be in financial trouble, multiple industry sources told Ars on Friday. A spokeswoman for Vector did not comment on that. However, she did confirm the company has parted ways with its chief executive: “Jim Cantrell is no longer with Vector effective today. John Garvey has assumed the role of CEO.”

The company has been working on developing its Vector-R

vehicle and trying to prepare it for a suborbital flight this summer. In an interview in April, Cantrell told Ars that he hoped to fly an upgraded version, Vector-R B1003, on an orbital flight from the Pacific Spaceport Complex in Alaska before the end of this year. The financial difficulties have reportedly arisen just after Vector received some good news in the form of a launch contract from the US Air Force.

Money and rockets

Cantrell brought venture capital experience when he joined with veteran rocket scientist John Garvey in 2016 to found Vector. The Garvey Spacecraft Corporation had been working on prototypes for a small launcher, and together Cantrell and Garvey decided to found the new company to bring the rocket through its development phase and commercialize it.

The company's philosophy was pretty simple—satellites were getting smaller and smaller, and a low-cost rocket dedicated to sub-100kg payloads could offer a unique service. Today, these smaller payloads typically "share" rides to space on larger rockets and cannot count on a launch date. Instead of being treated as excess cargo, Vector sought to offer these small satellites the capability to launch within three months of demand into any desired orbit from Alaska or Cape Canaveral in Florida.

Originally, the company planned to begin orbital flights in 2018. As late as March of that year, Cantrell was still brimming with confidence. "My confidence level is 100 percent," Cantrell said at the time. "Not to pick on them, but we don't work on SpaceX schedules. We can't afford to run a business like that. We're not giving you schedules that we know we can't live with." (Cantrell has often played upon his SpaceX experience in media interviews, but sources at the company say he only worked there as a consultant to founder Elon Musk for a couple of months.)

Earlier this year, Cantrell cited several issues that had led to delays of the Vector-R launch. The partial government shutdown last December and January affected its operations, as did range closures at the Alaska spaceport for other tenants. Also, the rocket's autonomous flight-termination system, provided by an outside vendor, failed qualification tests. Then there were issues with the mass of the vehicle itself. The rocket's engines and their novel use of a liquid oxygen and liquid propylene fuel have worked as intended, but the fuel tanks were too heavy. So engineers had to re-work the vehicle to lower its overall mass.

A winnowing

The current setback comes as other companies are also racing to develop smallsat launchers—although few were quite as small as the Vector-R, which was powered by three LP-1 engines that produced a thrust of about 20,000 pounds and appeared to have a viable niche. It is widely expected that the dozens of competitors seeking to develop smaller rockets will see a funding crunch as some make it to the launch pad, and others do not.

Of these new space companies, only one, Rocket Lab, has successfully begun commercial operations. During a recent interview with Ars, Rocket Lab founder Peter Beck said there just weren't enough small satellites to go around to sustain more than a handful of small rocket companies.

"We're a pretty conservative bunch, and when you take that kind of approach to satellites, you end up at a point where there are really only enough for one or two small launch vehicles," Beck said. "I just don't see hundreds of launches available for many, many companies. I'd expect some pretty decent consolidation over the next year to 18 months."

https://arstechnica.com/?p=1549343