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Drones in Lamorinda

By Cathy Dausman



Weighing in at just 3 pounds, Mark Culpepper's quad copter is loaded with high-tech instrumentation. Photo Mark Culpepper

Look! Up in the sky! It's a bird ... it's a plane! No, it's a drone - that 21st century unmanned aerial vehicle quickly making its way into commercial and private sectors even in Lamorinda.

While drones are undeniably part of today's automation trend (drones made the cover of the August Popular Science magazine), their use falls where technology meets government regulation, and threatens personal privacy.

Simple safety issues regarding their flight remain as-yet unsolved. Peg Shasky of Moraga recently experienced a personal close encounter with a drone while driving. "I was on Moraga Road near Campolindo (high school) when a drone flew right in front of my windshield," she said. It hovered there a few moments before its operators, a group of young adults on the nearby soccer field regained control. Shasky considered confronting the drone operators, but decided instead to drive off.

"You keep hearing about" drones, said Tom Stack, a Lafayette resident and Coldwell Banker realtor. Stack said some people think of drones as a "war toy" and not as a real estate tool. He recounts his own recent experience with a drone during his college reunion in the South Bay. "This thing was floating over me. ... I'm not sure I liked that," he said. Yet Stack admits "in a few years it'll be the norm." He says drone photography gives real estate properties a certain "wow factor" - "so cool," he said.

Stack's co-worker Vlatka Bathgate purchased her own drone, a Parrot AR, online six months ago and has her husband fly it. She said her clients love having drone photos available. "The marketing of some properties really benefits from the perspective only a drone can provide," Bathgate said.

Both the Federal Aviation Administration and the Federal Communications Commission are monitoring drone use as it catches on - remote control frequencies used for the first person view (FPV) or unmanned aerial vehicles (UAV) fall within the amateur radio band and therefore require an FCC radio license to operate per Title 47, FCC Code of Federal Regulations Part 97.

Mark Culpepper, a local technology executive, has worked with drones over the last several years. He said personal drones "present an instant view of the state of your assets." Ten years ago Culpepper said a drone cost \$10,000; today a drone equipped with an optical camera can be purchased for about \$1,500, and other models are available for as little as \$300.

Culpepper's drone control interface is an iOS device and a tiny lithium battery allows the unit to be controlled from a distance of 500 meters. Flight life is approximately 25 minutes. His quad copter weighs just 3 pounds, has counter-rotating engines, an accelerometer, a gyro and GPS. "I don't see [drone use] slowing down," he said.

The drones, however powerful as tools, are also quite fragile. Culpepper curtailed his flight demo at a picnic when several boys began throwing rocks at his airborne drone.

Lamorinda police and fire professionals are well aware of the pros and cons of drone use. "We [already] have good access to both infrared and real-time video technology with the East Bay Regional Parks helicopters and CAL Fire helicopters," said Moraga-Orinda Fire District Chief Stephen

Healy. "I see the drone [being used] more for larger fires in remote, inaccessible areas," he said.

Lamorinda's Emergency Preparedness Coordinator Dennis Rein knows several drone operators in Lamorinda; he says drones are "one heck of a tool," but he is always cautious "when it comes to life-safety issues" and expressed concerns about the possibility of unrestricted drone use in airspace over a rescue site.

"We need to know who gets the airspace and what priorities are," Rein said.

Orinda Police Chief Mark Nagel thinks using drones to locate missing adults or children would be invaluable, but admits there is always the potential for invasion of privacy. "I guess it really depends on how it's being used," he said.

"The decision to field that type of equipment for either Lafayette or Orinda would have to be approved by the Sheriff," said Lafayette Police Chief Eric Christensen.

Moraga's Police Chief Robert Priebe said drone use "could be an excellent tool," but added he is not up to date on its legal ramifications.

Drone technology, said Culpepper, can be "interesting, fascinating, and disruptive," but it's still possible to lose [flight] control.

"They're not toys," he said.

Drone Information on the Web

The FAA and unmanned aircraft systems:

<https://www.faa.gov/uas/>

<http://www.computerworld.com/article/2602902/pressure-builds-on-faa-to-release-drone-rules.html>

<http://www.dailytech.com/Court+Rules+that+FAA+Cannot+Ban+Commercial+Drones+Dismisses+10000+Fine+for+Drone+User/article34468.htm>

<http://diydrones.com/profiles/blogs/how-long-will-unregulated-fpv-and-rc-last>



Realtor Vlatka Bathgate uses her drone to take spectacular photos of homes. Photo Andy Scheck

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