DRONING ON

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When starting my career in the early 90's, the technology at most plants was from the 70's era. We were using the old color comparators for chlorine and pH and some were using litmus paper. During the 90's, many water and wastewater plants were being overhauled and updated. Most notable was the introduction to digital instruments (chlorine, DO and pH), VFD and SCADA technologies coupled with smart phones.

It's the new millennium with more exciting new technologies. Enter the Drone, also referred to as UAVs (Unmanned Aerial vehicles). There are many types of drones, some with independent control while others use smart phones to control and capture video and photos. What are some uses for the new technology? The most obvious is inspecting water tanks, towers and standpipes. How about inspecting aerated lagoons, reservoirs, facility roofing and source water protection area patrol.

Where to purchase and how much do they cost? There are endless online venders and many of the brick-and-mortar stores stock a wide selection. Pricing can range from under $100 to several thousand dollars. It all depends on the type of equipment you desire (i.e., camera, control system, range etc.).

Take caution – Drones/UAVs fall under FAA 14 CFR part §107. How you use them will determine if you need a remote pilot certificate. There are a few common-sense rules to follow: "No person may operate a civil small, unmanned aircraft system unless it is in a condition for safe operation. Prior to each flight, the remote pilot in command must check the small, unmanned aircraft system to determine whether it is in a condition for safe operation. No person may continue flight of the small, unmanned aircraft when he or she knows or has reason to know that the small, unmanned aircraft system is no longer in a condition for safe operation".

"A remote pilot in command must be designated before or during the flight of the small, unmanned aircraft. The remote pilot in command is directly responsible for and is the final authority as to the operation of the small, unmanned aircraft system. The remote pilot in command must ensure that the small, unmanned aircraft will pose no undue hazard to other people, other aircraft, or other property in the event of a loss of control of the small, unmanned aircraft for any reason. The remote pilot in command must ensure that the small UAS operation complies with all applicable regulations of this chapter. The remote pilot in command must have the ability to direct the small, unmanned aircraft to ensure compliance with the applicable provisions of this chapter".

In summation. Drones or UAVs are probably one of the most useful tools at our disposal. They can safely document water tanks, towers, and standpipe conditions, relieving us from having to climb these structures or entry into hazardous areas.

For complete regulatory information you should refer to https://bit.ly/AquafactsRegulatoryInfo for operating rules. 💧💧💧