

# Bay Area Geophysical Society Seminar Series



**BAGS**  
BAY AREA GEOPHYSICAL SOCIETY

## Drone Geophysics Magnetics, EM, and More

Ron Bell – A Senior Geophysicist

*“The only living geoDRONEologist on planet Earth”*

International Geophysical Services, LLC – Denver, CO

April 29th, 2021 @ 5 PM PST -- Zoom Talk

### Abstract:

Utilizing drones to make geomagnetic measurements is now rather common although many who are working within this area know there is a lot more to be done. Predictably, commercially available drone electromagnetic (EM) systems are emerging and, equally predictably, within a few years these systems and others will become common place, as the cadre drone geophysical practitioners seek to take advantage of the unique qualities unmanned autonomously piloted aircraft bring to the enterprise of geoscientific mapping.

In this presentation, I will share a few of the lessons that I have learned during the four (4) years I have employed drones for magnetic and, more recently, EM data collection. I will conclude my presentation by opining on the future of drone geophysics.



Geonics EM61 Lite suspended from a DJI Matrice 600 Pro UAS

## Presenter's Bio:



To date, Ron has completed more than 40+ commercial drone magnetic surveys for a variety of objectives including but not limited to resource exploration (i.e. minerals, groundwater & O&G) and environmental subsurface site characterization. He is presently conducting field trials of a shallow frequency domain electromagnetic system and a deep looking time domain EM metal detector. In 2014, Ron first explored using drones for geoscientific mapping. By 2018, he became “the only living geoDRONEologist (pronounced geo-DRONE-ologist) on planet Earth “. He is globally known as an energetic advocate for the use of small unmanned aerial vehicles (sUAS) for collecting of geophysical and remote sensing data in the service of geoscientific mapping. Awarded a BS in Applied Geophysics from Michigan Technological University in 1976, he enjoyed an active and productive career applying ground, airborne, and borehole geophysics to resource exploration and environmental subsurface characterization before drones.

## Zoom meeting information:

Zoom ID: 913 2531 9171

Password: BAGS4ever