THE USE OF DRONES TO LOCATE PORPHYRY DEPOSITS UNDER

 GLACIAL COVER IN BRITISH COLUMBIA.

M. Best1, E.A. Elia2, T. Ferbey2, R.B.K. Shives3, B.C. Ward4, and N. Martin-Burtart5

1Bemex Consulting International, 2British Columbia Geological Survey, 3GamX Inc., 4Simon Fraser University, 5Radiation Solutions Inc.

 The interior plateau in central British Columbia contains several large porphyry (copper, gold) deposits. Part of the area is covered with thick glacial sediments that obscures prospective porphyry deposits. The presently accepted approach is to use a combination of geophysical techniques, in conjunction with drift prospecting to locate potential bedrock deposits; drift prospecting utilizes geochemical and mineralogical analysis combined with ice flow direction, The focus of this talk is to present the results from utilizing drones to collect lidar, magnetic and radiometric data at a higher spatial resolution than conventional airborne equivalents. When combined with the other techniques drone-borne data may provide a fast and efficient way to explore for these buried deposits. The presentation will provide examples of the data collected, along with preliminary interpretations. We will finish by discussing some of the positive and negative aspects associated with using drones as an exploration tool in areas where bedrock is covered with glacial sediments.