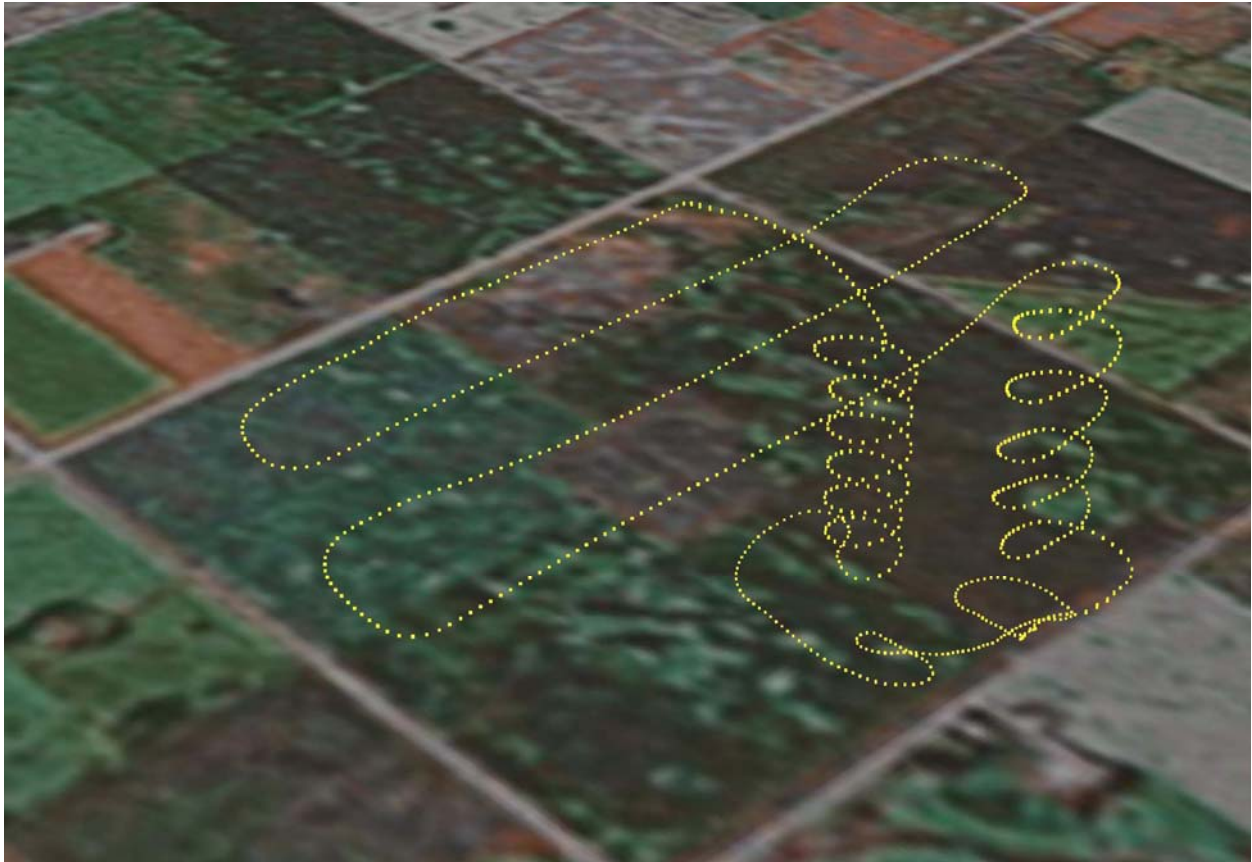


## SYSTEM DESCRIPTION—Other (Flight Profile Description)

**Summary:** The CropCam UAS was originally created for use by Canadian and U.S. wheat farmers to provide simple and cost effective aerial photography of their crops. It is launched by hand and may autonomously fly a spiral to altitude, whereupon it begins a “lawnmower pattern” flight. During this flight, it flies parallel paths as it takes multiple still images. Upon completion of this flight collection of photos, the CropCam descends to the ground in a spiral path. When it nears the ground, the pilot may elect to let the UAS land autonomously or take manual control and land. Under auto-landing, the CropCam set up an into-the-wind approach flies a shallow angle to the recovery site, then lands.

A sample flight profile, created by using the autopilot data log of latitude, longitude, and altitude, is shown below. Note that a typical flight will be at 1,200 ft AGL. This altitude facilitates fewer passes when the Pentax Optio s5i digital camera is used, based on the lens field-of-view.



Filename: COA Appl 635\_SYS DESC Other.doc

(b) (6)

C.O.A. Draft #635

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