

Hovering UAV with virtual tethering capability

ABSTRACT

An unmanned aerial vehicle (UAV) with hovering capability is disclosed, comprising (a) balloon means to keep it afloat; (b) propeller and rudder with actuators for directional propulsion means; (c) video camera; and (d) transceiver for sending video data (including still images) to, and receiving navigation actuation signals from, a ground control in a wireless manner. Navigation aids such as altimeter, digital compass and GPS decoder may be included. The UAV may be configured to hover at a predetermined altitude and distance in a virtual tether to a moving ground control, or at a predetermined altitude and distance ahead of a moving ground control. Alternatively, it may be configured to hover at a predetermined altitude and distance lagging behind a moving ground control. Conceptually, our UAV may be said to hover at a predetermined altitude and distance in a virtual tether to a predetermined subject upon which the image sensing means are preset to automatically train.

FIGURE 3 accompanies the abstract.