




TrackLogix FZ LLC



Drones for Good 2016
-Technical Description Proposal-



Introducing– “Life Buoy” Drone



“Life Buoy” drones deployed to the coastline by the National Search and Rescue (SAR) Center and piloted remotely from the Command Centre. Deployed to constantly survey the surrounding coastline for swimmers, small boats, paragliders, paddle boarders seen to be in distress and in need of immediate assistance



System Overview – “Life Buoy” Drone



Secure dedicated microwave links sending secure high definition live video back to the Command Centre from where the drone is controlled



Drone “Life Buoy”

Life buoys deployed



Life Buoy deployed remotely

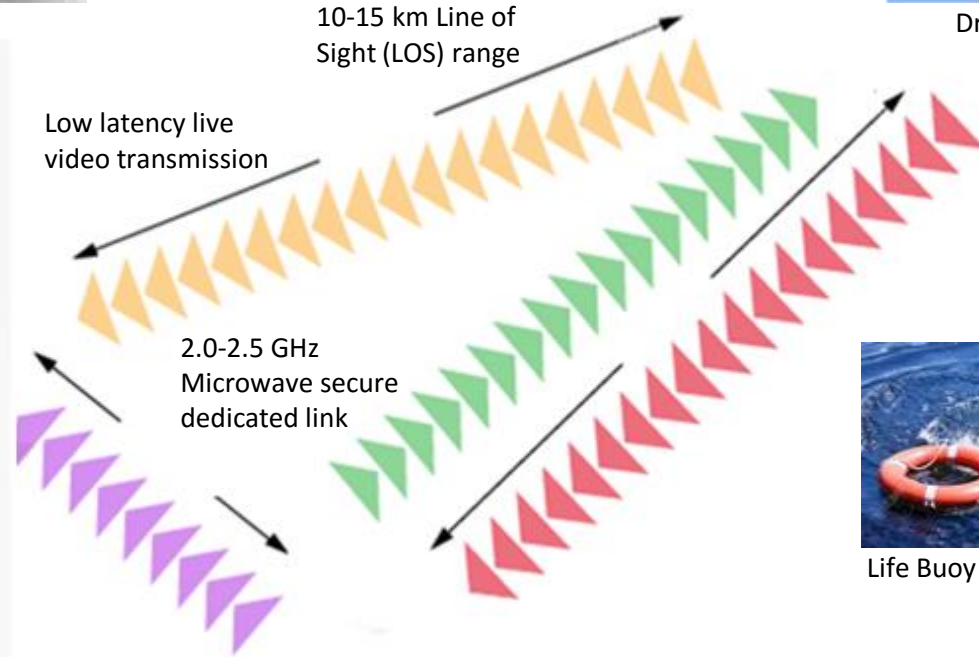
10-15 km Line of Sight (LOS) range

Low latency live video transmission

2.0-2.5 GHz Microwave secure dedicated link



Microwave Receive Site at Burj Khalifa



Command Centre

IP Video feed sent to Command Centre via fiber



Police Search & Rescue (SAR) vehicle

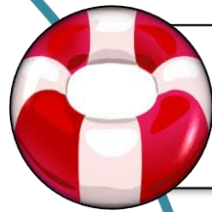


Police Search & Rescue (SAR) marine craft

Drone with “Life Buoy” Description



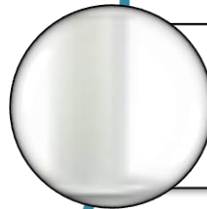
“Life Buoy” drones would ideally have a run-time of 1-2 hours, withstand high wind speeds, have a runtime and broadcast range of up to 10-15 km. There would also be the possibility to deploy multiple life buoys



Drone with life buoys attachment and deployment mechanism. Flight and camera control entirely from Command Centre



Miniature microwave transmitter deployed within mechanics of drone: 0.2-to-2 Watts, IP65, COFDM modulation for a robust signal for full motion video (FMV)



Microwave transmit antenna deployed on arm of drone for live streaming video and audio: 3 dBi, 2.0-2.5 GHz range, 6 inches in length



High Definition (HD) video camera: IP65, 14 MP 1080p, thermal camera, built-in spot light capability, microphone and speakers for audio transmission



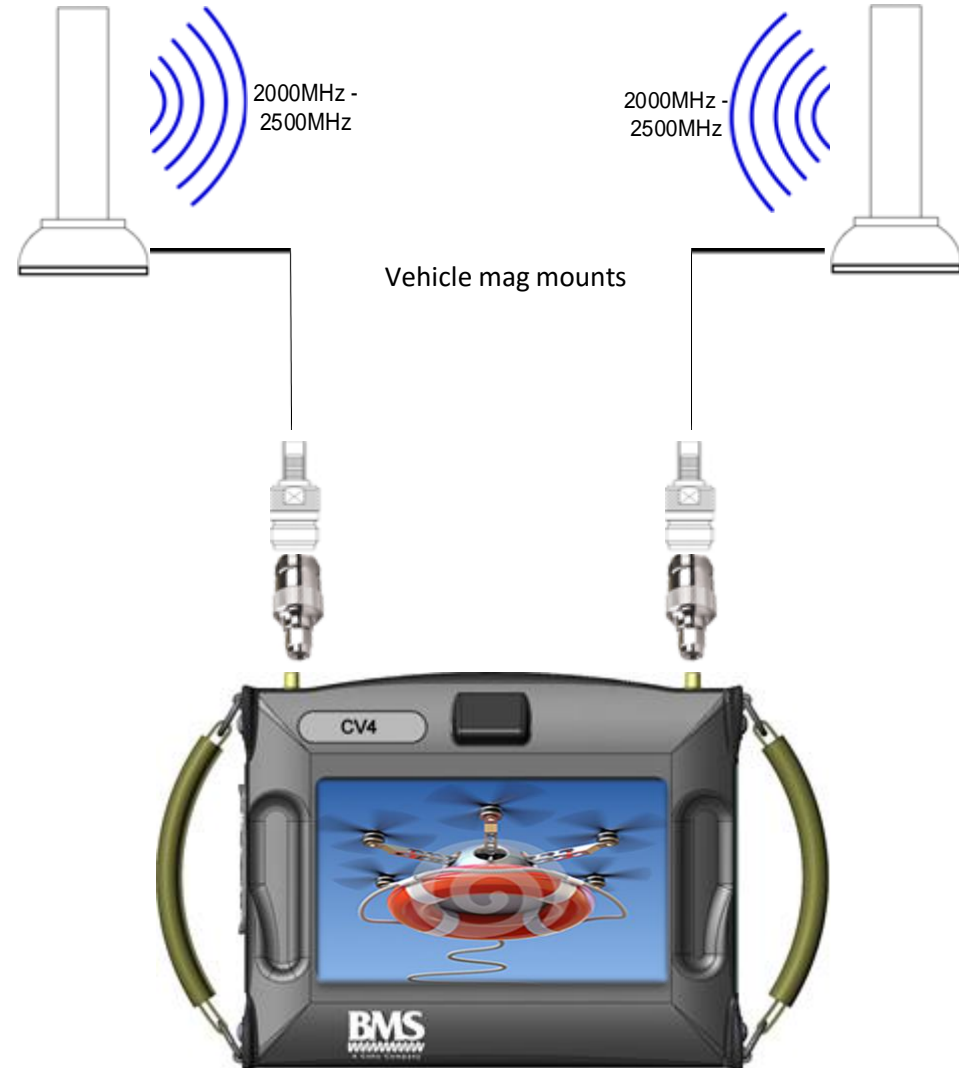
Mobile Command Centres



Portable Carry Viewer docked in Police vehicle for viewing video feed in real time



Portable Carry Viewer docked in Police marine craft for viewing video feed in real time



Portable Carry Viewer 4 COFDM microwave receiver

Video Distribution



From the Command Centre, the live video feed can be distributed to emergency vehicles and teams via IP to multiple work stations and laptops, and to Smart Phones/Tablets via Wi-Fi and 3G/LTE mobile networks

