Aircraft System

COMMUNICATION

The Aeryon Scout has three elements of the communications system. The Command Station which is used by the pilot to monitor, direct, and control the UA; the Scout UA; and the Base Station which provides the communications between the other two elements. The link between the Command Stations and the Base Stations uses an 802.11b/g WLAN which operates between (b) (2), (b) (4), (b). It uses a channelized system to optimize communication between the stations. This link has a maximum effective range for high data rates up to 30 m, however, the system described limitation is 10 meters to ensure excellent connectivity. The link between the Base Station and the Scout UAS uses a MicroHard Nano Series – (b) (2), (b) (4), (b) spread spectrum frequency hopping modem. The transmitters, both Base Station and Scout use 1 Watt of power and are limited to 3 km range, although the link is capable of more than 30 miles. This provides a good buffer for the link to ensure link connectivity. The link is encrypted which negates the inadvertent control theft and reduces the potential for hostile control take-over.

Communications Diagram