## Technical Update

## Van Walt's preferred Radio Network

We have been asked why we chose the FLECK radio network for our vanwaltDataSlave rather than the more widely known LoRa option. The vanwaltDataSlave, a wireless telemetry system, uses the FLECK low-power, wide area radio network to transmit data from sensors to our secure vanwaltDataHub with onward connection to our vanwaltCONNECT server and data interface.

This FLECK radio network differs from LoRa in several ways:

- We use a Narrow band (5Khz) with more channels, LORA is a wide band (125KHz) network. With this larger band there are many more opportunities for interference.
- We use a Category 1 receiver ETSI en300220. The FLECK module is the highest grade of receiver and is suitable for 'protection of life' applications like Ambulance, Flood Risks etc.
- Although LoRa could possibly list a longer range this can be at the cost of transmission times and substantial power loss.
- In feedback from customers, the FLECK system outperformed LoRa in urban and forested environments.
- LoRa is locked in to LoRa base stations. These can be costly and very power intensive.

As a result of choosing FLECK we can offer a radio telemetry solution that is:

- · Cost-effective for telemetered networks
- License and Subscription free
- Long range
- Designed to operate independently or as part of a network
- Multiple units can be daisy-chained together with an automatic connection to telemetry hubs
- Ideal for difficult to access locations
- Up to 18 month battery life
- Powered from 2 x AA batteries
- Secure wireless communication
- Configurable via telemetry, FLECK Radio Modem Tile or Software application

Plus, many more advantages.