

## Drones Now Regulated Heat-Seeking Troubleshooters

New rules regulating the use of remotely-piloted aircraft systems, colloquially known as drones, are now firmly in effect after having been signed by the Minister of Transport.

"The regulations governing the use of drones in South Africa are welcome because they bring clarity," says Philip Smerkovitz, Managing Director of TeleEye SA, a distributor of FLIR thermal imaging systems and DJI gimbals designed to be bolted-on to the world's leading drone models.

These imaging systems use state-of-the-art infrared technologies that detect infrared radiation, or heat, enabling the drone operator to see in total darkness, and all weather conditions. With simple power-in and video-out connections, and MAVlink (Micro Air Vehicle link) compatibility, it's easy to integrate FLIR Vue thermal imaging systems onto drones and get flying.

Mr Smerkovitz explained that the promulgation of the RPA regulations last year means it is now impossible to fly drones near National Key Points without prior permission. A current list of National Key Points is available on the web and is maintained by the Right2Know campaign.

The good news, according to TeleEye SA, is that it is completely legal to use drones on private property, for search and rescue, firefighting, security, agriculture, roof and solar panel inspections, aerial surveys and photography, and a host of other applications.

Drones cannot, however, be flown within 50m above or close to a person or crowd of people without prior approval. This has obvious implications for crowd control applications and sporting events.

Drone operators should be aware that they need to have a Civil Aviation Authority (CAA) approved remote pilot licence and a letter of approval which is valid for 12 months. Drones furthermore cannot fly more than 120m above the ground, nor within 10km of an aerodrome. That's an airport for those of us born after 1970. Interestingly, while the rules also stipulate that visual contact must be maintained with the drone, this doesn't apply to night operations.

DJI (Dà-Jiāng Innovations Science and Technology Co., Ltd) is a Chinese drone leader manufacturing unmanned aerial vehicles (UAVs), gimbals, flight platforms, cameras, propulsion systems, camera stabilisers and flight controllers. The Economist in 2015 described the company as being at the "forefront of the civilian-drone industry".

DJI and FLIR Systems have formed a formidable partnership that has seen FLIR design core thermal systems that seamlessly integrate with DJI drone products including the flagship Xenmuse XT gimbal.

FLIR Systems is the world's leader in the design and production of thermal imaging cameras, components and imaging sensors and has now produced the FLIR Vue range of drone-based thermal imaging systems that, together with DJI UAV products, turn drones into formidable aerial surveillance systems.

TeleEye SA, a FLIR and DJI distributor, has many years' experience securing people, assets and installations, such as the Google-backed Jasper solar power plant in the Karoo, Eskom substations throughout Gauteng and various mobile base stations for South Africa's leading cellular providers.

TeleEye SA distributes a wide range of surveillance products, FLIR thermal imaging products, DJI industrial drones and accessories, as well as Optex detection devices. FLIR's range of heat-detecting cameras are more than thermal cameras but thermal measurement, instrument and data recorders that add tremendous value to drone operations and services.