

Little choppers to help with landscape-scale science

CSIRO says the donation of four Draganfly unmanned aerial vehicles (UAVs) from Ericsson Australia will provide researchers with low-cost, aerial image-capture for monitoring and exploring remote forestry, wetland and floodplain ecosystems.



Credit: CSIRO

CSIRO spatial analyst, TJ Lawson, has previously used similar UAVs to view vine thicket canopy over Cape York Peninsula. ‘We were delighted to receive this generous donation from Ericsson’ said TJ, ‘They’ll add a new dimension to our [Earth Observation](#) research.’

The carbon fibre quadcopters are the same models used to capture overhead and sweeping angles during television coverage of sporting events, such as AFL football matches.

Previously, researchers have relied on chartered aircraft and satellites to capture data from terrestrial and aquatic environments. The [Draganfly](#) UAVs, on the other hand, can be deployed rapidly and cheaply, reducing the limitations of weather, expenses and logistics associated with satellites or aircraft.

Existing regulations allow UAVs to fly up to around 100 metres high. The Draganfly can carry up to a kilogram of sensing equipment, such as high-resolution cameras, thermal cameras and laser altimeters.

‘They are a fun bit of kit,’ said Neil Sims, from CSIRO Land and Water. ‘More importantly, this is an additional capability for CSIRO. Researchers will be able to borrow the UAVs and learn to “fly” them for their projects.’

‘They’ll provide much higher level resolution than we’ve ever been able to get before, and very targeted images. River channels that are far too skinny for a satellite pixel will no longer be a problem!’

Through funding from the [Earth Observation Informatics Transformational Capability Platform](#), TJ recently travelled to Canada where she received train-the-trainer accreditation from the manufacturer, allowing her to train CSIRO staff for project use. This expertise will be combined with the ICT Centre's knowledge of Civil Aviation Safety Authority (CASA) regulations to operate the units.

Source: CSIRO

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