

ARC Newsletter

Issue 5 Number 1

Jan-Feb 2019

Gatwick drone event

ARC have received extensive international media attention following Gatwick and LHR incidents

Page 2

Counter Drone Solutions joins the Consortium

Welcome onboard to CDS that add a new and vital RPAS service offering

Page 3

Meet the new look ARC Board . . .

With three new Directors the ARC Board is now well positioned for the future

Page 6

Sydney Trains project Phase 1 completed

The Asia-Pacific RPAS Consortium submitted its Final Report on developing an *RPAS Operating Framework* for Sydney Trains on 24 December 2018.

Sydney Trains, through its Engineering and Maintenance Directorate has chosen to become an exemplar operator of RPAS. This aspiration has initiated a process whereby a traditional railway operation has embarked on a trajectory that will ultimately take it into areas of expertise previously unknown. The incorporation of this technology will add a further regulatory interface through a direct relationship to the aviation industry. The dominant challenge associated with this integration is one of safety.



In order to achieve the above stated objectives, Sydney Trains retained the services of the ARC in recognition of their expertise in the area of legal, regulatory and operational aspects of RPAS and considering the fact that its parent company - Onesafe Integrated Risk Management Pty Ltd - is well known by Sydney Trains in having carried out numerous high-level and complex rail investigations and has been on the panel of approved providers of such services for the past five years. The Terms of Reference and Statement of Works for this project was to develop a *Competency RPAS Framework and Operational Rules* for Sydney Trains and develop the internal capability to conduct RPAS operations and contract specialist tasks to a panel of approved operators.



Central Coast Council retain ARC

Gosford, NSW The Central Coast Council retained ARC to conduct an independent assessment and evaluation of their current drone activities and procedures relating to shark spotting and beach patrols. The Council were concerned after internal legal advice suggested they may be exposed to legal liability. ARC Director Nigel Meadows conducted the review and report in two weeks.



In the news . . .

Australia cracks down on drones

Australia's Civil Aviation Safety Authority (CASA) said it would roll out drone-tracking technology at major metropolitan airports over the next few months, to try to get an accurate picture of the scale of Australia's problem.

CASA spokesman Peter Gibson said the equipment would be used in future for enforcement purposes.

"We can identify where drones are, where the controller is, often get the serial number of the drone, and that will allow us to then pinpoint people who are breaking the rules and issue the appropriate penalties," Mr Gibson said.

"Fines can be in excess of \$10,000. If a matter goes to court, a court can impose a jail sentence of up to five years."

Drone operators will also have to register the serial number of their device with authorities, starting from the middle of this year.

CASA has signed a contract with Counter Drone Solutions, run by former policeman John Hildebrand, to supply the equipment.

"With the data we're seeing around airports and prisons and stadiums, drones are everywhere," Mr Hildebrand said.

"The risk is one of those drones could fly into an aircraft engine, the aircraft windscreen, or some other componentry of a helicopter that could cause an aviation incident."

arc Member Organisation
Asia-Pacific RPAS Consortium

ARC welcomes two new Consortium members
Congratulations to Aviation Safety Asia based in Hong Kong.
CEO Dane Williams was the co-founder of UAS International
Also Counter Drone Solutions (see story in this issue)

Audits for Approved UAS Operators (AUOs)

Two major Australian-based RPAS operators are currently reviewing their policies, manuals and procedures in preparation for UAS International Audit in the first half of 2019



Director Counter Drone Solutions, John Hildebrand
Source: ABC TV News, Jennifer Huxley

Western Sydney Airport invite ARC to present to executive management Drone applications and strategies

Sydney, Australia
The Asia-Pacific RPAS Consortium was invited to provide a two-hour presentation on the application of RPAS technology to over 30 WSA staff in January at their Liverpool headquarters.



Prof Ron Bartsch provided a 'showcase' of the type of RPAS applications and also counter drone strategies.

- Runway inspections: RPAS are currently being utilised at airports overseas for FOD monitoring and identification
- Aerodrome surveillance and security including use of high resolution, facial recognition software
- Asset, facility and roof inspections
- Promotion and marketing photography
- Wildlife management and birdscares
- Counter-drone solutions and security "no-fly" zones

Approved UASi RPAS operator Australian UAV provided a video on RPAS applications at airports

Australia not prepared for Gatwick-style drone chaos, warns expert

After drone activity caused disruption at London's Gatwick airport this week, one expert is concerned Australia is underprepared for a similar event.

Drone expert Professor Ron Bartsch told SBS News on Saturday, "what happened at Gatwick is something that could happen tomorrow at Sydney's airport or any airport throughout the world".

Drones were first sighted hovering around the UK's second-busiest air hub on Wednesday, grinding the runway to a standstill affecting more than 120,000 people.

Australia 'hamstrung' by privacy, telecommunication laws

But some experts say Australia needs more aggressive drone-killing technology – such as radio frequency jamming and "protocol manipulation", also known as "spoofing" to seize control of drones that enter restricted airspace.

Spoofing cracks into the communication protocols of the drone and sends it to a location predetermined to land, and the UK military was reported to have used it at Gatwick.



Professor Ron Bartsch on SBS TV News
Source: SBS News

In Profile: John Guselli DipAv DipEd

Executive Director UAS International

- Experienced Air Traffic Controller
- Former Chairman of Flight Safety Foundation Board (Australia)
- Member of the International Society of Air Safety Investigators



Facilitated international ATM safety management and investigation training in conjunction with operational management for the Singapore Aviation Academy, Eurocontrol, Airservices Australia, the Australian Transport Safety Bureau, the Southern California Safety Institute, the Civil Aviation Safety Authority of Australia, the International Society of Air Safety Investigators, CAA Pakistan and the United Kingdom CAA.

<https://www.sbs.com.au/news/australia-not-prepared-for->

Clyde & Co

Gatwick meltdown: drones in a no-go-zone

Written by Clyde & Co Partner Maurice Thompson (Chair of Global Drones Strategy Group), Patrick Slomski & James M. Cooper

The serious and extended closure of Gatwick Airport because of the suspected deliberate use of a drone infringing the airport airspace has brought to a head the warnings of many in the industry.

Read more: <https://www.clydeco.com/insight/article/gatwick-meltdown-drones-in-a-no-go-zone>

Australia cracks down on drones

Australia's Civil Aviation Safety Authority (CASA) said it would roll out drone-tracking technology at major metropolitan airports over the next few months, to try to get an accurate picture of the scale of Australia's problem.

CASA spokesman Peter Gibson said the equipment would be used in future for enforcement purposes.

"We can identify where drones are, where the controller is, often get the serial number of the drone, and that will allow us to then pinpoint people who are breaking the rules and issue the appropriate penalties. Fines can be in excess of \$10,000. If a matter goes to court, a court can impose a jail sentence of up to five years." Mr Gibson said.

Drone operators will also have to register the serial number of their device with authorities, starting from the middle of this year. CASA has selected 12 drone experts from industry including UAS International Executive Director **John Guselli** and **Prof. Ron Bartsch**, President, Asia-Pacific RPAS Consortium.

CASA has signed a contract with **Counter Drone Solutions**, run by former policeman **John Hildebrand**, to supply the equipment.

"The risk is one of those drones could fly into an aircraft engine, the aircraft windscreen, or some other componentry of a helicopter that could cause an aviation incident."

CDS will train CASA inspectors and use fixed and mobile devices that include radio frequency sensors that listen for the drone's command signal, and identify the pilot's location.

Authorities can use multiple frequency sensors to triangulate location, speed, track and distance of the drone.

"The data we're seeing around airports, prisons and stadiums, drones are everywhere"

- John Hildebrand

MITIGATING LEGAL LIABILITY

Developing your Council's drone policy

By developing specific policies relating to drones and their usage, Councils can mitigate their legal liability.

The Drone Report (2018) suggests that "the absence of a formal council policy [on drones] may also be interpreted by some recreational drone operators as unfettered permission to fly their drones anywhere".

"Local governments should implement policies and procedures to ensure that their operating personnel comply with these obligations"

Drones and the Law in Local Government, Oct 2017



Australian Government
Civil Aviation Safety Authority

All AUOs have agreed to allow access of their audit reports and data to the Civil Aviation Safety Authority (CASA).



DRONE CONSIDERATIONS FOR LOCAL GOVERNMENT

*For organisations currently or intending to
use drone operations*

"There are some significant risks involved in the unregulated operation of drones, with collisions causing injuries and deaths around the world. At the LGA level, this could result in injury to adults, children or pets in our community."

Drone Policy Report, 27 April 2018

Meet the new look ARC Board members . . .



Hon Duncan Gay - Chairman Asia-Pacific RPAS Consortium Former Minister Roads, Maritime and Freight, NSW Government from 2011 to 2017. Vice President Executive Council of NSW. Deputy Leader of the Government Legislative Council of NSW from 2011 to 2014. Member Legislative Council of NSW Government for 27 years. Since leaving Parliament in July 2017, Duncan was invited to join the board of MU Group as an Executive Advisor. MU Group provides business services for transport and infrastructure companies in both government and non government

John Hildebrand - Director Asia-Pacific RPAS Consortium. John has 28 years of operational and management policing experience along with a background in aviation and commercial drone operations. John was the Senior Project Officer for the Queensland Police Service (QPS) Counter Drone Capability for the Commonwealth Games in 2018. John is founder and Director of Counter Drone Solutions that provides end to end counter drone solutions for clients in the Australian and the Pacific



Cathy Pak-Poy - Director Asia-Pacific RPAS Consortium. Cathy has over 35 years experience in ATC and airspace management and is CEO of Strategic Airspace. Cathy has consulted throughout the Asia-Pacific region for the past 25 years and provides aerodrome and airspace solutions for governments and corporations.

Case Studies - Drones and Councils

The short case studies below are collated from drone operators who have all been accredited under the UAS International Standard. **UASI** is a member organisation of the **Asia-Pacific RPAS Consortium**. Collectively these accredited operators have worked for more than 40 councils across Australia.



With the increased instances of rubbish dumping, illegal tips and stockpiling, **3FB Aerworx** is working with councils and other stakeholders using drones to identify and monitor target locations. Due to safety concerns and the need for documented evidence for comparison and possible prosecutions, aerial services are well suited to these operations. 3FB Aerworx can quickly and quietly ascertain the conditions of the site including stockpile size and conditions, a general overview of the site, identify people and vehicles (including registration) involved in the illegal dumping to assist in future prosecutions. The imagery captured as part of these compliance operations is geofenced, time and date-stamped to assist councils and other stakeholders develop their case for prosecution.



Altitude Imaging completed a structural inspection of the amphitheatre at Scarborough Beach, WA. The use of advanced drone technology with 42-megapixel inspection cameras avoided the need for inspectors working at height and the complex task of moving elevated work platforms around the amphitheatre and sandy beach. Not only reducing risk, the inspection was quicker, minimised disruption to the public using the beach and was more cost effective than conventional methods.



Australian UAV was engaged to undertake an environmental survey of a 4800HA river and valley system that made its way through multiple council municipalities. The project utilised unmanned aerial surveys to assess high waterline, water volumes and environmental impacts of a proposed new dam design. The councils and other stakeholders used the survey data to aid in future planning and land management programs.