



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON ECONOMIC DEVELOPMENT AND TOURISM
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Submission Cover Sheet

Inquiry into drone delivery systems in the ACT

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STANDING COMMITTEE ON ECONOMIC DEVELOPMENT AND TOURISM

Submission: INQUIRY INTO DRONE DELIVERY SYSTEM IN THE ACT

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Background:

Having previously lived in Kambah for 35 years, my husband and I decided to purchase a block and build in Bonython and moved in 2009. We selected our block due to the peaceful amenity, the closeness to Pine Island recreational area and Stranger Pond where we, and with our grandchildren whom we regularly cared for, could have a lifestyle of quiet, enjoyment of nature especially the bird life, and could walk for fitness and exploration around our nature area without the need to use our vehicle to drive to green space areas for leisure and pleasure. We both retired from the work force during the early years of settling here and enjoyed pottering in our garden, enjoying outdoor entertaining and walking around the pond and nature park, by ourselves and with our grandchildren.

Then ... the drones came. Our house is approximately 50-100 metres off the direct flight path of all drones that originally went out on deliveries and came back again, as well as in very close proximity to houses around us that were part of the trial, and who had (very) regular deliveries.

I am also the Area Coordinator for Bonython Neighbourhood Watch (NHW) and have been for the past 10 years. I am well known throughout the suburb through NHW and other community activities that I have been involved in. When Wing first commenced deliveries in the suburb I was the first point of contact for many residents and I was inundated with phone calls, emails and queries from many residents. This dates back to early March 2018 when testing only was being undertaken. As part of my role in providing community assistance, I initially spoke to and wrote to various MLAs about the concerns that residents were raising with me. At the time, which was even prior to the actual deliveries commencing, I was astounded by the anger and frustration expressed by so many residents about the lack of information on why the trial was happening and who complaints and feedback could be directed to, other than Project Wing itself. Many residents stated that they had written to the ACT Government and had received no replies. I myself wrote to Minister Gentleman's office to receive a reply nearly a month later with a response that did not directly address the concerns and issues that I had raised. In September I withdrew from being a point of contact when the action group 'Bonython Against Drones' was formed and referred all communication through that medium.

In my role as Area Coordinator for Bonython Neighbourhood Watch I have spent many years endeavouring to not only provide security and safety information to residents but also help create close, healthy neighbourhoods and connected communities where neighbours took time to speak with and watch out for one another. I have now witnessed a social decline and antisocial behaviours in the suburb with neighbours pitted against one another, and friends now not talking since the drone deliveries commenced. I myself have been angered by my own neighbours with what I believe to be selfish and inconsiderate actions of satisfying their singular need without any thought or regard to the impact that drone deliveries may have on others. This has been heightened by the actions of Wing when they offered a free drink with every order; consequently people placed only one order at a time and this in turn resulted with many more noisy deliveries. This, coupled with the problem that if a household wanted to order a family meal, due to weight restrictions, this could be and was witnessed that it took up to six deliveries to complete the order. Additionally, to achieve a delivery to someone on the other side of the suburb, potentially up to 150 households may be affected by the noise of the drone flying over, then another 20 or so households are even more impacted when the very loud delivery is made in the drop zone, and another 100 households

again affected with the drone returning to the 'nest site'. All this inconvenience for one person, possibly for just a coffee, who does not consider the effect on so many others.

I would like to comment on the following terms of reference:

1) The decision to base the trials of the technology in the ACT and surrounding region

I would like to offer the following statements on the drone delivery service in Bonython.

As a resident who has lived with the drones since testing began in early 2018, I verify with experience the following issues

Noise

We have noise all around us, at varying levels. Noise pollution worsens as cities grow but the convenience of drone delivery will come with a price. Noise pollution is not only annoying - it is harmful to our health. Exposure to noise has been linked to heart disease, lower academic performance and sleep problems.

The high-pitched frequency of drones is unique and appears to be far more penetrating than car or general road noise. This is supported in a recent document by NASA research (<https://qz.com/1033675/a-nasa-study-found-drones-sound-more-annoying-to-people-than-cars-or-trucks-and-flying-them-higher-wont-help/>) where it was found that the buzz of a drone is more annoying to people than the rumble of cars and trucks. This is a warning sign that the ambitions of commercial companies to deliver their goods by drone could reshape the soundscape of cities and suburbs to the detriment of the citizens.

It is clear that our homes are not designed to shield from noise above us. In line with government and health advocate directives, we also should be willing and eager to get out of our homes, move about, exercise and take in the sights and sounds around our lovely bush capital. Walking around the suburb with the threat of drones in constant flight above our heads is definitely not conducive to calm and harmony.

For me noise is a major factor -

- the drones are large and very noisy;
- they make a high-pitched whining sound and operate from early morning to evening;
- you can hear them from a long way off, both coming and leaving;
- the drones travel at 120 kph and they sound like a race track in the sky;
- when they do a delivery drop they hover over the site and it sounds like an extremely loud, angry, squealing vacuum cleaner;
- they can be heard from inside closed houses, even those with double-glazing;
- it is worse in summer with the house open;
- noise has been measured from a resident's fence line at 80 decibels while a delivery is being made;
- It is disturbing the peace and quiet of the suburb as well as that of the nature park;
- outdoor entertaining, gardening, walking around the suburb and Stranger Pond was once peaceful but there is now the constant sound of drones flying on service days;
- on delivery days I did not want to be outside in the garden nor go for a walk around the pond, nature park or suburb as it was not enjoyable with the drones whizzing around.

Drone Deliveries

With most Canberra households being in reasonably close proximity to shopping centres, I do not see the need to have drone deliveries to suburban households. To many it would have 'novelty value' as opposed to 'need value'. For those, such as the elderly or infirm who cannot access shops easily, there are many options in place that can cater to their needs eg, community transport, chemist home deliveries, Uber eats, and grocery shops that do home deliveries, as well as numerous online shopping services. The bonus to these types of deliveries is that they can carry larger items in one delivery and without the inconvenience and intrusion to other residents that drones bring.

In today's society where social isolation is becoming an increasing concern from the very young to the elderly, any encouragement to get out and talk with people, even for short periods, and stop isolation should be fostered. It is well documented that social isolation can be a precipitating factor for suicide based on lack of any social networking. Drone deliveries of simple items supports isolating those who may already be lonely and vulnerable by sanctioning them to shut themselves away even more.

Based on drone deliveries in Bonython there were limitations to the Project Wing model such as

- Menu and selection of items available from providers were limited.
- Prescription medication could not be delivered from the chemist provider but only items such as band aids, paracetamol etc.
- If customers order a large meal through the drone service, it took up to five or more delivery drops to complete an order due to weight limits. This constitutes a whole lot of noise for the many people who live on the flight path and around the drop zone.
- If an order is placed from a customer from across the other side of the suburb, up to 150 households or more can be disturbed in the flight path, another 20 or so while the drone hovers and delivers, then 150 or more again for the return flight – and all for one order.

It is a concern that pharmaceuticals such as cough medicine and paracetamol, were delivered without consultation with a professional pharmacist, and with the opportunity for a delivery to be made to the wrong address or even children accessing the delivery.

Consultation and Feedback

There was no community consultation by the ACT Government or any other independent body about the trial taking place. I do not believe that the ACT government at any time considered the impact of the trial on residents of the suburb. Additionally, the ACT Government made no effort or attempt to contact residents at large through an event such as a community forum, or repair any of their issues even after issues had been made public through newspaper articles, TV interviews or direct contact following feedback from the residents.

Wing claimed to provide consultation to residents through organising two outdoor events, however these were not widely publicised and many residents were not aware of these 'consultative' occasions. I am of the opinion that consultation involves discussion between a number of parties and not just being told what has been organised! Those who did go reported only Wing staff promoting the trial and advertising their services. Wing also provided an information 'giving' session to the Tuggeranong Community Council but again only told a 'picture perfect' side of their story. By this time many residents had spoken with people who had witnessed the trial in Royalla and were not appeased by what they said, especially when Wing claimed it to be a 'successful trial' but could not, nor would not provide any evidence to substantiate their claim.

At no time were any Government or other independent authorities available to answer queries. At no time during the whole of the trial was there any independent authority available to accept feedback or seek answers. As were others, I was told to report everything to Wing. This was totally unreasonable as Wing were the very thing that we wanted to complain about! I approached CASA but they would not accept any complaints as they stated that their remit only went as far as safety. I approached AirServices Australia who said that they would not enter into any discussion on the drones as they only dealt with

aircraft. EPA said they could not measure noise levels as it involved aircraft and that was not their responsibility.

Businesses

Why was a project that was allowed by the ACT Government and which involves commercial businesses permitted to have been set up and operate on nature reserve and within the Murrumbidgee corridor? This involves the commercial use of a public nature reserve.

Local business - The chocolate business and coffee franchise, the pharmacy and Mexican food businesses which operated in the drone delivery service were not local to the area and undercut existing businesses that may have had established clientele in the area.

Governing Authority

To my knowledge there was no governing body or agency that Wing was required to report to, or which governed, scrutinised or had any policing authority. I find this quite amazing in this age that there was no entity that did any checks and balances on an overseas company that was running an operation in this country.

Wing, together with ACT Government, did not present any transparency on the drone trial including approvals for the trial to start, trial end date, feedback, incidents and data collection. The public were totally blind to any clarity on the trial and how it was being operated. I do believe that the ACT Government did not know, or bothered to make time to find out, how Wing was operating and they were totally unconcerned and unresponsive to the deluge of resident's complaints and issues.

Privacy

It is documented by Wing that the images recorded from flights and drops are stored offshore for an undetermined time period, or 30 days, depending which Wing site is read. During this period, are there any Australian Privacy Principles that would cover what information is actually stored, who has access to this information, for what purpose? If not, why not?

According to the ACT Human Rights ACT 2004 *"people have the right to privacy under section 12 of the HRA protects people in the ACT from 'unlawful' interference with their privacy . Under international law, the right to privacy has been interpreted as applying in a variety of different circumstances. It has been defined widely as 'the right to be left alone' (the right to live free from interference), and so includes the right to autonomy.*

and, ... *The term 'arbitrary interference' in the right to privacy can extend to lawful interference. Arbitrary interference in someone's private or family life is interference that may be lawful, but is unreasonable, unnecessary and the degree of interference is not proportionate to the need".*

I most definitely feel that my privacy is compromised when I know that drones flying overhead have cameras fitted, the company that was operating the cameras was international and unaccountable to any Australian authority. Wing state ... *The data the camera captures is a low-resolution and greyscale format, and is only available to a small group of engineers for the purpose of analyzing safety and performance criteria. Wing takes privacy extremely seriously and actively avoids capturing any more data than is necessary for the safe operation of its drones.* Images are still being captured which I did not give permission for.

CASA provided Wing with an exemption to the normal rules where drones must remain 30 metres away from people and buildings. While people who place an order for a delivery must remain 2 metres away from the package delivery, I have been walking along footpaths when a delivery is being dropped and this

has caused me to vary my walking route onto the roadway to keep clear of the drone. Also, I did not give permission for the drone to be closer than the normal 30-metre boundary of my family and myself as I did not request that delivery. This I feel is also an invasion to my person as well as a safety risk to me.

DRONES INCIDENTS

I feel concerned that there have been a number of incidents involving drones in the suburb. While I have not witnessed any myself, other than observing a bird attack and being in close proximity to a delivery drop where I had to walk on to the roadway, I have personally spoken with people, have read on the Bonython Against Drones Facebook page and read many other articles that cite incidents involving drones. This makes me feel anxious that potentially an incident could occur around me. It is intolerable to think of the implications of a drone impacting with a child, or anyone for that matter, or onto a moving vehicle that had been in the location at the time.

I am aware of incidents that have been reported by residents and/or have been posted on Facebook include

- Deliveries to the wrong address
- Bird strikes
- Spilt hot drinks
- Drone crash on a non-customers driveway
- People being followed in public areas by drones
- Drone flying so low that it nearly caused a resident to drive off the road.

Wing openly state that there have been no problems with bird strikes during the trial yet there is video evidence on the Bonython Against Drones Facebook page where residents have taken video footage of magpies attacking drones, and I myself saw this occur.

EFFECT ON MENTAL HEALTH

In a world full of stress it should not be overlooked that one of the easiest strategies of managing stress is by creating a peaceful home. While it is not always possible to control our environment, those of us in the Canberra region appreciate and have chosen to live in our relative serenity. Shutting out the chaos of a busy work and social life or a hectic schedule is paramount to survival in our increasingly hectic lives. It is well documented that noise affects our general health, our physical and psychological wellbeing. Constant exposure to environmental noise can cause heart problems, hypertension (high blood pressure), stress, aggression, anxiety, antisocial behaviours and sleep disturbance as well as flow-on effects of any of these health problems.

I have personally noticed the effect that it has on my husband. His demeanour and character definitely changed on delivery days due to his anger and frustration every time he hears a drone fly over. I myself am on the alert each time I hear the high-pitched drone sound and do not relax until it is gone. There are many noises, particularly from the TV, that sound 'drone-like' and now trigger an instant anxiety response in me. It is not fair that we now live in a constant state of dreaded anticipation on the days that drones fly. There have been occasions that my husband and I have gone out for the day, leaving the comfort of our own home just to get away from the noise and irritation that the drones bring. We have even had guests, including our children and grandchildren, who are annoyed by the constant buzzing. We have two outdoor entertainment areas that were not used at all on flight days, leaving us to stay inside with the air-conditioning on. We did not want to be outside!

There is no way that my husband or I could have a rest during the day as it is really disturbing to be woken to the high-pitched drone sound.

In my role as a NHW delegate, I was working with ACT Policing on a stall at an event in Erindale Shopping centre in Oct 2108. Two males, at different times, approached the police to talk about the drones. The police redirected them to me due to my local association with them. Both males stated in front of the police officers that they would buy a gun and shoot them down. This was so very concerning that people would resort to extreme measures such as this and speak about it so blatantly in front of police officers. I believe that this shows the frustration and anger that built up in regard to the drones. I have also spoken to many others who have made menacing statements about the drones, out of sheer desperation of their state of anxiety.

2) The economic benefit of drone delivery technology being tested in the ACT including;

a. The investment that has been brought in to the Territory

I am aware that there were approximately 160 residents signed up to the trial and cannot see how potential earnings from what is approximately 10% of the houses in Bonython could constitute any economic benefit. As delivery during the trial period was for free and this may have tempted some to sign up, factual data cannot be assessed on any economic benefit.

As Wing is an American company and profits would not be held here, and the manufacture of drones is not Australian, I do not feel that there would have been any economic benefit of note to the ACT.

b. The number of jobs that have been created as part of the trial

Wing state that it has created jobs for the ACT however there were no actual facts produced to support this. The few jobs that were created for the trial could equal the jobs that may have been lost to local businesses. I fear that there may actually be job losses especially for those who are currently employed in the delivery industry. As this is often covered by base-skilled employment and casual jobs the disadvantage to those people could be detrimental.

c. The extent of collaboration with local industry and academic institutions

I am not aware of nor could foresee any collaboration with academic institutions other than approaching local high school or colleges for students to work part time.

3) The extent of regulatory oversight of drone technology at various levels of government including;

a. Local authorities such as EPA, Worksafe, Access Canberra

- I am aware that EPA was approached by residents to undertake noise testing of the drones but would not accept any responsibility or take action as they were not regulated to monitor 'aircraft' noise.
- I contacted a number of government officials and everyone I spoke to was unaware of any actual rules and regulations for the trial. They also appeared to be totally uninformed on who was responsible for overseeing the trial. This I found to be correct as no one was overseeing it.
- Drone technology is developing so swiftly that we must err on the side of caution when it comes to regulating it, especially the importance of public safety through risk management. Research released by RMIT in Victoria on 24 August 2016 states that technical problems are the primary cause for accidents with drones – usually a breakdown in communication between the drone and its controller. With the imminent future of other drone delivery companies expanding into our skies there is an urgent need for reform into commercial drone delivery systems. Amazon, Dominos, Australia Post are examples of other large businesses that have plans to move into the skies, therefore it is apparent that preventative and appropriate legislation and regulations are needed for these unmanned systems.
- CASA drone rules state that drones are not to come within 30 meters of people. This demonstrates known safety concerns however they still have changed the rules to suit Project Wing, yet there is no one body who is over-sighting Project Wing.

- The ACT Government did not regulate Wing operations nor did any other entity. Wing was a law unto themselves and, other than safety reports to CASA, they were not reporting to any government authority. I do not believe that any final report on the trial will be forthcoming as Wing state they 'will only provide a summary' at the end of the trial. If the ACT Government approved a trial, it was carried out in the ACT, and it involved ACT residents, a review of that trial should be undertaken.
- There appears to be no one entity that will come forward to reveal that they approved the trial and all it stands for. We know that CASA granted exemptions on a number of rules for drones but we do not know who authorized the exemptions to be made and under what conditions.
- In my Neighbourhood Watch role, many residents also reported to me that they had written or contacted the ACT Government and had received no response, or feeble responses to their issues. This was mostly directed at Mr Gentleman's office. As mentioned previously, I also had a similar reaction to a letter that I had written to him. It appeared that no one in the ACT Government knew what was going on with the trial and could not therefore adequately respond.

b. Commonwealth agencies such as Air Services Australia, Civil Aviation Safety Authority

- I contacted CASA to no avail and they would not accept complaints due to their not having the remit on anything other than safety and I was referred to Wing for information on exemptions for the trial.
- I contacted Airservices Australia and was told that they did not handle complaints and referred me to CASA.
- There was no practical or informative support provided by either of these organisations. I felt totally disregarded by both of these agencies.

4) The extent of any environmental impact as a result of trialling drone delivery technology on;

a. Residents within the trial area

As stated in my previous comments, lack of consideration by the ACT Government, noise pollution, invasion of privacy, safety and security concerns and mental wellbeing have had a major impact on the residents of Bonython.

b. Native wildlife

- I have witnessed birds swooping and aggressively attacking the drones, particularly during breeding season.
- The bird life throughout the local nature park and around the suburb has significantly decreased since the drones have been operating.
- The effect of the drones on bird life in the area is immediate on drone flying days, then it takes a couple of days for birds to start reappearing only to have another delivery day and they are gone again.
- As a regular walker around Stranger Pond since I moved here nearly 10 years ago, I have watched with interest as the bird life on the pond grew with swans nesting, and heron, egret, ibis, cormorants, pelicans and other water birds regular seen on the pond. For the period that the drones were operating there was only really common ducks and coots on the pond. Being on the fringe of the nature park we regularly had parrots and other native birds in our garden and these all disappeared other than choughs that seem to monopolise the trees where native birds had previously been. I have a birdbath outside my office window that is frequented regularly by wrens, larks, robins, honeyeaters, magpies and parrots and noted that since the drone trial started not one bird would fly in.

- I feel very sad that the impact on birdlife has been so enormous, leaving our surrounds bare of sounds of nature.

c. Domestic animals

- It was reported to me as Area Coordinator for Bonython Neighbourhood Watch by a number of residents that their dogs are spooked and distressed when the drones are around. I also received grievances by other residents about dogs barking constantly on delivery days and they were asking what they could do about it.
- I can attest to dogs around my neighbourhood constantly barking on drone delivery days and often started before I even heard a drone flying.
- It is concerning that peace and quiet in a neighbourhood is broken by consistent barking, but it is also worrying the potential damage to property and gardens, as well as suffering and distress that the dogs must be experiencing.

5) Ways to improve the use of drone delivery technology within the ACT

In our modern world drones can be utilised for many services such as

- Bushfire management
- Agriculture management
- Emergency services
- Delivery of goods to remote communities
- Media
- Geological management
- Warfare

I do not believe that the use of drones in a suburban area for home deliveries is workable or effective.

6) Any other relevant matter

- The ACT Government imposed this trial on Bonython residents with no prior details about the trial taking place, or any consultation or consideration of the impact on people's lives. This indicates a failing on their part to be committed to the concerns of constituents and the local environment.
- We should have the right to freedom to live without the physical and psychological threat from noise, safety and privacy by technology that has been forced on us by a Government who only wants to get runs on the board as being innovative, without due care and concern for their constituents, **those who they should be trying to protect!**
- I am definitely NOT against drone technology and believe that it can play an important part in our future but definitely do not think that home deliveries in built up suburban areas rank in any importance or are realistically practical.
- I do believe that Wing have been granted free rein in the ACT and have ingratiated themselves through their largess with offerings of funding for community events and a percentage of profits for deliveries made.
- The current legislation surrounding drones is immature and it needs serious interrogating and reviewing. This should be done as a matter of urgency BEFORE any further drone deliveries operations are allowed to continue.

Thank you for raising the Inquiry into Drone Delivery systems in the ACT. I appreciate the opportunity to provide my comments to your Inquiry

Carol Vincent