



30 October 2020

Mr Benedict Lyons
Director, Airspace and Emerging Technologies
Department of Infrastructure, Transport, Regional Development and Communications
GPO Box 594
Canberra ACT 2601

Via email: drones@infrastructure.gov.au

Dear Mr Lyons,

RE: Emerging Aviation Technology Issues Paper

The Qantas Group (Qantas) appreciates the opportunity to provide feedback to the National Aviation Policy Issues Paper regarding the Emerging Aviation Technology. The below submission demonstrates the Group's ongoing engagement on this important matter and complements our previous submissions to the Review of Remotely Piloted Aircraft Systems (RPAS) Operations and the Inquiry into the regulatory requirements that impact the safe use of RPAS, Unmanned Aerial Systems (UAS) and associated systems. We have reviewed the paper from the potential impact and benefits to our operations and provide our response to your specific questions at Attachment A.

The safety of our staff and passengers is our number one priority, and Qantas acknowledges and supports the efforts of successive Australian Governments in establishing robust controls for the use and management of drones and other emerging aviation technologies.

Qantas would be pleased to continue a discussion with relevant government agencies to address the key issues of concern we see in relation to regulating and educating the growing industry for both commercial and recreational use.

Yours sincerely,

Mark Cameron
Head of Qantas Group Compliance, Aviation Services
Ref: GC 2020/0059

Attachment A

Qantas has reviewed the paper from the potential impact and benefits to our operations and provides the following responses to the specific questions raised in the discussion paper:

1. Do you agree with the proposed core principles for the National Emerging Aviation Technologies policy?

In general terms yes, but additional technical and implementation detail will be required as and when available. Technology moves faster than the development and drafting of regulations.

2. Will the proposed approach to policy development adequately allow for the future direction, operations and investments of your business/organisation?

Yes. As discussed in the paper, the use of RPAS potentially provides significant opportunities for a number of industries and functions. This includes more immediately realisable safety benefits, for example, a fall from heights people risk can be eliminated by use of drones. The interaction between Commonwealth and State agencies will be critical to allow these benefits to flow through to industry.

3. Are there any other approaches that could benefit the sector?

Qantas considers that safety and security implications must remain a critical point of focus for the aviation industry, whether it be disruption to airspace or aerodrome operations, interference or damage to infrastructure and property or terrorism activities.

A number of other problematic policy issues for the use of drones or UAS industry sit firmly within the various States and Territories jurisdictions, including, privacy, nuisance and liability for damage. Of concern is the ability for States and the Commonwealth to agree on a consistent regulatory approach, through domestic regulation to mitigate the undesirable aspects on both the community and the UAS industry itself. This will be a delicate balancing act which will likely not be achievable in the short to medium term.

We note that a UAS low level airspace industry working group was established under ASTRA and has developed a 'Vision and Objectives and Purposes' paper, relevant to this question. Qantas, as a member of ASTRA is supportive of this paper.

4. What level of service and regulation do you expect from the Government?

Qantas considers it appropriate that the Civil Aviation Safety Authority (CASA) retain regulatory oversight of RPAS operations in Australia. That said, the Regulator will need to develop close working relationships and processes with respect to drone activities with other Government entities (such as law enforcement, security agencies, Airservices Australia, other transport regulators and the like) to ensure effective management of RPAS operations in this country. Drones (UAS) are a true 'disruptor' technology that require a re-think of traditional governance and oversight models, including Regulation that keeps up with and indeed is at the forefront of technological evolution.

At present both the regulator and ANSP have seen a diversion of their already scarce human resource toward the drone (UAS) industry, which has a flow-on affect to their ability to manage traditional forms of aviation. The funding model for CASA means that traditional

aviation has largely funded their involvement in the proliferation of RPAS. In Airservices case, they assure industry that there is no cross subsidising from traditional aviation to RPAS however, it is difficult to understand how this is the case given the diversion of resources internally to managing drones.

Therefore, Qantas submits that future funding arrangements for RPAS need to be better understood to ensure that non-traditional forms of aviation are appropriately funded, and not at the cost of the traditional aviation industry.

5. What are your expectations of the Government's role and responsibilities in the management of drones and eVTOL vehicles?

Qantas considers integrated airspace management essential in ensuring the safety of all participants and the Australian public. A greater understanding of the airspace management costs for drones will be critical

This will come at a cost in the form of additional outlay or reduction of expected benefits from other investment. Therefore, a greater understanding of how this can be achieved is necessary.

6. What are the key opportunities that these new technologies could deliver for Australia?

Qantas considers that these new technologies will deliver significant opportunities for people transport capabilities, safety and security monitoring, large-scale farming activities, aerial photography and surveying and goods delivery.

As with any new disruptor type technology, consideration must be given to how this can impact the economy and the nature of employment in Australia. For example, where use of drones becomes widespread in goods delivery, this may cost jobs in transport/logistics services and traditional roles undertaken by helicopter operations. However, if viewed from a 'balanced scorecard' perspective it is likely jobs would be created in IT and drone operator services. The Government would need to ensure sufficient resources are dedicated to education and the applicable industries to ensure continuation of employment opportunities for Australians as the national economy recovers over the next decade from the economic impacts of COVID-19.

7. What are the most significant barriers to realising these opportunities?

At this point in time, Qantas considers the most significant barrier to realising any emerging technology benefits will be the economic impacts stemming from the COVID-19 pandemic. Availability of resources and funds and the ability for global talent to be sourced in light of closed national and state borders, will be particularly problematic over the next 12-24 months.

8. What issues or actions should the government prioritise to facilitate the growth of emerging aviation technologies?

Qantas' priorities for facilitating the growth of emerging aviation technologies are:

- Operationalising and implementing Low Level Airspace (LLA). This arises due to expected near term proliferation of new users such as RPAS and other mobility systems. Qantas considers that a new airspace operational concept that accounts for

these new users is required to ensure the continued safe, efficient, fair, and sustainable use of airspace into the future.

- Continued investment in RPAS technology and services to ensure Australia maintains its global position as a leader in emerging aviation technologies with a mandate to minimise over-regulation. Qantas recommends Government work with the RPAS industry (and the other related industries) to ensure optimal outcomes and benefits across the industry and for all associated users.

9. To what extent should Australia's approach be harmonised with approaches taken in other countries?

Qantas considers that harmonisation of global RPAS industry standards is crucial to the future success and growth, not only for the industry itself but other associated industries that stand to benefit from this technology. A more significant issue for Australia will be ensuring state and territory harmonisation, especially for those areas where operations are conducted across or close to state borders, such as bush fire protection or search and rescue activities which may occur in environmentally sensitive areas, such as national parks etc.

10. Are there other issues that the Australian Government should consider?

Policy planning needs to carefully consider the integration of future technologies like RPAS and eVTOL— including rockets, into any broader airspace design policy. The traditional aviation industry has invested heavily over many years with a strategy to implement the most cost efficient and environmentally responsible flight routes and procedures – and to align to international standards. Disruption by new entrants puts these investments – including Airservices Australia's investment in OneSKY - at risk, as the benefits from this investment is to be realised over an extended period. For example, OneSKY aims to deliver \$730m in efficiency benefits from efficient routing and associated procedures over a twenty-year duration commencing in 2025. The large cost of OneSKY has already been sunk by Airservices and Defence and therefore Government needs to transparently determine the reduction in benefits should Emerging Technology disrupt this.

Qantas recommends the Government consider the carriage of drones as a Dangerous Good, given the rapid rise in drones and their transportation on air transport services in ever increasing numbers. These drones or UAS all operate on lithium battery technology, with ever increasing technology to increase power output and battery numbers. These are classified as dangerous goods and represent an increase in risk to aviation safety as passengers are increasingly attempting to carry them in checked baggage.