Summary of feedback from Draft Unmanned Aircraft Integration Paper – *Taking flight: an aviation system for the automated age*

Summary

The Ministry of Transport released the draft of *Taking Flight: an aviation system for the automated age* (the integration paper) in September 2018, and sought feedback from key stakeholders.

23 responses were received from a mix of individuals, and representatives of government bodies, professional and commercial bodies, and association and advocacy groups.

Below is a broad summary of the common themes among the responses. The original responses did contain greater levels of detail, and these will be considered and incorporated into the final integration paper where appropriate.

Do you agree that New Zealand should be at the forefront of UA development? What does being at the forefront mean to you?

- Few respondents explicitly agreed that New Zealand should be at the forefront of UA development. Individuals representing government organisations and commercial groups often appeared to be more positive regarding New Zealand's position and ability to stay at the forefront.
- Individuals representing industry groups, especially General Aviation (GA), showed less positive sentiment towards New Zealand being a world leader. The common reasons for this was that New Zealand would not be able to allocate the same amount of resources to UA development as some bigger countries.
- Two individuals specifically believed that New Zealand should not be a world leader.
- Some respondents suggested that New Zealand could be a leader in niche areas of UA development or that it could be a "fast follower".

What are the greatest barriers we will need to overcome to achieve UA integration?

- The most common theme was the current limitations of the technology needed for UA integration, especially the lack of functional detect and avoid technology.
- Public and commercial acceptance of UA was identified as another barrier, with the perception of UA by the public potentially being something that holds back integration on a wide-scale.
- Concerns were also raised about the lack of clarity on how UA will interact with GA, especially unpowered craft.
- Some respondents noted that UA integration may require further regulations and legislation, and the lack of such regulation will be a barrier to UA integration.

What benefits will New Zealand see from UA integration?

- The agriculture industry was seen as the most likely sector to enjoy benefits from further use of UA and from UA integration.
- UA integration was expected to lead to greater levels of technology development in New Zealand, which could lead to more technology exports and an expanded technology sector.
- Full integration of UA could also lead to increased safety levels and reduced costs in the aviation sector.

- However, some respondents claimed that UA integration would not yield any benefits, with one respondent going so far as to say that the net result will be negative.

Do you agree with the areas we have identified as 'what does success look like?' Are there other measures of success we should include?

- There appeared to be an almost even split between respondents who agreed and those who disagreed with the provided definitions of success.
- Some respondents said that they did not agree with the definition of success because they wanted to know how the success measures will be quantified or monitored.
- Questions were raised around whether success is possible to define for rapidly evolving sectors.
- The only amendments suggested for the definition of success were:
    - adding a category to represent "Safety", which would also include measures to ensure privacy of the public
    - rewording references to GA to the broader term "existing users".
- There was a common underlying theme among GA representatives that success should not come at a cost of diminishing rights or increasing costs for GA groups.

What examples of UA operations do you believe will make the most positive contribution to New Zealand?

- The sectors and industry types which are expected to see the greatest benefits are:
    - Agriculture
    - Resource and border protection and monitoring
    - Any operation which is either high-risk or which has limited manpower
- Some specific examples were:
    - Lines inspection
    - Medium-distance delivery
    - Delivery to remote locations
    - Agrichemical application
- Some uses were described as being more sensitive, and to be treated with caution:
    - Flying cars
    - Passenger delivery
    - Pizza delivery

We have identified four building blocks that we believe are necessary to achieve UA integration. Under each building block there will be a programme of work. Do you agree with the building blocks we have identified?

- Approximately one third of respondents said that they agree with the four building blocks.
- Some respondents were hesitant to endorse the building blocks without an understanding of the work programmes which would be used to achieve UA integration.
- Suggestions were made for how to improve the building blocks:
    - Adding another block to address the public image and any public stigma regarding the use of UA.
    - Ensuring that a new block or an existing block includes measures or steps to ensure that current rights of GA users are not significantly reduced.

- Ensuring that government services are ready to evolve to meet the advancements of UA and their uses.
- A shift of focus for R&D work away from new technology and towards improving integration of UA and their operational methods.

Does the paper achieve its aim to provide certainty around the pathway to integrating UA into our aviation and transport system? If not, what do you believe is needed?

- Only small number of the respondents said that the paper provided certainty towards the pathway to integration.
- The respondents indicated that without further details on work programmes or next steps, they are unable to say that they have been provided with certainty.

Do you think the paper strikes the appropriate balance between enabling innovative uses of UA and addressing the safety, privacy and other risks associated with UA?

- The general sentiment from respondents was that the paper did not strike the appropriate balance between innovative use and addressing risks, primarily because the respondents wanted to see more specific work programmes and next steps.
- The primary concerns and perceived shortcomings were:
    - a lack of concrete plans and work programmes
    - a perceived lack of consideration for existing GA users
    - a lack of already completed policy analysis or detailed next steps.

Please indicate if you would like to be involved in areas of the work programme to deliver the vision. If so which areas are you interested in:

- Most respondents wanted to participate or be involved in future work programmes.
- Almost all respondents who wanted to participate further wanted to be involved in works regarding regulation development. Approximately one quarter wanted to be involved in research and development, one third were interested in IT & infrastructure, and a very minor portion were interested in funding and investment.

We think it would be useful to have an industry advisory group that will provide technical advice to the UA Integration Leadership Group (comprised of the Ministry of Transport, Civil Aviation Authority, Airways and the Ministry of Business, Innovation and Employment) on matters relating to the UA integration work programme. Who do you think should be represented on this group?

- The overall list of potential representatives was consistent across the respondents, and included:
    - GA users or representative groups
    - Recreational GA groups such as sport, ballooning, and gliding groups
    - NZDF
    - UA industry representatives including manufacturers, retailers, and operators
    - Local councils
    - UAVNZ
    - Model Flying NZ
    - Airports
    - Large commercial users, including power companies