30 October 2020

Department of Infrastructure, Transportation, Regional Development and Communications

Subject: Comments on Emerging Aviation Technologies National Aviation Policy Issues Paper

Sent via E-mail: drones@infrastructure.gov.au

On behalf of the Aerospace Industries Association (AIA) and our more than 300 member companies, we are pleased to respond to the Emerging Aviation Technologies National Aviation Policy Issue Paper (Policy Issue Paper). Our members are on the cutting edge of innovation and are leading the industry on developing emerging technologies such as Unmanned Aircraft Systems ("UAS") and electric vertical take-off and landing (eVTOL) vehicles that will revolutionize how goods and services are performed, and people connect.

UAS and eVTOL can bring significant benefits to our world, and we appreciate the Australian government's dedication to advocating and enabling these platforms. We agree that our goal should be to integrate these technologies into our airspace and that we must utilize the UTM systems created by industry to do so safely and efficiently. We believe that we must also establish a comprehensive and flexible counter-UAS security framework to respond to threats such as interception or interference with radio communications, cyber-security, aircraft safety, and potential collateral damage posed by these platforms.

However, we believe certain aspects of this policy paper should be reviewed, including:

- **Platforms:** UAS and eVTOL platforms must be evaluated from a safety and risk perspective. These new platforms will be integrating into a complex aviation ecosystem and, therefore, must be communicating with existing aircraft at similar altitudes to maintain the safety of the airspace. To enable the safe integration, we recommend the utilization of UTM, which will be a key enabler for the safe operation of UAS in low-altitude airspace. As operations continue to scale and autonomy increases, UTM will become increasingly relevant for eVTOL.
- **Infrastructure:** The Australian government recognizes the multi-modal opportunities and plans for facilities at existing aviation facilities and new infrastructure. We recommend planning for compatible land use around new assets, and collaboration among aviation regulators and industry is essential to ensure uniform infrastructure standards are developed to support these new aircraft fleets.
- **Timeline of Operations:** AIA and its members appreciate the Australian government's recognition that operations will occur across multiple time horizons. As stated, sUAS or eVTOL operations will differ in both volume and complexity in Horizon 1 than Horizon 3. The Australian government and industry should work together to ensure that these time horizons align with the operational realities for both sUAS and eVTOL operations.

- **Global Approach:** We believe that global collaboration among aviation regulators and industry is essential to ensure uniform infrastructure standards are developed to support these new aircraft fleets, including the following:

    - **Privacy and security:** Measures should be based on international standards, rather than individual nations creating their own policy.
    - **Noise:** Clarity is needed regarding the performance requirements that are intended to be used for Flight Information Management Systems (FIMS). AIA encourages the Australian government to collaborate with NASA, FAA, ICAO, and industry to inform a globally harmonized policy approach to noise management.
    - **Central Coordination:** UTM and UAM services should not be implemented in a single central system, but through a network of services under common rules and regulations. This distributed architecture will enable the flexibility and economic efficiency for the system to evolve and adapt to new technologies and market needs while maintaining the highest level of safety through regulatory oversight**.** A globally harmonized approach to air traffic management is essential to ensure key services are provided efficiently through a common framework across the world.

- **Tech Trials:** Pilot programs have proven to be successful in various parts of the world. While they can provide critical data to the regulator, any new tech trails must be created to allow commercial operations. The government should work with the industry during the early operations to build the data necessary for FIMS instead of creating a new pilot program that could slow down innovation.

AIA appreciates the opportunity to provide feedback on this policy paper and we anticipate our members will submit individual responses with further details.

Sincerely,

David Silver
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Aerospace Industries Association