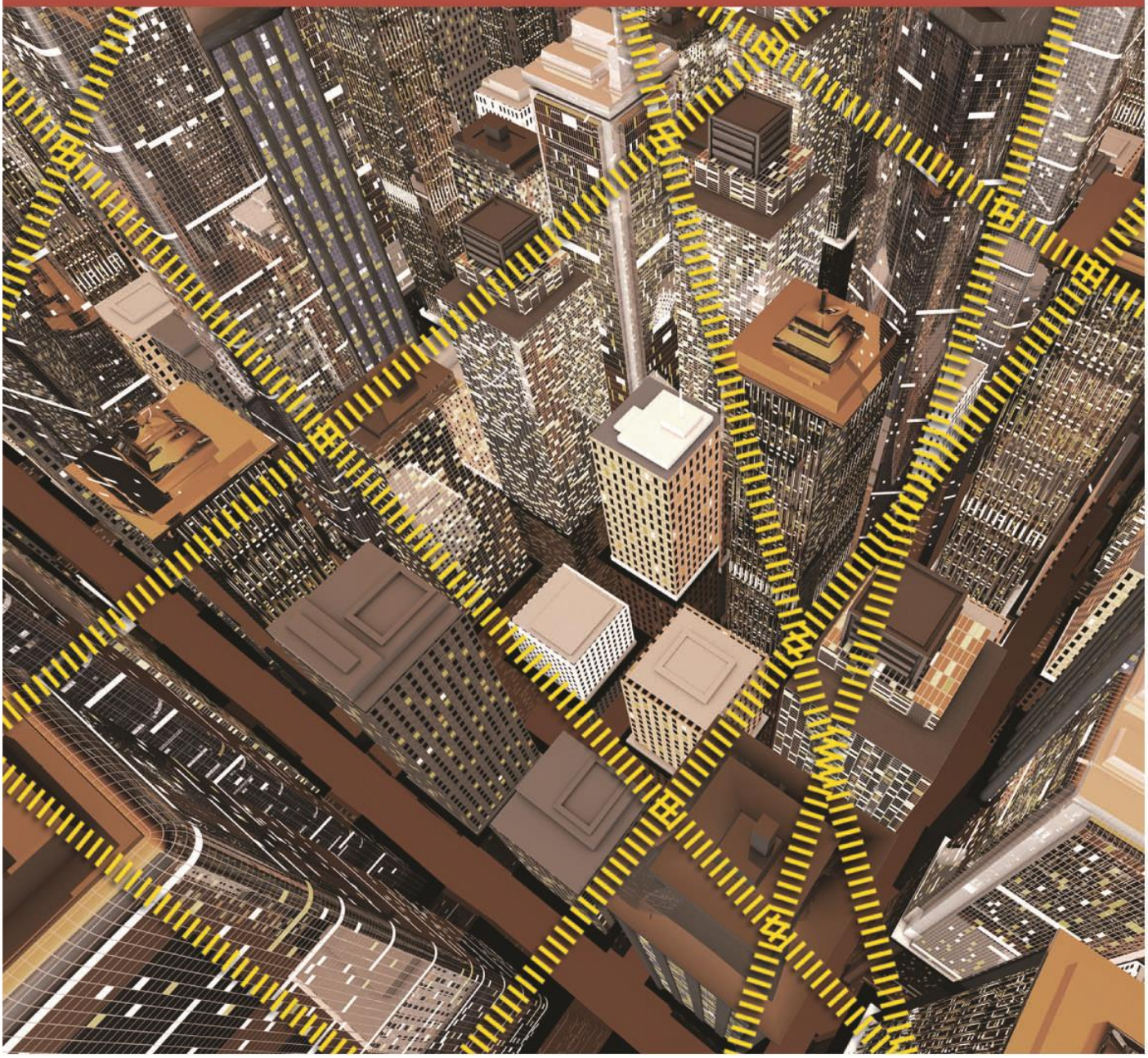
The Global AAM/UAM Market Map

AAM regulations, standards, CONOPS and roadmaps for passenger-carrying operations

Sample pages



AAM regulations, standards, CONOPS and roadmaps for passenger-carrying operations

*Thank you for downloading these sample pages of the **AAM regulations, standards, CONOPS and roadmaps for passenger-carrying operations** report. If you have any queries, please get in touch with us – contact details are below.*

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Introduction

How this guide works

This guide has been developed to bringing together in one document the work that has been done by regulators, standards bodies, industries and advanced air mobility eco-system developers to develop rules and guidelines for the safe development of electric vertical take off and landing (eVTOL) aircraft operations.

The documents are classified into the following sectors:

1. AAM Policy, CONOPS and roadmaps
2. AI, autonomy
3. Airspace management
4. eVTOLs and other AAM aircraft, including propulsion systems
5. Maintenance
6. Vertiports and infrastructure, including charging
7. Non-aviation stakeholders

What is advanced air mobility (AAM)?

Advanced Air Mobility (AAM) is a new aerospace industry sector that uses advanced aircraft to transport people and cargo. AAM aircraft are often highly automated and electrically powered and can take off and land vertically. What does AAM include?

- Aircraft: AAM aircraft include electric aircraft, electric vertical takeoff and landing (eVTOL) aircraft, and air taxis
- Infrastructure: AAM infrastructure includes airports, heliports, vertiports, and vertistops, UAS traffic management, charging, security.
- Operations: AAM operations include urban air mobility (UAM), regional air mobility (RAM), cargo delivery, public services, and private vehicle travel.

How AAM is regulated around the world

For regulators around the world advanced air mobility provides a huge regulatory challenge – effectively the development of an entirely new aviation ecosystems with complex relationships to existing regulatory frameworks and with the addition of new elements such as the role of non-aviation stakeholders and developing technologies such as autonomous flight, digital airspace management and artificial intelligence.

European Commission

eVTOLs and other AAM aircraft, including propulsion systems

Date	10 April 2024
Title	Commission Implementing Regulation (EU) 2024/1111 of 10 April 2024 amending Regulation (EU) No 1178/2011, Implementing Regulation (EU) No 923/2012, Regulation (EU) No 965/2012 and Implementing Regulation (EU) 2017/373, as regards the establishment of requirements for the operation of manned aircraft with a vertical take-off and landing capability
Description	The European Commission has adopted a package of secondary legislation on drones and vertical take-off and landing (VTOL) capable aircraft, which puts the final rules in place for the launch of Innovative Air Mobility (IAM), including air taxi services. The package is based on regulatory proposals from the European Union Aviation Safety Agency (EASA), published in Opinion No 03/2023 in August 2023. The legislation introduces a comprehensive set of requirements for piloted electric air taxis, spanning the domains of Air Operations (Air OPS), Flight Crew Licensing (FCL), Standardised European Rules of the Air (SERA) and Air Traffic Management (ATM).
Link	www.easa.europa.eu/en/newsroom-and-events/news/european-commission-adopts-regulatory-package-giving-go-ahead-vtol eur-lex.europa.eu/legal-content/EN/TXT/?qid=1716478399025&uri=CELEX%3A32024R1111

eVTOLs and other AAM aircraft, including propulsion systems

Date	23 January 2025
Title	Commission Implementing Regulation (EU) 2025/111 of 23 January 2025 amending Regulation (EU) No 1321/2014
Description	The European Commission publication sets out rules for continuing airworthiness for electric- and hybrid-propulsion aircraft and other non-conventional aircraft. Commission Regulation (EU) No 1321/2014 lays down the requirements for the continuing airworthiness of aircraft, including the qualifications and licences of the personnel responsible for the release to service of products after maintenance, but previous versions of the regulation did not fully cover all eVTOL aircraft types.
Link	eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202500111

ICAO

AAM Policy, CONOPS and roadmaps

Date	On-going
Title	Advanced Air Mobility Study Group
Description	The 41st Session of the ICAO Assembly recognized that the rapidly evolving advanced air mobility (AAM) ecosystem calls for work to be undertaken by ICAO, as well as the potential need for a globally harmonized framework, and global provisions and guidance. It agreed that the leadership role of ICAO is essential to achieve such harmonization and it expressed support for an expert group to be established to develop a holistic vision and framework, as well as to advise ICAO on activities in this area. The ICAO Secretariat established the Advanced Air Mobility Study Group in light of rapid technological advances of new entrants and the potential impact on the aviation ecosystem. The AAM SG assists the Secretariat in developing a holistic vision and framework regarding AAM. This is done in a coordinated manner with other ICAO expert groups, as appropriate, with the aim to support a safe, secure, efficient and environmentally sustainable integration of AAM operations, and to facilitate the development of the AAM ecosystem. Furthermore, the AAM SG advises on all AAM-related work to be done by ICAO.
Link	www.icao.int/safety/ua/Pages/default.aspx

Australasia

Australia – national

AAM Policy, CONOPS and roadmaps

Date	11 December 2024
Title	Regulatory roadmap update for Advanced Air Mobility in Australia
Description	According to CASA In the Immediate term (2024 to 2026) "we expect the volume of RPAS flights to increase due to the rise in goods delivery services," says CASA." Advances in technology will make RPAS more efficient, affordable, and capable of flying longer distances. This is likely to boost the use of larger RPAS in the commercial sector. Meanwhile, we expect the use of RPAS and model aircraft for sport, recreation, and education to remain strong. There will be greater demand for approvals of commercial operations beyond the standard operating conditions, and advanced operations we have not assessed before. The focus will likely shift toward implementing systems and services to support more complex operations in shared airspace."…In the near term "2027 to 2029" In the following 3 years, we expect AAM operations to launch in Australia. This will introduce the first commercial applications, including passenger transport in urban areas.
Link	www.casa.gov.au/resources-and-education/publications-and-resources/corporate-publications/rpas-and-aam-strategic-regulatory-roadmap#Download

AAM Policy, CONOPS and roadmaps

Date	April 2024
Title	AAM: Industry vision and roadmap" published by the Australian Association for Uncrewed Systems (AAUS),
Description	There will be three waves of AAM development, according to AAUS. Wave one will see initial use cases will be those that can be directly accommodated within the existing air navigation system, requiring minimal regulatory change, and posing no, or minimal, impact on existing airspace use and communities. The second wave can be characterised as one of adaption and transition. A period defined by a series of small changes to the existing ecosystem that permit an incremental expansion in the scope of viable and supported AAM operations. Urban Public Transport Scheduled urban public transport operations will begin. They are not expected to be cost-competitive with existing transport systems, but rather complement existing networks with new routes or a higher performance service (e.g., faster, service dependability, etc.). The third wave will see significant expansion in the coverage and capacity of scheduled passenger transport services across a growing network of urban and peri-urban vertiports.
Link	aaus.org.au

Vertiports and infrastructure, including charging

Date	June 2025
Title	Civil Aviation Safety Authority's (CASA) Guide to Vertiport Design proposals
Description	In June 2025 Australia's CASA) published a draft advisory circular (AC) on guidelines for vertical flight aircraft facilities at aerodromes designed for aeroplanes. "The purpose of this AC is to provide guidance to aerodrome and aircraft operators in the planning, design, and operation of both helicopter and vertical take-off and landing (VTOL) capable aircraft (VCA) facilities on an aerodrome that may have only been designed for fixed-wing aeroplanes," said CASA in a press release. It complements current guidance in AC 139.R-01 and AC 139.V-01 and work is underway to incorporate the applicable elements this AC in the Part 139 Manual of Standards. Draft AC 139.10 provides guidance on: • defining the intended vertical flight operations for an aerodrome • aerodrome specific downwash and outwash hazards • arrival and departure procedures • physical characteristics of vertical flight facilities • vertical flight aircraft versus taxiways designed for aeroplanes • obstacle limitation surfaces for vertical flight operations • visual aids for vertical flight aircraft – markings, lighting etc. • published information for vertical flight facilities.
Link	www.casa.gov.au/about-us/news-media-releases-and-speeches/guidelines-vertical-flight-aircraft-facilities

Vertiports and infrastructure, including charging

Date	May 2024
Title	Civil Aviation Safety Authority's (CASA) Guide to Vertiport Design
Description	The guide provides explanations and examples to complement CASA's advisory circular AC 139.V-01 which is largely based on experience with helicopter operations
Link	www.casa.gov.au/sites/default/files/2024-05/guide-to-vertiport-design.pdf

Australia – cities and regions

Australian Capital Territory

AAM Policy, CONOPS and roadmaps

Date	November 2020
Title	National aviation emerging technologies policy
Description	The Government of the Australian Capital Territory has published its National Emerging Aviation Technologies Policy covering drone and eVTOL industries.
Link	www.infrastructure.gov.au/sites/default/files/migrated/aviation/technology/files/submission-59-act-government.pdf

New South Wales

AAM Policy, CONOPS and roadmaps

Date	December 2022
Title	Electric Aviation How new technology could reshape regional NSW
Description	"Our vision is to ensure this new technology is fully integrated into a multi-modal network that benefits passengers….New and emerging electric aviation has the potential to reshape how people and goods travel in regional NSW" reads the statement which continues: "Emergency medical supplies, urgent freight and even passengers could soon be transported by state-of-the-art electric aircraft. Electric planes and drones could make transport cheaper, cleaner and more convenient than ever before. They could open new routes for passengers, connect communities and increase freight efficiency." The statement elaborates further saying "The electric aviation sector must grow in a manner that is safe, secure and considerate of the environment. It should enable economic activity, create new job opportunities and strengthen existing communities."
Link	ftr.prod.cds.transport.nsw.gov.au/sites/default/files/2022-11/Electric_Aviation_brochure.pdf

South East Queensland

AAM Policy, CONOPS and roadmaps

Date	6 February 2023
Title	Advanced Air Mobility Vision
Description	This technology will have an important role to play in an integrated regional transport network, complementing other services like rail and metro. It also presents an opportunity to unlock the South East's tourism market by providing new connections between our coast, island and rural destinations. The Paper also outlines how AAM will become an integrated part of SEQ's transportation network as the region looks to address issues of high growth including congestion, environmental sustainability and growing demand for affordable and accessible flight.
Link	wisk.aero/news/press-release/advanced-air-mobility-presents-opportunity-to-bring-economic-social-and-environmental-benefits-to-south-east-queensland

Victoria

AAM Policy, CONOPS and roadmaps

Date	19 September 2024
Title	Advanced Air Mobility (AAM) Action Plan
Description	This Action Plan sets out timing and the range of activities that the Victorian Government proposes to undertake to enable the transition to AAM and other zero-emission aviation technologies that promise significant economic, environmental, industrial and societal benefits.
Link	www.invest.vic.gov.au/opportunities/advanced-air-mobility