airservices australia

Leveraging Technology to Enable Integrated Airspace

December 2024

Strong growth in the emerging aviation market

Our modelling indicates there will be 60.4 million drone flights in Australia by 2043

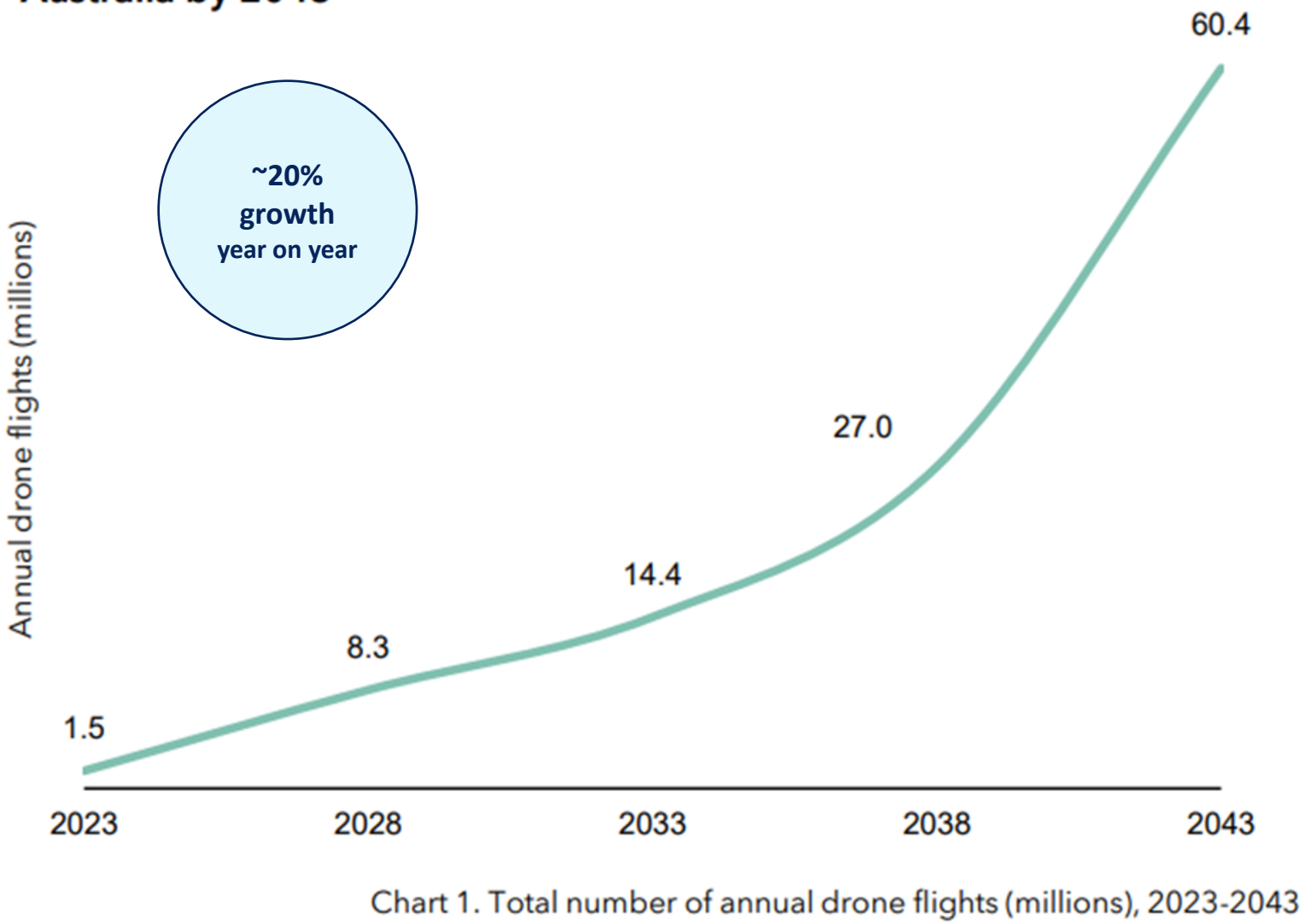

Chart 1. Total number of annual drone flights (millions), 2023-2043

Image credit: AMSL Aero

Safer

Greener

Efficient

Equitable

Integrating new & existing airspace users safely & efficiently

airservices

Cutting edge digital solutions to safely incorporate UAS & enable future integrated airspace

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Flight Information Management System (FIMS)

Development and launch of the new backbone of the uncrewed traffic management (UTM) ecosystem.

Drone Surveillance Capability

Leveraging real-time drone surveillance at our airports across Australia and developing enhanced capabilities.

Enabling Future Airspace Integration

Ensuring our data and capabilities are valuable for UAS and AAM ecosystems and enable future integration with crewed aviation.

What is FIMS?

Airservices Australia is responsible for providing safe, efficient, secure and environmentally responsible services for all Australian administered civil airspace, including equitable access to that airspace, now and into the future.

In partnership with Frequentis, Airservices on behalf of the Australian Government, is developing the Flight Information Management System (FIMS) to seamlessly integrate drones, air taxis and other uncrewed aircraft into Australia's busy airspace. FIMS is set to launch in late 2025.

- ✓ **Backbone of the UTM ecosystem**
- ✓ **Digital & future ready**
- ✓ **Driving future innovation**

The UTM ecosystem & FIMS

FIMS is expected to go-live in late 2025

FIMS will be available Australia wide, however focusses on controlled airspace near civil aerodromes

How FIMS fits in

- Australia is adopting an open market approach to UTM services
- FIMS will facilitate communication between the ecosystem and conventional air traffic systems.

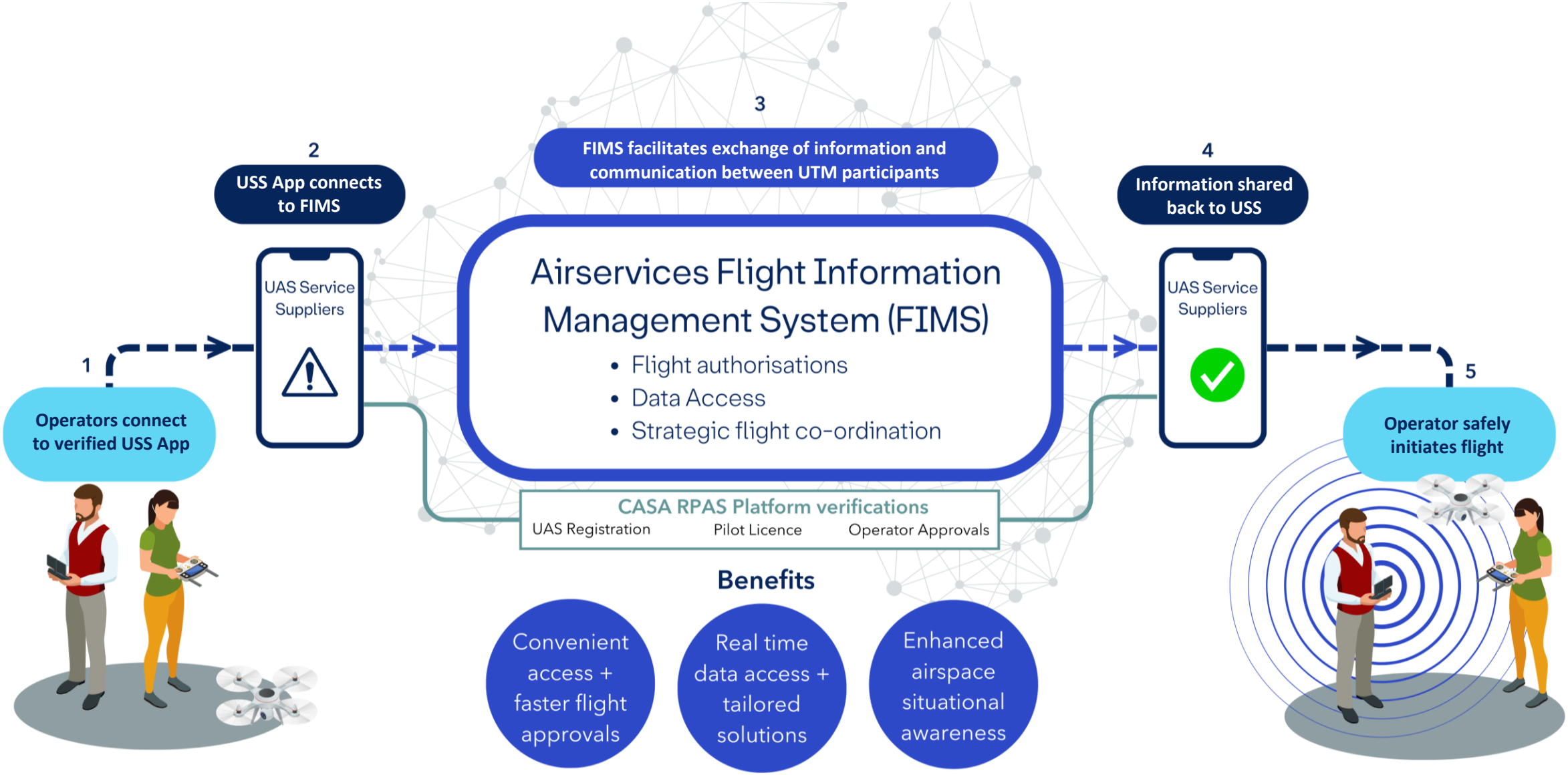
Connecting to FIMS

- UAS Service Suppliers (USS) connect operators to FIMS.
- A USS may be provided as an app-based service or integrated into existing systems.

Where FIMS will be available

- Voluntarily in all low-level airspace across Australia.
- The initial benefits of FIMS are focused on controlled airspace near civil controlled aerodromes

The FIMS user experience journey



Enabled UTM services

Services expected to be available from late 2025

Airspace Awareness
Real-time information about airspace boundaries, restrictions, and other airspace considerations

Operational Planning
Create, manage and refine operational plans which can be submitted to the UTM Ecosystem to enhance situational awareness

Strategic Coordination
Information about overlapping operational plans submitted to the UTM ecosystem

Airspace Authorisation
Provides authorisation up to 400 ft Above Ground Level near civil controlled aerodromes and in selected restricted airspace

Future UTM Services

Additional services and data in the UTM Ecosystem will be developed in a modular and iterative manner.

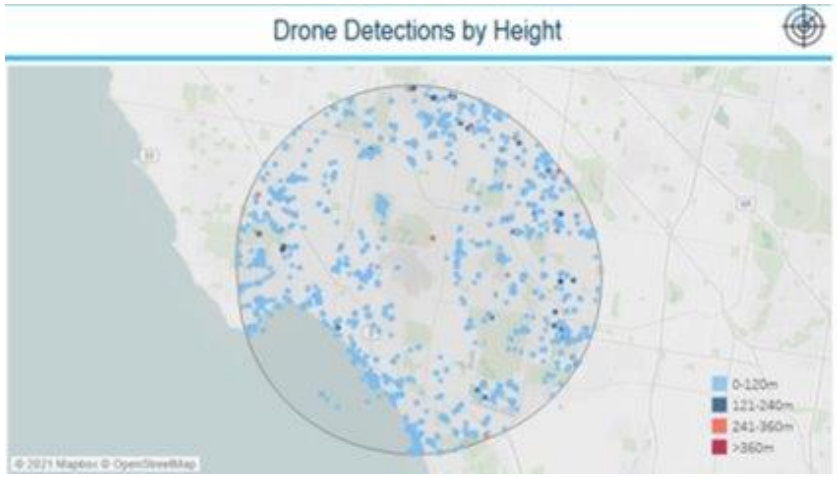
Ecosystem elements will be built and refined gradually, based on real-world experience.

Building foundations through airspace authorisation trials

- The Automated Airspace Authorisation trial, launched in May 2021, includes **digitally authorising requests for Remotely Piloted Aircraft Systems (RPAS) flights** within 3 nautical miles of selected civil controlled aerodromes.
- **The trial removes barriers to airspace access** for eligible licensed and registered commercial drone operators, providing fast authorisations to safely fly in controlled and restricted areas around select airports and other locations.
- This is now available at **10 airports** around Australia.

Drone surveillance to inform our overall safety picture

Drone Detection at Civil Controlled Airports – 29 locations



- In 2020, Airservices, in partnership with CASA and Australian Defence, installed drone detection sensors at all 29 civil controlled airports.
- These sensors determine the height, position and type of drones in the vicinity of airports.
- The data from drone detection helps inform an overall safety picture:

✓ **Supports investigation & enforcement of unlawful drone activity**

✓ **Drives informed decision making across Government**

✓ **Enables cause analysis to improve overall safety**

✓ **Allows us to investigate reported drone sightings near traditional aircraft**

✓ **Better collaboration with aviation stakeholders on drone trends and activities**

Enhancing our surveillance capability to keep pace with technology, improving awareness of UAS operations

Key Benefits:

Enhancing safety for airspace users.

Leveraging artificial intelligence to reduce 'clutter' and show only information that is important for traffic management decisions.

Improve our understanding of where UAS are operating near airports where we provide a service.

Next Steps:

STEP 1: We are testing & trialling to shape a view of what our future requirements look like.

STEP 2: Planning to enhance capability through iterative releases commencing in 2026.

Cutting edge digital solutions to safely incorporate UAS & enable future integrated airspace

Flight Information Management System (FIMS)

Drone Surveillance Capability

Enabling Future Airspace Integration

Meeting evolving industry needs and community expectations

- ✓ Future performance - safety, capacity, cost efficiency, resilience and environmental outcomes
- ✓ Growth of an emerging industry
- ✓ Automation, digitisation and intelligence systems
- ✓ Demand for tailored services