Geofencing and Volumetric Separation Concepts

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What is the actual air risk of operating here? How high is “high”?

Requires Separation
Manned-Unmanned
Unmanned-Unmanned
Motivation and Overview

Qualitative, Rule-based
Single Operations
Semi-automated Approval and Allocation
Limited Operational Options
Static Allocation
Motivation and Overview

Quantitative, Risk-based (TLS)
Single, Multiple Operations
Automated Approval and Allocation
Flexible Operational Options
Static and Dynamic Allocation

Aerodrome Analysis (and Exposure)

MAP NOT TO SCALE – NOT FOR NAVIGATIONAL PURPOSES
Motivation and Overview

Quantitative, Risk-based (TLS)
Single, Multiple Operations
Automated Approval and Allocation
Flexible Operational Options
Static and Dynamic Allocation
Airspace Modelling

Example Monthly Traffic Profile
Geofencing and Volumetric Separation Concepts - Single Unmanned Aircraft

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Geofencing and Volumetric Separation Concepts - Single Unmanned Aircraft

\[ z = f(p(c), \epsilon_{TLS}, \ldots) \]
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Geofencing and Volumetric Separation Concepts - Single Unmanned Aircraft
Geofencing and Volumetric Separation Concepts – Multiple Unmanned Aircraft

\[
z_n = f(p_1(c), p_1(c), \ldots, p_n(c), \epsilon_{TLS}, \ldots)
\]
Geofencing and Volumetric Separation Concepts - Multiple Unmanned Aircraft

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Geofencing and Volumetric Separation Concepts - Brisbane

- VLOS
- BVLOS

Supports Dynamic Allocation

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