SKYPORTZ RELEASES VERTIPAD PATENT THAT ENABLES NEW URBAN LANDING SITES FOR AIR TAXIS

News / Manufacturer

Skyportz released its innovative vertipad patent that ameliorates downwash and outwash at Avalon International Airshow in Melbourne. The modular vertipad patent addresses one of the stand-out issues for Advanced Air Mobility in urban locations – amelioration of downwash and outwash. This issue has been highlighted by the FAA in January in their Engineering Brief 105A where the American air regulator indicated that vertipads will need to have a wind safety zone beyond the landing surface. This safety zone has only been defined as where the windspeed exceeds 34.5 mph.

The actual required physical dimensions of the safety zone will likely differ between aircraft but will result in significant additional footprint requirements. The Swinburne University study released today has indicated that the Skyportz modular vertipad may dissipate energy up to 250% faster than an air taxi landing on a flat tarmac.

Skyportz CEO Clem Newton-Brown commented: “The Skyportz vertipad patent has some very real applications as cities move to establishing vertiport networks outside of existing airports and helipads. It means that with our vertipad you can safely use less land or fit more pads onto smaller plots. The vertiport infrastructure is the missing piece of the puzzle for this industry. Without a multitude of new vertipad landing sites in places people want to go, the aircraft will never fulfil their

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potential. The interest from the property industry is rapidly building - we envisage that those properties with vertipads will attract higher rents as businesses seek to provide air taxi services for customers. The Skyportz vertipad patent provides the solution."

Professor Justin Leontini,Department of Mechanical and Product Design Engineering Swinburne University of Technology said: “The design concept of the Skyportz vertipad could dissipate power up to two and a half times faster than if an air taxi were to use a flat concrete landing surface. The first iteration of the modelling conducted by Swinburne University has experimented with different landing surface treatments described in the patent. Our next step will involve adding mechanical devices detailed in the patent under and around the vertipad which we expect will induce a Magnus effect and dissipate energy at an even higher rate while directing flows to desired zones away from waiting passengers.The practical implications for this research are that the safety area requirements around a vertipad may be reduced, enabling operations from smaller footprints safely”.

International air regulators and future air taxi and vertiport operators have expressed an interest in the Skyportz vertipad patent, which will eventually be made available in emerging global markets under licence.Skyportz says it aims to break the nexus between aviation and airports and enable commercial and industrial property developers to host vertiports.

Australian air regulator, CASA recently released vertiport guidelines, signalling a commitment to facilitate Advanced Air Mobility in Australia.EASA and FAA have also released vertiport guidelines, signalling the wide policy support for new landing sites globally.

Skyportz vertipad is protected by Australian provisional patent number 2024901767 with all international rights reserved. Skyportz intends to licence manufacturing and distribution of the vertipad into all global markets as they emerge.

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