



# SWOOP AERO

*Making access to the skies seamless  
with the world's trusted  
drone logistics platform*

GAA/RUR1

GAA/RUR49





# Executive Summary

*Swoop Aero was founded to transform the way the world moves essential supplies. We are ready and able to support **a transformation of the Tasmanian rural health system***

## Executive summary

The Rural Health Inquiry of Tasmania is seeking to explore the implementation of innovative solutions that will curb and reduce the impact of persistent and chronic diseases within the Tasmanian population. Scottsdale Hospital has identified the Swoop Aero medical drone logistics platform as a solution to reduce critical journey times pertaining to pathology sample transportation and increase the capacity of the supply chain to service rural populations.

## The Challenges

The rise and worsening of chronic diseases, such as cancers, diabetes, respiratory and heart diseases have continued to plague the Tasmanian health system in recent years. For example, rates of type 2 diabetes has risen from 5.5% in 2009 to 8.3% in 2019. Heart diseases affects 6.5% of the Tasmania population and approximately 33.3% of the population suffer from mental health conditions. Moreover, the shortages in GPs and healthcare professionals based in rural clinics has compounded the quality and availability of essential healthcare services. For specialist treatment, individuals are often required to travel long distances to seek medical attention from a metropolitan health facility, or travel to Victoria or the mainland.

## The Solution

Integration of air logistics alongside traditional transport and operated as a single network provides an opportunity to transform the supply chain. In healthcare this means seamless urgent and routine transport of supplies and samples, keeps the supply chain moving smoothly at all steps of the way, with reduced human interaction, faster delivery times, and a safer, more comprehensive solution.

Transforming access to healthcare with autonomous logistics is Swoop Aero's mission

## Swoop Aero

Swoop Aero is an Australian drone-powered health logistics company, founded to transform the way the world moves essential supplies. The Swoop Aero air logistics platform leapfrogs ground-based solutions to existing transport and infrastructure barriers. The organization integrates air transport into the last and first mile medical health chain to enable the reliable provision and distribution of vaccines, routine medications, urgent pathology samples, and PPE equipment.



# How we build resilience in health supply chains

*We are ready to assist the Tasmanian Government in building **a resilient and robust health supply chain**; through innovation, technological ingenuity and aeromedical logistics*

## **Transport of pathology samples**

Swoop Aero has experience of transporting a range of different pathology samples, requiring cold chain conditions, differing levels of dangerous goods packaging, and with differing levels of urgency. We have transported infectious samples (dangerous goods) according to IATA dangerous goods requirements, including TB sputum sample, HIV viral load samples, cholera stool samples, and blood samples covering a range of different requirements.

## **Pharmaceuticals & vaccine distribution**

Transport of vaccines under cold chain conditions is Swoop Aero's bread and butter. We also have extensive experience of transporting routine pharmaceuticals required by distant clinics, so that they can re-stock on-demand rather than holding expensive inventory of unnecessary goods. Emergency deliveries have also become a commonplace occurrence for the operations team, given the environments in which we operate, and the lack of any alternative method for transporting much-needed medical supplies

## **Reducing human interaction in the supply chain**

Our aviation safety procedures include cleaning and decontamination procedures, which work alongside the technology we have created to massively reduce the human interaction required with the aircraft, and ensure that the likelihood of transmission of any communicable disease is kept to a minimum. This is been essential in Africa..

## **Speed & safety of delivery in a crisis situation**

Our aircraft travel at a standard speed of 115 kmh, reaching their destination in under 60 minutes every time. We track our aircraft at all times, and thus know exactly where the payload is at all times. Furthermore, we have rigid safety procedures that are in line with local regulatory and IATA guidelines, so that we know the cargo is safe and sound on its journey.



# Why the health supply chain needs air logistics

*Drone logistics will be a critical part of implementing the [Smart Cities framework](#) and developing [Gateway cities across Australia](#)*

Swoop Aero are deploying drone delivery infrastructure for healthcare, leveraging the skies and bridging the gap between healthcare providers and patients.

COVID-19 has only served to highlight the need for solutions to overcome existing infrastructural, logistics and geographical challenges, and help build a resilient health supply chain in the face of future global public health events.



## Adaptive and agile

The integration of **drone logistics alongside traditional transport methods, operating as a single network**, provides an opportunity to transform the supply chain, and future proof the provision and accessibility of essential supplies.

Drone delivery networks can improve the **efficiency of the health supply chain** across Tasmania. They will also assist with vaccine distribution logistics for COVID19, when the time is right.

## Eco-friendly and sustainable

Drone networks are a **smarter, more environmentally sustainable alternative** to the existing ground transportation methods of the health supply chain.

Swoop Aero's ground infrastructure has a minimal impact on public space and our aircraft are electric.

We are committed to being a **green company of the future**.

## Resilient and robust

Using drone logistics to add an airborne plane to the supply chain increases its resilience and improves **robustness in the face of disruptions such as COVID19**.

Swoop Aero **manufactures all aircraft in Australia**, which means the local supply chain is fully robust in case of further disruptions to international movement of goods and people.



# How Swoop Aero is creating value at home

We are an *impact-driven company* creating high tech local jobs whilst improving lives and future-proofing urban and regional areas

We create

## local centers of excellence

Swoop Aero are creating local high tech jobs which will be a crucial part of Australia's economic recovery.

We contribute to

## smart cities infrastructure

By integrating technology within existing municipal structures to increase operational efficiencies we drive towards a more technology enabled future.

We save and improve

## lives

Faster access to better healthcare for Australians living across urban and rural areas can close the gap and save lives.

### Positioning Australia on the global innovation map

The full suite of software and hardware is developed, designed and built in our Port Melbourne advanced manufacturing facility.

### Deploying human centric technology

Swoop Aero leverages new technologies in the construction of human-centric centers in both cities and rural areas.

### Improving access to healthcare

Improving the connection between rural and urban areas will allow better access to healthcare commodities & pathology services.

### Developing tomorrow's skills in urban & regional regions

Wherever we operate, we employ and train a local team in functions ranging from hub operations managers to ground operators.

### An inclusive technology

Drone infrastructure optimises the health outcome of isolated community members, such as the elderly, and enables fast response times when a public health emergency arises.

### Faster response times

The drone supply chain can ensure faster delivery times, and a more equitable provision of healthcare supplies across an expansive geographical area.

“

***We are one in a handful of companies able to do what we do. We are already changing lives across 4 countries - it's time to drive that same impact back home.***”

***Eric Peck***  
***CEO & Co-Founder***



# How we roll out an initial flight route

*High level implementation plan to ensure a safe, rapid and seamless roll-out of the medical drone logistics platform across Tasmania.*

## Goal

Increase the efficiency, speed and turnaround times of pathology samples between North Eastern Soldiers Memorial Hospital in Scottsdale and surrounding rural health facilities. Scale up network to support the rural health network, including pharmacies, hospitals and GP clinics within a 130 km radius. Successfully expand the number of delivery network routes in the Northern region of Tasmania.

## Plan

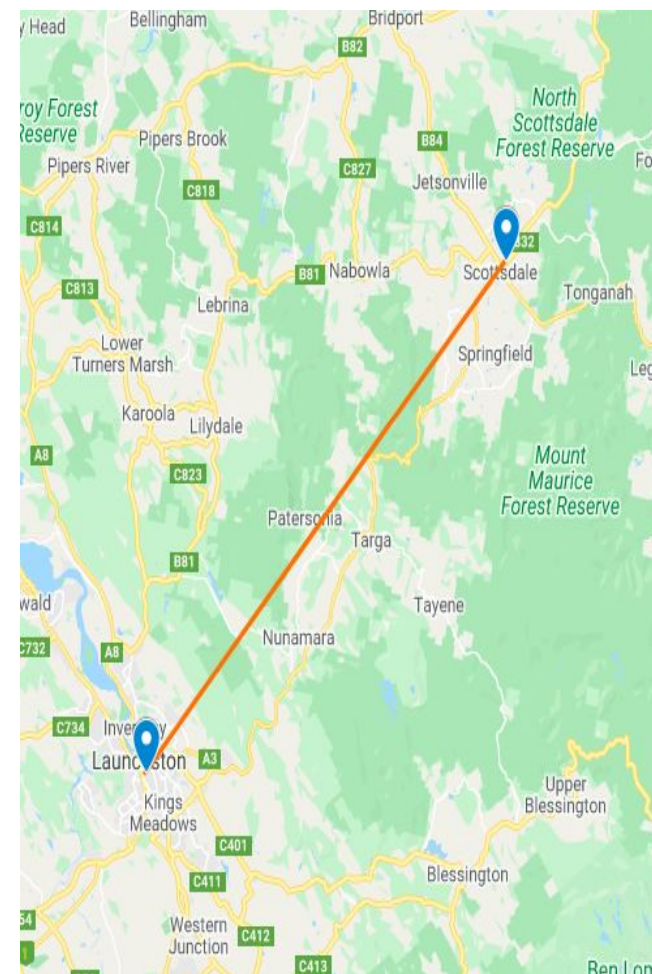
- Train local healthcare staff where necessary
- Undertake community engagement and education activities
- Conduct site surveys to identify suitable takeoff and landing locations
- Train relevant healthcare professionals to handle cargo and interact with the aircraft
- Undertake daily emergency flights between the hospital and central distribution hub.

## Outputs

- Undertake emergency flights to deliver emergency blood products, samples and results
- One Swoop Aero team member in Tasmania for the first month of operations to support the establishment of the network, community engagement activities and technical support.

## Consideration

- The hospital is located within restricted airspace, with mountainous terrain in the immediate locality.
- 2 aircraft more agile and faster response time, allows multiple flights per day, and week.





An aerial photograph of a white, fixed-wing drone flying over a winding river and a dense forest. The drone is positioned in the center of the frame, with its wings spread. The background shows a vast, hilly landscape with a river meandering through it. A small yellow hot air balloon is visible in the distance on the right side. The entire image is overlaid with a semi-transparent white rectangle containing text and a quote icon.

“

***We've built the world's leading  
complete platform for drone logistics***

*and*

***We seamlessly integrate it into the air  
to realise the next step change in  
agility, strength, and efficiency.***

”

***Eric Peck  
CEO & Co-Founder***



# What we do

We provide the complete technology platform to seamlessly integrate drone logistics into your operations; *we are the wings that strengthen safe hands*

**Our core service commitment is to provide the world's leading technology platform for safe, reliable and sustainable drone logistics.** The key to your success is that we provide a fully integrated and connected aviation platform, not just a drone; which is supported by advanced technology that sits behind everything that we do. For a fixed price, we provide and guarantee everything required to run sustainable, reliable, and safe on-demand drone logistics.

We have a **strong safety and regulatory record** that enables you to succeed, with experience getting advanced regulatory approvals in Australia, New Zealand, Malawi, Mozambique, Vanuatu and the DR Congo. Our top down approach to developing a safe aviation system means that we have had no technical in-flight failures to date, and our back-end software is comprehensive and easy to use for planning, monitoring, and administering flights, anytime, anywhere.



**Trusted to deliver**

by the biggest names in global logistics

**Awarded for our life-changing technology**

across our industry and beyond

**Inspiring through our impact**

around the world



**The New York Times**

Good Tech Award Winner (2018)

**TECH23.2018**

Industry Winner



Excellence Award Winner 2019  
Humanitarian Excellence Award Finalised 2020

Commercial in-confidence



ABA100 Winner of the  
Product Innovation Award:  
2020

**FINANCIAL REVIEW**

**THE AUSTRALIAN**

**smartcompany**

**ABC**

**BBC**

**The New York Times**

**9NEWS**

**ausbiz**

**FT FINANCIAL TIMES**



**Patrick J. McGovern**  
FOUNDATION





***“ We founded Swoop Aero to transform the way the world moves essential supplies by making access to the air **seamless** ”***

***Eric Peck  
CEO & Co-Founder***



# Our story

*By combining leading expertise in military aviation and robotics, Swoop Aero's platform was built from day 1 to provide the complete infrastructure for sustainable, reliable, and safe drone logistics*

**Swoop Aero was founded** in 2017 by former Air Force pilot Eric Peck and robotics engineer Josh Tepper after they got asked by the Australian government whether a drone could be used to transport chemotherapy medication in rural Australia. They realised that most companies tried to turn toys into a delivery drone, and that by combining the founders experiences, they could take the systems processes that surrounded the 70 tonne Hercules and minimise them into a 20 kg electronic, 3D printed autonomous aircraft to deliver safely, reliably, and sustainably; every day of the week.

In 2018 the **company was awarded the first world's first-ever competitive tender for medical drone delivery** jointly by the Vanuatu Government and UNICEF. Swoop Aero deployed its platform for the first time, delivering vaccines across two island groups. They proved that sustainable, reliable, and safe drone operations could have tangible health outcomes, and be operated entirely off-grid, with little supporting infrastructure

The **core Swoop Aero platform has been proven to sustainably reliably and safely operate in some of the world's most challenging environments**; and, underpin advanced BVLOS approvals in 5 countries. To date the platform has enabled thousands of medical deliveries, carried over 20,000 doses of vaccines, anti-venom, blood, COVID samples, enabling hundreds of hectares of flood and disaster mapping, and totalled over 100,000km of BVLOS flight.



1

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The newly formed team at Swoop Aero identified from day 1 that it was more than about building a drone and that they needed to **build the complete end-to-end infrastructure** to enable the seamless integration of drone logistics into the airspace.

Following the outstanding success in Vanuatu, **the Swoop Aero team continued to expand operations over the next 12 months** winning a number of competitive tenders to commence drone operations. They started operations DR Congo with the Gavi & the Gates Foundation in July 2019, in Northern Malawi with USAID in November 2019, in Southern Malawi with UK AID & UNICEF in January 2020 & in Mozambique with VillageReach in Mar 2020.

**Backed for a third time by Australia's leading VC firms and driven by impact**, Swoop Aero now offers its core platform exclusively to partners who look to have an impact in their operations. From wildlife monitoring to surf life-saving patrols and urgent blood deliveries, our partners are having a genuine impact day to day, seamlessly enabled by the Swoop Aero platform.



# Our leaders

*Strong experience across commercial, government, and NGO sectors combined with a deep knowledge of logistics implementation makes them unique to lead a core team of 30 across 5 countries*



## Eric Peck, CEO & Co-Founder

Eric has led the commercialisation of Swoop Aero's service, overseeing the successful **real world implementation** of the system while ensuring customer satisfaction in Vanuatu, Africa, and the Australasian region, and underpinning success by raising three rounds of Venture Capital. His background includes **9 years as an Air Force Pilot** and consulting experience at **Deloitte**.



## Josh Tepper, CTO & Co-Founder

Josh has led the development of the Swoop Aero system **from prototype through to a commercially successful product**. Josh developed is a **Mechatronics Engineer** with a wealth of knowledge in UAS Robotics, Automation, and Aerospace manufacturing, and brings experience managing multi-million dollar engineering projects across these industries.



## Lewis Hill, Chief Pilot & Director Flight Operations

Lewis has overseen the development of fully compliant **operations procedures and training material**, feeding his aviation knowledge into the development of software and hardware for real-world readiness of the system. Lewis was previously a pilot in the Air Force for 15 years, and brings a wealth of experience within the aviation industry as an **Air Force Flying Instructor, Captain and Test and Evaluation Pilot**.



## Sabrina Ravail, Chief Commercial Officer

Sabrina leads the commercial strategy and drives the **successful implementation of new global operations**. Sabrina brings ten years of commercial development experience at multinational companies including Revlon, Lorna Jane and Porsche Design. She also started a successful NGO, supporting integration and refugees in Germany.



## Georgia Brown, Head of Business Operations

At Swoop Aero Georgia has led the **development of sustainable business processes** and the continued growth of Swoop Aero's cohesive and inclusive team culture. Prior to joining Swoop Aero, Georgia has 10 years of experience working within high growth companies to actuate the CEO and executive leaders' vision for the business.



## Zachary Kennedy, Head of Regulatory Strategy

Zac leads **regulatory engagement** in current and future areas of operation to ensure that Swoop Aero works positively with Aviation Authorities to best serve community needs. Before Swoop, Zac worked for the **Civil Aviation Safety Authority (CASA)**, as well as the Qantas Group where he focused on Regulatory Engagement, Safety Management, and Group Assurance.



# Our experience

*The core Swoop Aero platform has been proven to sustainably reliably and safely operate in some of the world's most challenging environments; and, underpin advanced BVLOS approvals in 5 countries.*

## Republic of Vanuatu

**1st vaccine ever delivered by drone**

20% of children do not complete basic vaccines; we helped improve vaccination rates for an area of 81,000 people

Covered 1,344 km<sup>2</sup> of mountainous terrain, unreachable by road otherwise due to archipelago geography

**99% reduction in critical journey times**, e.g. for life-saving oxytocin

## Democratic Republic of Congo

**1st drone port in DRC & 1st BVLOS flight approvals**

Largest drone network in the world, covering 22,000km<sup>2</sup> to service **100 villages** and **500,000 people**

96% reduction in critical journey times

**233% increase** in provincial health supply chain drone operations

## Republic of Malawi

**1st remotely piloted aircraft from Australia**

Servicing 88% of the total district population affected by **HIV/AIDS**

**70% reduction** in time taken to get test results

Emergency **life-saving** deliveries of rabies vaccines and X-pen bottles

**93% faster** transport of medications and samples

## Republic of Mozambique

**1st BVLOS flight approvals in Mozambique**

Goal is routine transport of pathology samples for TB - up to 67% of samples are lost before reaching the lab

Full **SORA completed** for flights over populated areas by UK Aid funded technical consultant, ex-CAA (UK) and RAF

## Australasia & Pacific region

**Full operational procedures for BVLOS approved by CASA Australia and CAA-NZ**

Extensive experience with SORA regulatory approvals alongside CASA and CAA-NZ

Government-level buy in across Asia, Australia and New Zealand

**Launching medical deliveries in Q4 2020** in Australia alongside our healthcare partners

## Scotland & the UK

With strategic partner Skyports, **Swoop Aero is working with NHS Scotland to support the delivery of COVID-19 vaccines and samples**

We attained BVLOS approvals to operate in the Highlands and Isles of Scotland

We are reducing critical journey times, improve availability and accessibility of the COVID-19 vaccine under specific cold chain conditions.





# Get in touch

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Commercial in confidence