

# DRONES *deliver vaccines to* REMOTE VILLAGES

FOR THE PEOPLE OF VANUATU, A NEW VACCINE DRONE DELIVERY SERVICE IS POTENTIALLY LIFE-SAVING. HERE'S HOW ONE AUSTRALIAN COMPANY IS IMPROVING THE HEALTH OF THIS ISLAND NATION.

Words Helen Foster

Vanuatu is a beautiful country, but what makes it so incredible to visit can also make it hard to live and work in.

“Vanuatu is really unique. It’s in the middle of the Pacific and it’s made up of 65 inhabited islands spanning more than 1,000 kilometres,” explains Eric Peck, co-founder of Swoop Aero, a Melbourne-based company behind a life-changing drone scheme. “They are volcanic islands with really mountainous terrain in the middle, with most of the villages around the edges – but it gets a lot of rain, which can make roads impassable.”

A lack of infrastructure between villages makes healthcare particularly hard to deliver. The Vanuatu government appreciates this difficulty, so in 2018, with the support of humanitarian group UNICEF, it conducted the world’s first trials of drone-delivered vaccinations. Two companies took part in the process, and Swoop Aero ultimately won the contract.

## FLYING HIGH

If you’re imagining tiny drones like the ones hobbyists fly around at the weekend, think again. The drones Swoop Aero uses have a wingspan of 2.5m and are controlled by satellite. They can fly into hard-to-access areas, and land within 2m of their assigned drop-off point. Each aircraft is equipped with a compartment for carrying vaccines, and ice packs keep the medications cool enough to remain stable. Drones are loaded at a main hospital, then flown into the villages, where a healthcare worker is waiting to administer injections.

“Until this point, the village healthcare centres were resupplied once a fortnight or once a month, but there wasn’t a lot of information as to exactly when that would be,” Eric says.



“Children would turn up to be vaccinated, there would be no stock and they’d have to leave”.

With some parents walking several hours to the medical centre for that first appointment, many couldn’t return to try again a second day. The result was that up to 20% of the children on Vanuatu weren’t vaccinated against diseases such as hepatitis B and tuberculosis.

Now, they can be. Drones arrive at a set time and day, with healthcare workers waiting for them on the ground.



Medical supplies being delivered to a village in Vanuatu.

**LEFT**  
One-month-old baby Joy Nowai was the world's first child to receive a vaccine by drone.

With a potential flight time of up to an hour, and speed of up to 96km/hr, the drones can deliver to a number of villages on the same day. Before, healthcare workers could walk for as long as two days to reach remote communities.

"It's extremely hard to carry ice boxes to keep the vaccines cool while walking across rivers, mountains, through the rain, across rocky ledges," explains nurse Miriam Nampil via UNICEF.

"As the journey is often long and difficult, I can only go there once a month to vaccinate children. But now, with these drones, we can hope to reach many more children in the remotest areas of the island."

### EXCITEMENT ON THE GROUND

Eric has been in some of the villages the first day his drone arrives and says it's cause for much celebration. "We're working with the government, and so the villagers know we can be trusted, as the government has helped



**ERIC PECK**  
Co-founder of  
Swoop Aero

them before with things like solar energy. Some villages are very rural, but most have smartphones and access to Facebook or the internet so they're used to seeing things like drones, but it's still a major event when it first turns up. School is let out, the whole village is gathered, with 200 people standing around, and they will be cheering and really excited when the drone arrives."

It's not a bad career change for a man who originally started in the Air Force flying fighter planes. Eric and co-founder Josh Tepper, a mechatronics engineer, aren't stopping at Vanuatu. They're expanding the service into other countries, including Malawi and Mozambique.

"Today's small flight by drone is a big leap for global health," said Henrietta Fore, UNICEF executive director, on the day the first drone landed in Vanuatu. "With the world still struggling to immunise the hardest-to-reach children, drone technologies can be a game changer for bridging that last mile to reach every child." 📍