Serving more than 150 inaccessible communities in the North of Madagascar

Map of the 150 supply points currently served by AerialMetric under the USAID/IMPACT project

Our eVTOL, the Savior 330, approaching a mountainous coastal area (left) and passing islands while crossing a large bay (right)

OVERVIEW	
Flying Labs	Madagascar Flying Labs
Geographic area	North East of Madagascar
	10 districts in 3 regions: SAVA, Sofia, Analanjirofo
Date range	January 2019 - now
Sector program	HealthRobotics
Main SDGs	GOAL 3: Good Health and Well-being

SCOPE	
Project stakeholders	Population Services International (PSI) The United States Agency for International Development (USAID) Ministry of Public Health of Madagascar (MSANP) Civil Aviation Authority of Madagascar (ACM)
Who benefits	1,5 million beneficiaries through the 150 supply points we restock
Challenge	Lack of access to antimalarial products in remote communities
Scope	Bringing antimalarial products to 150 supply points, which act as intermediaries between the Population Services International (PSI) and the Community Health Workers (CHV). The CHV are getting their products from the Community Supply Points (CSP) to directly serve the population.
Outcome	We worked closely with PSI from the start in order to design the right type of drones (eVTOL) for their needs. We took into consideration the distances to be flown, the altitude and weather conditions as well as the volume and weight of the medicines to be delivered. We decided to go for a eVTOL drone because of the lack of space to take off and land in these mountainous areas (North East of Madagascar). For security reasons (presence of armed bandits), we decided to opt for a parachuting system to deliver the medicines without landing at destination. Our drones are part of a PULL supply chain system. The demand comes from the supply points we serve via PSI.
Impact	More than one million beneficiaries can access life-saving antimalarial medication thanks to this initiative. This is a true game-changer for the remote populations and for public health of Madagascar.
Next steps	The next step will be an independent evaluation of the project by a USAID-contracted agency. It has been postponed because of the COVID-19. We are then hoping to scale up to other regions of Madagascar using more drones.

COMMUNITY ENGAGEMENT

Activities to engage with the community	We sensitized the local population using radio spots in local dialects as well as posters explaining the purpose of our platform.
Community groups engaged with	- Government officials (Ministry of Health at the central and district levels) - Medical public sector's representatives - Community representatives - Community in general
Community attendance	We organized a group training on the role and use of the drone - 20 people attended it in total
Community feedback	All very positive and eager to have the drones serve them.

CARGO

Cargo transported	mRDT Sulfadoxyne Pyrémythamine mACT
Cold chain	Not necessary for this project

HARDWARE AND SOFTWARE

Cargo drone	Savior 330
Precision landing	We do not land at destination - we use a parachuting system to deliver the medicines to their destination
Flight plan software	Mission Planner

FLIGHT OPERATIONS

Delivery distance(s)	100 km (200 km flight in total)
Number of flights	125
Number of deliveries	150
Flight altitude	100 m – 1000 m
Total cargo delivered	500 kg
Total distance flown	10,000 km
Take-off/landing sites	2

COST BENEFIT ANALYSIS

Speed savings	Up to 2 hours by drone compared with days or weeks
Cost savings	N/A