

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

SCOPE	
<b>Project stakeholders</b>	<p>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)</p>
<b>Who benefits</b>	<p>1,5 million beneficiaries through the 150 supply points we restock</p>
<b>Challenge</b>	<p>Lack of access to antimalarial products in remote communities</p>
<b>Scope</b>	<p>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.</p>
<b>Outcome</b>	<p>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.</p> <p>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).</p> <p>For security reasons (presence of armed bandits), we decided to opt for a parachuting system to deliver the medicines without landing at destination.</p> <p>Our drones are part of a PULL supply chain system. The demand comes from the supply points we serve via PSI.</p>
<b>Impact</b>	<p>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.</p>
<b>Next steps</b>	<p>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.</p> <p>We are then hoping to scale up to other regions of Madagascar using more drones.</p>

COMMUNITY ENGAGEMENT	
<b>Activities to engage with the community</b>	We sensitized the local population using radio spots in local dialects as well as posters explaining the purpose of our platform.
<b>Community groups engaged with</b>	<ul style="list-style-type: none"> <li>• Government officials (Ministry of Health at the central and district levels)</li> <li>• Medical public sector's representatives</li> <li>• Community representatives</li> <li>• Community in general</li> </ul>
<b>Community attendance</b>	We organized a group training on the role and use of the drone - 20 people attended it in total
<b>Community feedback</b>	All very positive and eager to have the drones serve them.

CARGO	
<b>Cargo transported</b>	mRDT Sulfadoxine Pyrémithamine mACT
<b>Cold chain</b>	Not necessary for this project

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

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

COST BENEFIT ANALYSIS	
<b>Speed savings</b>	Up to 2 hours by drone compared with days or weeks
<b>Cost savings</b>	N/A