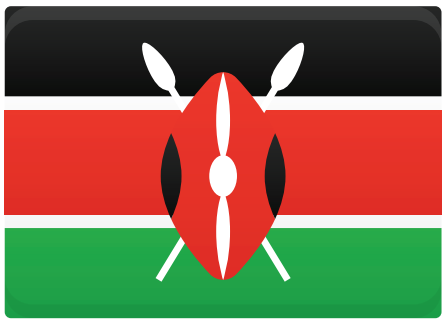
Wakanda Beyond Peer Action Group



Country Summary

Kenya

The Problem

Kenya's regulations were last updated in 2020 and to date Kenya has had a very active drone industry. Based on the 2020 regulations, every drone must be registered with CAA, but there is still a lack of visibility and data on current UAV operations. The Kenya Civil Aviation Authority (CAA) is limited in their ability to track the compliance of operators and as a result felt that they were not maximising the use of airspace for manned and unmanned aircraft.

Solution

To combat this challenge, the Kenya CAA set out to procure and test a tracking system to cover all drone operations in Kenya. This tracking system was anticipated to be tiered and flexible based on risk, type of operation, and location.

Kenya's original hypothesis, developed in June 2023 was:

If we identify requirements for a flexible (tiered), affordable and effective UAV tracking system for UAV operations including BVLOS,

then we will be able to acquire and test an appropriate UAV tracking system,

which means that Kenya will be able to maximise use of airspace (drones and manned aircraft) in a safe and secure way.

Key Activities and Decisions

To begin this work, the Kenya CAA conducted consultations with potential users–security officials, operators, and other members of the CAA–to capture their needs and requirements for the solution. From these consultations, the CAA found that users and operators have high expectations, such as same day registration, free movement of UAVs across the border, and instant operation approval, which were not compatible with currently available solutions. Operators claimed to have a high willingness to share their flight data with the CAA, but there was a perceived lack of trust between operators and security agencies, leading to the impression that flight data and fees are not currently being accurately reported on.

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Once the consultations were complete, the CAA began to research different tracking and UTM systems. The lead of this research was shifted from the CAA (regulatory side) to the Air Navigation Service Provider (ANSP), as the intent was to have independent management for UAVs separate from manned air traffic. They found that there was a lack of available tracking solutions which would meet their requirements of tracking every drone flight. While the CAA is still keen to procure a live tracking option for higher risk areas, such as big cities, they recognized that given current resources a live tracking solution for all flights would be unattainable. Therefore, the CAA and ANSP decided to pivot and focus on procuring a UTM system.

The CAA then set out to find a UTM technical training for their personnel in order to inform the development of the UTM system specifications before running a procurement process. The CAA could not find any independent and neutral providers of such training, as most providers would only train on their specific UTM solution. In addition, the CAA attempted to engage with 3-4 UTM providers to experience their solutions in practice in a demo. So far, only JARUS has been willing to engage and provided a 5-day tailored course plan. The CAA found that UTM providers are reluctant to share proprietary information, such as specifics on tracking components, for the CAA's training purposes. There are limited case studies and implementation examples of existing solutions, which is alarming considering the substantial risks around cost. The procurement process for a UTM was put on hold until this training was complete, as the CAA wanted to use the training as an opportunity to build internal capacity and refine their procurement requirements for the UTM system.

Due to the lack of existing solutions that can comprehensively track all flights and the exorbitant cost of more sophisticated UTM systems, the Kenya CAA is considering taking a hybrid approach, where a more sophisticated UTM will be used in high risk regions (high-density areas) and simpler UTM or alternative solutions will be used in lower-risk areas, such as 30s delayed tracking or segregated airspace.

Outcome and Next Steps

Currently, the UTM procurement process is on hold due to budget constraints however the Kenya CAA hopes to have the system procured by November 2024.