Country Summary
Côte D'Ivoire

The Problem

Côte d'Ivoire last updated their drone regulations in 2022 and has been challenged to manage the ever-increasing volume of unmanned aircraft traffic. Côte d'Ivoire's Civil Aviation Authority set out to develop, through a phased approach, a collaborative management platform (UTM system) for remotely piloted aircraft that could be used by all stakeholders: ANSP, airfield managers, drone operators, and relevant civil and military authorities.

Solution

In June 2023, the CAA hypothesised:

If we
1. Introduce mandatory sign-up and drive usage of the existing platform (for both registrations and incident notifications), AND
2. Develop and test a flight planning module including no-fly zones,

then we will gather improved data on drone activities across Côte d'Ivoire and lay the foundations for a live tracking system in the longer-term,

which means that we will improve the safety and security of drone operations across the country.

Key Activities and Decisions

Once Côte d'Ivoire developed their action plan, they began to assess their existing platform to test capacity as they anticipated there could be up to 5,000 users on the platform—2,000 recreational users, 2,000 corporate users, and 1,000 CAA and other state users. The CAA discussed with their IT team to finalise specifications and evaluate whether the platform could accommodate a much larger number of users than currently existed on the platform. The CAA decided to move their existing platform from PHP/SYMFONY to PYTHON/DJANGO and from MYSQL to POSTGRESQL, but found themselves challenged in designing a new platform for non-aviation users, because non-aviation users are not familiar to all the aviation process so they have to take account this aspect and set up a platform very easy to find and understand by everyone, easy to navigate with a clear structure and format.

Once the platform was updated, the CAA set out to design the online registration module and incident notifications module. In designing the module, the CAA created the ability for two types of registration–personal and company. The CAA defined conditions of use and took into account user training and flight plan management. Moving forward, the CAA needs to implement a user data protection policy as this has been made compulsory in Côte d'Ivoire.

In October 2023, the CAA began to map the entire country to identify no-fly zones–airfields, prohibited, dangerous and restricted areas, military zones, parks and reserves, penitentiary centres and dams. The CAA contacted the relevant authorities to obtain the details of the zones, but have not heard back from some authorities and therefore critical data is missing, leading the CAA to extrapolate data for areas in which details have not been provided.

The CAA then developed a flight plan review process through consultations with key stakeholders-–ANSP, airport managers, and drone operators—and set up the flight review process on a collaborative management platform. The CAA wished they had begun the stakeholder consultations before the start of the project in order to take into account the aspirations of all the stakeholders and each stakeholder's own regulations and processes from the beginning. From these consultations the CAA adjusted certain project parameters and codified the role of each stakeholder. Following the development of the flight plan review process, the CAA began to develop a flight planning module. This module will allow for the collaborative management of flight plans where operators can upload their plans for review by the relevant authority. Planned and validated flights will be displayed for better management and visibility. The development of this module is ongoing, as the CAA's goal of this module is to be able to compare the uploaded and approved flight with flight logs so they can check the compliance of operators after the flight has occurred.

Results and Next Steps

In a year, the Côte d'Ivoire Civil Aviation Authority has managed to update their no-fly zone map and add three modules to their UTM system. The CAA highlights the importance of a collaborative management approach for a UTM, and from the outset of the project all stakeholders must be involved. One of the major obstacles the CAA encountered was the difficulty in communicating with certain authorities about making certain data available. The CAA will continue to move forward with the development of modules for their UTM system, with the ambition to efficiently check compliance of operators' flight logs with approved flight plans and also manage the users theoretical training to ensure the safe usage of drones in Côte d'Ivoire.