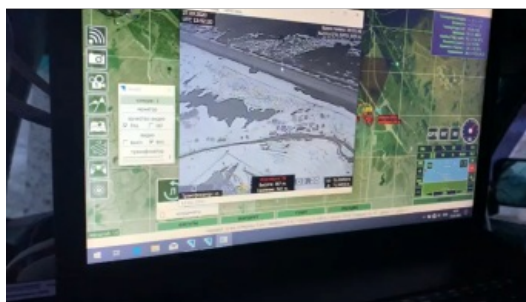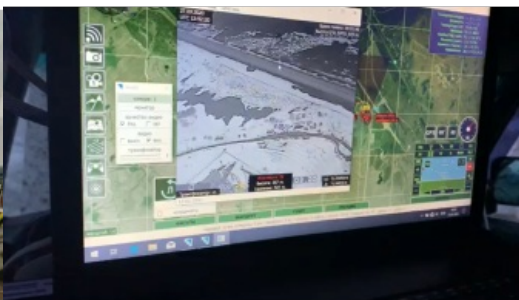# Kazakhstan Uses UAVs to Patrol Capital City during COVID-19 Lockdown

KazUAV, Kazakhstan's leading drone service provider and a member of Japan-based Terra Drone Corporation, has been working at the frontlines to keep communities safe amid the COVID-19 pandemic outbreak. Providing direct support to the operational headquarters set up to prevent the spread of coronavirus in Kazakhstan, KazUAV has been helping the Nur-Sultan Police Department to patrol the borders of the locked-down capital city with drones, ensuring 'contactless' surveillance and fast-paced operations.

The Central Asian nation closed its borders and locked down its main cities, including Nur-Sultan (previously known as Astana), after confirming the first coronavirus case on 16 March. The oil-rich country that borders Russia and China also announced a state of emergency, set to last at least until 15 April, adopting tough measures to combat the pandemic. Some of the guidelines put forth by the Kazakh authorities include country-wide travel restrictions, suspension of public gatherings, and implementation of stringent sanitation and anti-epidemic measures.

KazUAV drone takes off to monitor the borders of the Kazakh capital of Nur-Sultan.

Vision and infrared sensors

All entrances and exits from Nur-Sultan have been completely blocked as part of these measures, mobilizing multiple law enforcement agencies of the Republic of Kazakhstan. Armored vehicles, barriers, and concrete blocks are being used to man the movement from the surrounding villages of Talapker, Karaotkel (Ilyinka), Koyandy, Kosshy, and Zhibek-Zholy, on the Nur-Sultan-Petropavlovsk highway. And an additional post has been set up by the municipal government of the Akmola region in Shubary to ensure there are no cases of non-compliance by the Kazakh population. KazUAV has been directly involved in the collection of information, operational monitoring, and coordination of actions of the Police Department and the Coronavirus Spread Prevention Operational Headquarters for all these areas.

Using drone-mounted cameras with both vision and infrared sensors, the KazUAV team has completed hundreds of flight hours, broadcasting all captured data, as well as the exact coordinates of objects of interest, directly to the operational headquarters command center. This has led to the authorities discovering multiple bypass roads and irregularities in the locked-down area – without which, the quarantine measures could not have proven effective.

A checkpoint on the border of Nur-Sultan.

Drones for lockdown enforcement

When it comes to remote monitoring of vast areas, unmanned aerial vehicles are one of the best tools available to public safety agencies today. As a leading drone service provider in Kazakhstan, KazUAV not only gave Kazakh first responders access to innovative UAV technology, the company also assisted the enforcement agencies with the vast experience of its team of specialists, trained to operate day and night in the toughest of weather conditions.

UAV ground control station at the Coronavirus Spread Prevention Operational Headquarters in Nur-Sultan.

Dmitry Ivanov, development director, KazUAV, says, "As international experience has shown, restrictions introduced to prevent the spread of the coronavirus are the most effective measures to fight it. Of course, it's hard for everyone now; it is a challenging time for each one of us. But the call to 'stay home' is more relevant than ever in the context of drones. We are familiar with carrying out critical tasks like monitoring floods or patrolling important events, but this was an emergency request which needed an immediate response."