

**CASE STUDY**

# DRONE SYSTEM SPECIALIST FLIES HIGH WITH Z14I RUGGED LAPTOP

**CUSTOMER**

Spaitech

**CHALLENGE**

The equipment the manufacturer was using for reconnaissance operations was insufficient to deal with the challenges of working in adverse weather conditions. An essential requirement was finding a rugged device with a high-quality screen that was responsive, touchable and bright with good pixel detailing and all-weather functionality.

**SOLUTION**

The Z14I rugged laptop was recommended, which is now sold as part of the drone system.



**SPAITECH**

Headquartered in Ukraine, Spaitech is a leading manufacturer of drones and unmanned aerial vehicles (UAV). During their frequent reconnaissance missions, they found that their previous laptop devices were inefficient in navigating the drones and delivering data captured due to screen capabilities. The team works in complex and unpredictable weather, including sun, rain and snow, and at high altitude. The main requirement was that the equipment could withstand these challenging conditions but the quality of the screen and efficient sensor operation, vital components for reconnaissance, were key drivers for change.

Spaitech was reviewing and testing a significant number of laptop devices but hadn't found the right model. Some of them were very expensive and cumbersome while others did not have the parameters needed or had a smaller matrix diagonal screen. Another challenge was finding a device that had a fully protected LAN and USB ports, in addition to a robust connection to the docking station.







## SOLUTION

The Z14I rugged laptop provided many of the same characteristics of the previous equipment but it had a much better screen and sensor functionality, which meant the team could work with a new type of payload, which has been implemented into its Windhower model.

DURABOOK's efficient cooling system meant that the equipment worked well and reliably during the hot summer season but it also showed its capabilities in cooler temperatures. It was proven to adapt to a temperature range of between -28°C to +42°C (-18.4°F to +107.6°F), allowing maximum productivity in the field. The kit was also trialled in the mountains at an altitude of over 5,000 meters (16,404 ft), and in challenging weather conditions such as fog, drizzle and snow.

The higher the altitude, the more ultraviolet radiation, which can be

a challenge that not every laptop and tablet can handle. However, even at this height, the DURABOOK matrix facilitated the processing of information from the UAV device's payload. Despite the harshest winter environments, the sensor remained uncompromised and the screen matrix continued to work, proving the Z14I be excellent in performing tasks.

## BENEFITS

While the partnership is still in its early stages, the computing capabilities of DURABOOK's laptops have both met and surpassed Spaitech's expectations, opening up new operational opportunities. With mobility such an essential aspect of fieldwork, the dimensions of the equipment, namely the lightness and compactness of the laptops, enable the equipment to be sufficiently mobile. The laptops' shock resistance and durability under various conditions has allowed the team to work across multiple challenging environments without worrying about the equipment's functionality.

The team can now work efficiently in all temperatures and conditions while the anti-glare touchscreen with high resolution has boosted operational productivity. The ergonomics of protected connectors means the plug works well, as everything is securely closed, while the dual battery installation has increased operational time-frames. The laptops' appealing backlit keyboards and bright screens, and the presence of dual LAN ports, fast hard drive, and

reliable USB connectors also aid efficiency in the field. In addition, positive, useful feedback from DURABOOK service engineers means that the team continues to receive quick responses and implementation of required tasks, while DURABOOK's international certifications enable Spaitech to work with customers with certifications as a prerequisite of the contract. In the future, Spaitech plans to completely switch to DURABOOK products.

Spaitech worked with distributor EKZOT LLC, who has been Twinhead Corporation's partner in the Ukraine since 2019. This successful alliance has made DURABOOK products more recognisable in the Ukraine, particularly amongst the mining industry, heavy and light engineering sector, scientific research enterprises, the police, geological exploration, aircraft construction enterprises and the military industry.



**"The main advantages of DURABOOK are that it withstands low temperatures, while remaining workable. Also, DURABOOK laptops are stable and work fast."**

Anatolii Asulyak,  
Head of Operations  
Department at Spaitech