

MILITARY

# GEW

## GEW Integrates Getac V110 Fully Rugged Laptops into its Electronic Warfare and Signals Intelligence Solutions

### / Challenge /

Signals intelligence (SIGINT) is an essential subset of electronic warfare. Electronic signals can be intercepted and turned into valuable intelligence for the armed forces, such as the location of the enemy. Pretoria-based GEW, a business unit of Hensoldt South Africa, offers integrated electronic warfare solutions and needs a device that can serve as a user interface and equipment server for their portable solutions. It will complement GEW's portable antenna and surveillance system to create a comprehensive SIGINT solution. The device needs to achieve an optimal balance between performance, mobility and rugged design.

### / Solution /

The Getac V110 fully rugged convertible laptop was elected to form part of GEW's SIGINT solution. At only 2.1 kilograms, it helps to keep the total solution at a minimum weight, so that soldiers can remain mobile while carrying out their mission. Its computing power is more than sufficient to operate sophisticated SIGINT software. Its intrinsic ruggedness, which complies with MIL-STD-810G, MIL-STD461G, and IP65 certifications, as well as operating temperatures ranging from -21°C to 60°C, means the V110 is ready to deploy on complex, modern battlefields across the world.

### / Benefits /

The Getac V110 has become GEW's trusted solution for a computer that balances state-of-the-art performance with rugged protection and mobility. The reliability and consistent quality of Getac products are especially important in the defense sector, where design cycles are longer than in the commercial sector.

Getac's flexibility and responsiveness to customer needs is also highly commended.

By incorporating Getac into their system, GEW has been able to provide their SIGINT solution to customers around the world, helping the armed forces fight smarter in the digital age.

### / GEW /

"The first impressions we had of Getac are the wide range of high-quality products they provided. From our experience and interaction with them, it became clear that Getac not only provides products, but rather solutions. Our systems tend to be more specialized, with the Getac products performing a critical component. It is clear that Getac acknowledges this through the relationship we have built up with them over the years. The level of support we receive from Getac is a clear indication that we can use any of their products in our systems with absolute confidence."

Morné van Tonder, Principal Systems Engineer, GEW



Getac V110 Fully Rugged Convertible



## / Challenge /

"Know thy enemy" is the first rule of war. Know where they are, how many they are, and what they are talking about. In the digital age, this can be accomplished through a subset of electronic warfare, known as signals intelligence (SIGINT). Unguarded transmissions from sources such as radio communication, mobile phones, radar or microwave communication can all be intercepted and analyzed to gain valuable intelligence. Gone are the days of opposing sides blundering into one another and sparking an unexpected engagement. The modern soldier needs to know where the enemy is and what they are planning, long before visual contact is established.

SIGINT employs many different technologies, but in layman's terms, the solution may be broken down into three components. A collector, which identifies the signals to look for and pulls them out of the air. A receiver, which 'translates' the electronic signals into actionable information, for example, using radio direction finding (RDF) tools to triangulate the source of the intercepted transmission. Finally, a man-to-machine interface is used to store and process the data. For example, it can render a digital map that provides the commanding officer with three-dimensional situational awareness. The application of SIGINT is also helpful in the civilian sector. Radio frequency spectrum is as much a natural resource as earth and water. Through a discipline known as spectrum management, regulatory agencies can monitor the use of radio frequencies, preventing unlicensed broadcasts, misuse of the spectrum and ensuring efficient utilization.

GEW, a system engineering pioneer with over fifty years of experience in the electronic warfare sector, and part of the sensor solutions market leader Hensoldt, designs, develops and delivers comprehensive SIGINT solutions that can be used in land, sea and air applications. GEW's portable SIGINT solution features a mobile antenna as the collector and an ultra-compact, self-contained surveillance system with wideband RDF as the receiver. The third component—the user interface and equipment server—is where Getac's solution comes in. Such an optimal balance between performance, mobility, and ruggedness could not be found on any other single device.

## / Solution /

After looking at competing solutions on the market and customer feedback, GEW selected Getac V110, the fully rugged convertible laptop, as the final piece of the puzzle. The V110 not only

stores the data; it can also act as the interface through which soldiers work with the valuable intelligence, such as making a map of enemy locations. And it comes in a convenient, lightweight package that is rugged and mobile.

The V110 runs on an Intel® Core™ i7 processor and Windows 10 operating system, which means it has more than sufficient processing power for the advanced SIGINT software developed by GEW. It comes with up to 1 TB of SSD storage. Its many I/O ports, such as USB 3.1 and LAN, offers simple and easy connection between the V110 and the receiver. The dual hot-swappable batteries, coupled with an optional vehicle adapter, ensure that the V110 has enough power to work through eight, to twelve-hour deployments. Weighing in at only 2.1 kilograms, the V110 does not overburden soldiers in the field. The 11.6" LumiBond® 2.0 touchscreen is large and easily accessible, without making the computer too cumbersome and the 800-nits display is fully sunlight-readable. What's more, the laptop can easily be converted to tablet mode, offering greater mobility without sacrificing usability.

The V110's mobility and ruggedness cannot be overstated. By design, the SIGINT solution is meant to go wherever duty calls. It can be mounted inside a military airplane or truck, or it may be carried by infantry to locations inaccessible to vehicles. Since GEW sells around the globe, the V110 must literally be ready to survive the battlefields of the world, whether it is the wettest rainforests or the driest deserts. Fortunately, the V110's intrinsically rugged design has undergone rigorous testing to ensure it is certified to MIL-STD-810G, MIL-STD-461G, and IP65 standards. Representatives of GEW say it was remarkable to witness customers using the V110 in temperatures pushing 50°C with the display at maximum intensity, without experiencing any drop in performance. In fact, the V110's operating temperature goes from -21°C to 60°C, while its storage temperature goes from -51°C to 71°C. It can also withstand humidity levels of up to 95% RH, non-condensing.

## / Benefits /

GEW is very impressed with the V110. Not only does it integrate seamlessly with their hardware and software, but client feedback also shows Getac is preferred over other alternatives. The rugged, lightweight, high-performance laptop extends the coverage of the SIGINT solution, significantly improving situational awareness on the battlefield.

In addition, GEW finds the overall stability and reliability of Getac solutions to be an invaluable asset.

Defense products have lengthy design cycles. Consumer electronics may alter their form factors once a year, but military equipment requires three years to develop, at a minimum. The fact that Getac can guarantee supply of the same computer with the same form factor and functions, while tirelessly upgrading it to run on the latest technology, speaks volumes about Getac's dedication to its customers. GEW has used at least three generations of the V110. In their own words, "everything has been solid"

Getac's commitment to communication with partners and customers has also garnered a lot of praise. Project leaders have commended Getac's flexibility and fast response time, whether it comes to fulfilling orders or troubleshooting. In the unlikely event of equipment failure, Getac has service centers all over the world, and offers three-year Bumper-to-Bumper warranty for fully rugged computers as standard. Considering the kinds of extreme environments the armed forces operate in, this extra layer of protection is critically important.

"Getac provides us with not just the rugged laptop, but also the necessary accessories and services. It is the definition of a top-quality total solution," says Morné van Tonder, Principal Systems Engineer at GEW. "It is an ongoing process to find the best balance between performance, mobility and ruggedness. The V110 has become our go-to solution." GEW's SIGINT solution is sold all over the world, and the V110 plays a vital role in their innovative system. In the digital age, the military has learned to fight smarter, not harder. Getac's rugged solutions have got their back, wherever they go in the line of duty.

## / About GEW (a business unit of Hensoldt South Africa) /

GEW is a system engineering pioneer specializing in the design and production of sophisticated communication monitoring, electronic attack and security products and systems. For more than half a century, GEW has been providing clients across the world with the capability to detect and protect in contemporary defense and civil operating environments. Whether on land, at sea, or in the air, GEW's field-proven technologies detect, collect, and evaluate data with agility and precision. GEW is part of Hensoldt—a multinational corporation headquartered in Germany which is a market leader in civilian and military sensor solutions.

