Kfir Benjamin, CEO at GetSAT

GetSAT is an innovator in small, lightweight satellite communication terminals for airborne, ground, and maritime applications. Located in Israel, the company is an antenna technology expert pioneering micronized, integrated terminals specifically targeting SoTM satellite communications-on-the-move (SoTM) applications. The company works with airborne vehicles such as helicopters and unmanned vehicles like UAVs, with ground vehicles like jeeps and military strike vehicles and maritime vessels both manned and unmanned.

GMC Q&A

Serving the critical government and military markets

GetSAT provides small, lightweight satellite communications terminals for airborne, ground and maritime applications across the globe. Serving the commercial, government and military markets, GetSAT has a wide range of terminals to suit any application. Kfir Benjamin, CEO at GetSAT, outlines how GetSAT effectively serves the critical government and military markets.

GMC: Can you provide an overview of GetSAT's capabilities and expertise?

Kfir Benjamin: GetSAT is an innovator in small, lightweight satellite communication terminals for airborne, ground, and maritime applications. Located in Israel, the company is an antenna technology expert pioneering micronized, integrated terminals specifically targeting SoTM satellite communications-on-the-move (SoTM) applications. We work with airborne vehicles such as helicopters and unmanned vehicles like UAVs, with ground vehicles like jeeps and military strike vehicles and maritime vessels both manned and unmanned.

GetSAT's family of SoTM terminals is based on patented fully-interlaced InterFLAT panel technology for transmitting and receiving signals on the same panel. Our compact and lightweight designs offer reduced size, weight and power consumption (SWaP) to provide advantages essential for critical mission success. In contrast, other technologies utilize separate transmission and reception panels. Via proprietary materials, science and design, and frankly, a great deal of experimenting and micronizing, our engineering team found a way not only to interlace panels, but also to miniaturize antenna hardware and ensure that all connections and pathways within the architecture worked better than others. With all of this, we are able to provide greater satellite communication throughput, in less physical space, less weight and with lower power consumption, thereby putting the SWaP conundrum to bed.

Working closely with integrators, communication providers and other clients, GetSAT provides all-encompassing solutions. This means that our team takes part in the planning, designing, configuring, customizing, integrating, installing and deploying of our platforms within larger communication systems.

GMC: Which markets are key to GetSAT's operations, and how have they evolved over the years?

Kfir Benjamin: GetSAT prides itself in supporting the difficult demands of defense agencies around the world. We see this support as a key driver for ensuring we design, build and field the smallest, most efficient and rugged SoTM terminals on the market. By solving the most difficult of SoTM problems for the most difficult users, we have also solved many other issues that plague commercial entities and non-government organizations. Additionally, with the evolution of high throughput satellites (HTS) everyone in the SoTM market requires smaller, lighter and faster capabilities and the team at GetSAT works diligently to ensure our solutions support those demands.

Photo courtesy of GetSAT

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GMC: What are the biggest challenges emerging right now in delivering secure communications on the move (COTM) for military applications?

Kfir Benjamin: COTM applications are a steadily growing market, not only for the military but also for defense, security and border applications. Challenges include ruggedness, down and uplink speeds, ease of use, size, weight, power consumption and flexibility.

GMC: In March, the US Government selected GetSAT's MicroSAT and MilliSAT LM (land and maritime) versions for providing secure communications on the move (COTM) applications. What can you tell us about the deal, and why are GetSAT's products better suited for this application than rival offerings?

Kfir Benjamin: Yes, in March 2018, GetSAT announced that the US Government selected GetSAT's MicroSAT and MilliSAT LM (Land Maritime) versions for providing maritime and ground-based secure communications-on-the-move (COTM) applications. Delivery of the first of these units took place in July 2018. We are extremely proud of our selection to support the US Department of Defense. Our selection is a testament to the ruggedness and quality of our platforms.

One of the issues of being a supplier to certain agencies in the military and security arenas is that we cannot always publicize our business deals. Though we can talk in broad terms about the March 2018 deal with the US Government, I can tell you that we do have other deals with revenues from agencies around the world. However, we are currently unable to provide more details.

For the aforementioned deal, both MicroSAT and MilliSAT LM are built strong for continuous usage in harsh environments whether at sea or on the ground. These terminals met a lengthy list of mission critical operational parameters that the DoD required for on-the-move communications in a compact form factor.

Photo courtesy of GetSAT

Our engineers construct our micronized terminals so they are easy to deploy and integrate. Our unique all-in-one design including BUC and modem is optimized for harsh environmental requirements and is available in Ka or Ku-band variants. The platforms' ultra-low power consumption makes them the perfect fit for the DoD's needs.

GMC: In August, Avanti Communications demonstrated the potential of GetSAT's communications on the move (COTM) capabilities, utilizing GetSAT's MicroSat terminal on board a moving vehicle. Can you outline the demonstration, and the implication for satellite COTM?

Kfir Benjamin: Satellite-on-the-Move (SOTM) applications are a market ripe for products such as those we supply. The potential is enormous. Linking a moving platform – whether on the ground, in the air or at sea – requires efforts and small, lightweight and flexible equipment.

The terminals need to deal with changing conditions including extreme motion and altitude as well as other environmental conditions such as temperature, humidity and pressure. Our collaboration enables military and government users to maximize the benefits of HTS broadband for the delivery of full motion video and other C4ISR applications.

During our Avanti demonstration, we used a GetSAT MicroSAT terminal installed on a travelling vehicle that connected to a GetSAT Microhub modem installed in Avanti's Gateway Earth Station in Cyprus, and thus to Avanti's HYLAS 2 Ka-band satellite. In these stringent tests, we obtained data traffic rates up to 8.5Mbps from the moving vehicle, easily showing our and Avanti's network abilities to stream live HD-quality video or surveillance imagery and IP data traffic.

The strategic partnership between Avanti and GetSAT offers significant high data capability combined with very small, flexible, agile and portable satellite communications to support military and government users.

GMC: What are your expectations for GetSAT for 2019?

Kfir Benjamin: We expect 2019 to be a banner year for GetSAT. We will continue to support users with our Land Maritime (LM) and Lightweight (LW) variants of terminals while also introducing two new families of terminals; the Blade family of low profile interlaced Electronically Steerable Array (ESA) antennas and the Ultra, an all planes ESA L-band antenna.

The innovative solution for L-band satcom will be the first to be announced. The versatile super low-profile Ultra Blade L-band antenna will be compatible with any land mobile BGAN terminal and L-band satellite. Ultra Blade will be the market's first complete all-planes ESA antenna with no moving parts whose streamlined physical characteristics and technical achievements change the future of mobile broadband satcom.

Expanding GetSAT's satcom solutions for on-the-move L-band applications, Ultra Blade will combine unbeatable size, weight and power consumption (SWaP) all in a package of less than 5lbs (2.4kg). This will truly be an innovative product that will change the physical make-up of BGAN terminals for the better. We are excited by the opportunities the Ultra Blade will offer.

Each of our future portfolio products will examine how to most effectively reduce SWaP differentials for the satcom business. I cannot overstress the importance of miniaturization and micronizing technologies. Our teams are at the forefront of this drive.

In the coming 18 months, we will introduce a full pipeline of satcom products as well as continue our sales. We really are no longer in start-up phase, rather we are fully moving forward with all aspects that are entailed in a growing and emerging company. At present, at the end of 2018, we already have a number of fascinating deals with integrators, governments, defence and security agencies, that we are unable to expose. However, despite this, we can state that GetSAT's name is growing in stature amongst industry experts. **GMC**

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