For those whose work takes them into situations where audio or visual surveillance is limited, or non-existent, the need for tools and equipment to provide visual and auditory access is a necessity. These situations, referred to as denied communications, could related to the inaccessibility of territory controlled by a hostile group or government. But denied communications may also exist in much smaller areas—an underground bunker or a soundproof room, for example. While we often think of denied access in the context of access being denied by hostile forces, access could also be denied as the result of remoteness, rugged terrain, inclement weather or even the disruption of satellite and other advanced technologies we have come to rely on.

Whatever the circumstances contributing to a denied area, it is essential that the military, intelligence or police personnel tasked with operating in such settings have the ability to communicate as effectively as possible. This could include observing and recording sounds and images; communication with other personnel located within or outside of the denied area; or assured position, navigation and timing (APNT). OTTO provides several devices with a proven track record that are specifically designed for enhancing operational effectiveness in denied situations.
Hearing and Listening Capabilities

Sometimes personnel find the need to hear what's going on at a distance, whether they are on the outside listening in or on the inside but just not close enough. There are many products on the market for magnifying sound; however, such a generalized approach is not sufficient for many operations. OTTO’s NoizeBarrier Micro High-Definition Rechargeable Earplugs deliver unsurpassed situational awareness and crystal-clear natural hearing, while providing industry-leading protection from loud noises.

For police serving dangerous warrants or military personnel clearing buildings in a combat zone, the ability to more easily hear a potential threat could literally mean the difference between life and death. At the same time, gunshots fired in enclosed areas or the sound from a flash grenade could do significant damage to one's hearing in any situation, let alone with artificially amplified hearing.

The NoizeBarrier Micro amplifies sound, while also providing hearing protection against loud noises, such as gunshots or explosions. This selective amplification provides the ability to communicate effectively and hear what's going on in denied areas with clarity, while avoiding the risk of hearing damage.

The electronic earplugs allow natural hearing when no background noise is present and gradually protects users from loud continuous noise from vehicles, machinery or gunfire from nearby shooters. These earplugs can provide 23-28 dB NRR to help combat the impact of sustained loud noise. With a simple press on the touch pad, the user activates enhanced hearing mode, which provides 5X amplification of soft sounds, improving distance detection for enhanced awareness.

In either standard or enhanced hearing mode the earplugs provide maximum protection (up to 40 dB) from loud impulse noises and provide active situational awareness when sound levels are safe.

Encumbrances and Movement

There are many options for extremely powerful surveillance and communications tools available for use when sitting behind a computer screen in friendly territory. But personnel operating in denied areas have to balance the effectiveness of their communication equipment with the need for easy movement and concealment.

The OTTO Connect Wireless Intercom is a hands-free, full-duplex, wireless communications tool for work teams. OTTO Connect is designed to provide exceptional functionality in a hands-free platform that makes the headset virtually a part of the operator, providing up to 18 hours of talk time in a variety of demanding applications and environmental conditions. Connect is an effective tool not only for military and police personnel who need to have their hands free to hold firearms or shields, but also for personnel deployed in situations that require the use of cumbersome personal protective equipment (PPE)—for instance, medical personnel facing potential exposure to infectious diseases.

OTTO Connect is the preferred option for the clearest communication when operating in denied areas or other difficult and noisy environments. These intercoms operate in the 900 MHz frequency range, meaning they avoid the traffic in some of the more heavily trafficked frequency ranges used by Wi-Fi, Bluetooth, cellular networks and other wireless intercoms. OTTO Connect also provides
signal processing and ambient noise reduction in high-noise environments, including conflict areas, construction sites, roadways and high-density population areas.

In conjunction with existing radios OTTO Connect provides much broader capability. The optional OTTO fusion device allows users to merge the open communication of OTTO Connect and the closed channels of the radio. Even if radios are limited to only select users the fusion device allows the controller to broadcast the radio communications to each team member. This provides an extra layer of redundancy or even a primary means of communication that is far more effective and reliable than team members shouting back and forth over the sounds of gunfire and explosions.

Maritime Communications
The OTTO 20 Meter Diver headset is the right choice for water rescues, underwater demolition teams, maritime security operations, underwater repairs and more. The specially designed larger, over-the-ear rubber speaker and water-resistant microphone have been tested under extreme conditions to ensure the headset will continue to provide clear communications even after multiple dives to as deep as 20 meters of saltwater.

Additionally, the OTTO 20 Meter Diver headset address a common challenge for underwater personnel by avoiding the loss of communication as divers resurface. Having to wait for communication to be re-established can add crucial time to the exaction of a mission and disrupt coordinated timings, not to mention leaving the diver separated from the rest of the team pending re-establishment of communication.

Limited Traditional Communication
Even with the best equipment and technology, audio communication is often simply not an option. Whether there is a need to eliminate noise for stealth purposes, the range is too great to support communication over available frequencies, or it’s simply too time-consuming to continually relay precise locational information via traditional telecommunications options, OTTO in a joint partnership with LynQ Technologies, is currently in the process of designing a new location tracking device that would be a great tool for any team.

The revolutionary technology makes it simple to find team members in crowds, remote areas, combat/tactical situations, rugged terrain or anywhere under the open sky. The unit will be designed specifically for military operations and the real-time display shows distance and direction information for up to 12 team members within a 3-mile radius to give warfighters improved situational awareness capabilities on the battlefield.

There are plans to integrate features to support coordination, such as setting a home base or rally point location and creating a boundary radius with an alert system that will vibrate the instant someone has left the user-defined geo-fence radius. Additionally, this joint technology will create a completely secure, closed private network between all paired devices. It’s also suitable for any environment with its durable and water-proof design.

Products You Can Trust
Conducting military, police and intelligence missions are often adversarial by their very nature, and it is to be expected that professionals involved in these activities will routinely find themselves in denied access situations. Whether communications are restricted by terrain, weather, technological disruption or any other factor, military, police and intelligence professionals need to find a way to communicate with one another as well as their colleagues outside of the denied area. Nevertheless, it’s essential that they are able to operate effectively in such environments for the sake of the mission at hand, and communication is a crucial element for the success of any mission.

OTTO continues to design, develop, manufacture and field test equipment to aid those in denied settings while ensuring safety. OTTO Engineering has a proven track record of success in ensuring such communications, regardless of the area and situation, and its products are trusted by military, police and intelligence agencies around the globe to do just that.

Ready to learn more? Please visit Ottofedmil.com for more details on operating in denied environments and OTTO products.