

Gilat Blog

Gilat's Emergency Response Solution: A Lifeline in the Aftermath of Hurricane Otis

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In October 2023, Hurricane Otis unleashed its fury along the Mexican coastline, leaving destruction in its wake. Acapulco was plunged into chaos and darkness. At least 50 people were killed, hundreds were injured, and Acapulco was left in ruins due to the record-breaking Category 5 storm.

The storm severed communications to Acapulco, leaving authorities and residents without reliable connectivity. The telco signal was intermittent, briefly returning and then cutting out again, hindering communication efforts. Infrastructure damage and power cuts were responsible for the loss of communication, affecting over 300,000 people.

Beyond the physical devastation, the storm exposed a vulnerability that is often taken for granted—the fragility of terrestrial telecommunications infrastructure. The extensive network of communication cables and towers, which facilitates everyday connectivity, becomes particularly susceptible to damage during extreme weather events. As the hurricane battered the region, communication networks were all knocked out, posing a severe challenge to first responders and hindering their ability to provide timely assistance.

Satellite communication (SATCOM) plays a vital role in government and emergency operations, offering reliable and resilient communication capabilities for emergency response, business continuity, and backup services. Many Mobile Network Operators (MNOs) who use Gilat's cellular backhaul (CBH) over satellite to extend networks to remote locations also use Gilat's CBH for emergencies when terrestrial networks fail.

Gilat has been providing CBH in Mexico since 2017. There is a SkyEdge II-c Hub in Mexico City connected to remote Capricorn VSATs. Working with a nationwide MNO, Gilat is currently enhancing LTE coverage of this MNO.

On October 25, 2023, Gilat's CBH solution with transportable VSATs was the only viable solution to quickly return connectivity to hundreds of thousands of people in Acapulco.

Gilat to the Rescue

Gilat is a leading global provider of satellite communication solutions, including those specifically designed for emergencies.

First responders count on Satcom-on-the-Move (SOTM) solutions integrated by Gilat to manage emergency response and public safety efforts in the most challenging environments. Our integrated solutions are designed for fast deployment and do not require technical training. Compact, low-profile antennas installed on emergency vehicles as well as transportable VSATs can provide first responders with broadband connectivity once they are deployed in the designated emergency site. Response teams gain access to always-on, real-time video streaming, voice, and high-speed data communications that help them do the important work of saving lives.

We have extensive experience providing urgent satellite communications during emergencies and national disasters around the world, from the United States to the UK and the Far East.

Amidst the chaos and challenges posed by Hurricane Otis, Gilat's SATCOM CBH integrated solution for emergency response emerged as a lifeline, addressing the following needs:

Redundancy and Resilience: CBH over satellite provides an alternative and redundant means of connectivity when wired networks, such as fiber-optic cables, are damaged or disrupted during severe weather events. This redundancy is essential for maintaining communication links when primary communication systems are compromised.

Isolation and Inaccessibility: Weather emergencies, including hurricanes, floods, or earthquakes, can lead to the isolation of certain areas or make them physically inaccessible. In such cases, CBH over satellite ensures that these remote or affected regions can remain connected to the broader communication network.

Rapid Deployment: Gilat's solutions can be quickly deployed to provide connectivity in disaster-stricken areas. Our solutions can be set up quickly, helping to restore communication services promptly.

Continuous Coverage: CBH over satellite provides continuous coverage over a wide geographic area, irrespective of the local conditions on the ground. This ensures that even in a weather emergency, communication services can be maintained, allowing emergency responders, authorities, and affected individuals to stay connected.

Flexibility in Communication Infrastructure: Satellite backhauling offers flexibility in adapting to different communication infrastructures. It operates independently of ground-based infrastructure such as fiber-optic cables or microwave links. It can also support various cellular technologies, including 2G, 3G, 4G, as well as 5G. This adaptability enables the integration of satellite connectivity into existing cellular networks, ensuring compatibility with different generations of technology.

Remote Monitoring and Coordination: CBH over satellite connectivity supports remote monitoring and coordination efforts by providing real-time data transmission. This is vital for assessing the situation, coordinating relief efforts, and ensuring the safety and well-being of those affected by the disaster.

Conclusion

Hurricane Otis left an indelible mark on Mexico, underscoring the vulnerability of terrestrial communication infrastructure in the face of natural disasters. The aftermath of the storm showcased the importance of resilient and adaptable communication solutions, and Gilat's CBH over satellite solution emerged as a beacon of hope during a challenging time.

As we reflect on the events surrounding Hurricane Otis, it becomes evident that investing in satellite communication infrastructure is not just a technological choice but a critical necessity, particularly in regions prone to natural disasters. The ability of Gilat's CBH solutions to provide rapid, scalable, and reliable connectivity highlights the crucial role that SATCOM plays in disaster response and recovery efforts. In the face of adversity, Gilat's commitment to providing connectivity to everyone, anywhere and at any time, demonstrates the transformative power of satellite communication in mitigating the impact of natural disasters and helping communities rebuild and recover.

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