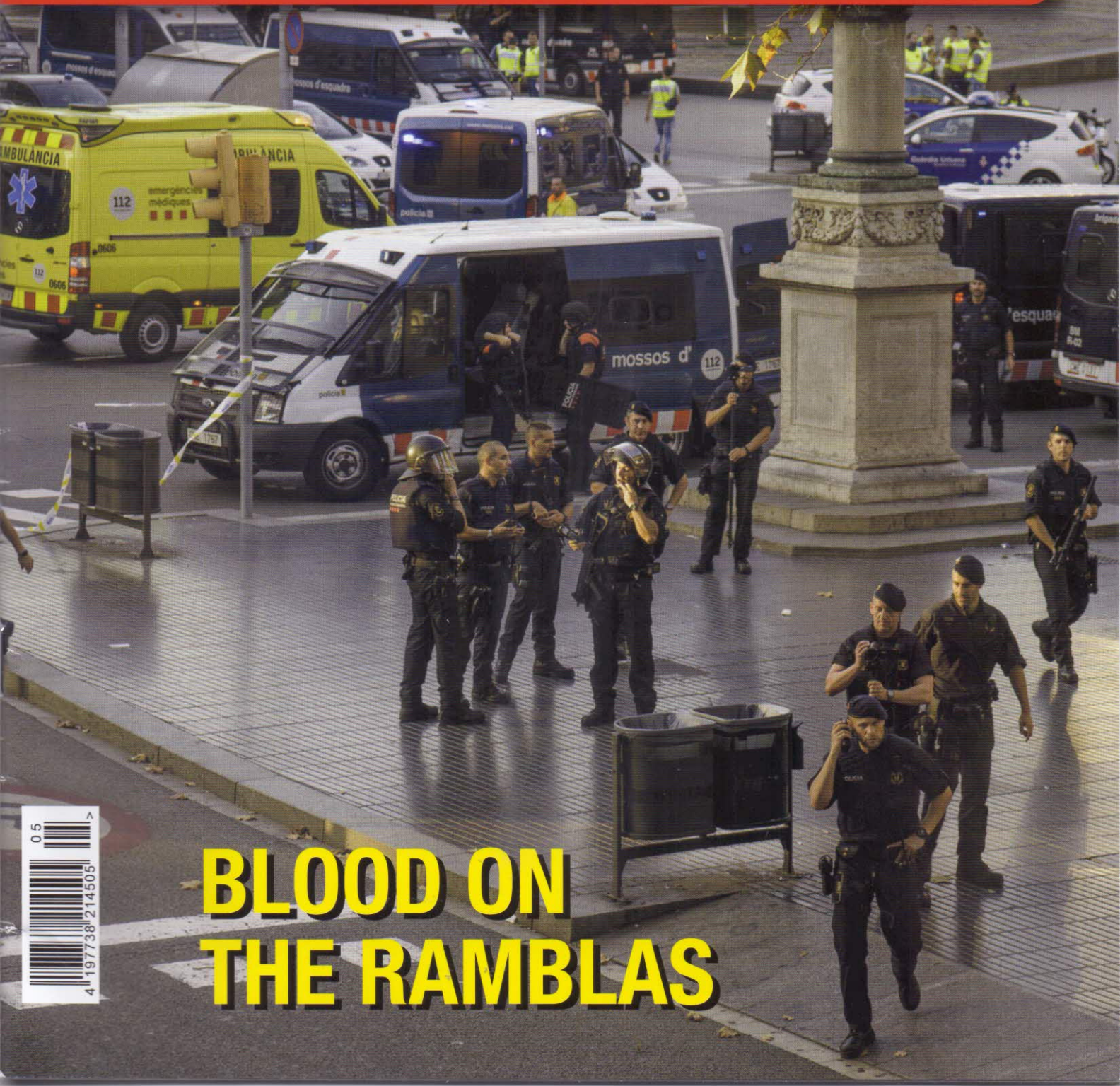


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**BLOOD ON
THE RAMBLAS**



Thomas Withington

Israeli Technology to the Rescue



◁ *Camero-Tech's Xaver product line of so-called 'see through wall' technology has been instrumental in assisting earthquake rescue efforts in Mexico.*

Israel has provided some key capabilities, and much needed assistance, to help the rescue effort in Mexico City, following its 19 September earthquake

According to open sources, the earthquake measured 7.1 on the Richter scale with shaking experienced for 20 seconds. The epicentre of the earthquake was located 55 kilometres (34 miles) south of the city of Puebla in southern Mexico. At the time of writing on 25 September, the quake had claimed the lives of 333 people, and injured 5400.

Unsurprisingly, the earthquake, and the loss of life, limb and property it caused prompted the activation of a major relief and rescue effort. Alongside domestic agencies assistance was provided by a number of international actors, including the Japan International Cooperation Agency which, media reports noted, despatched 72 Search-And-Rescue (SAR) experts to the scene, including individuals from the Tokyo fire and police departments, and individuals from the Japan Disaster Relief Team. Reports continued that Turkey had despatched humanitarian aid, alongside search and rescue equipment, with efforts being led by the country's TIKA agency in coordination with the Mexican Red Cross. Notably, Israel also provided a major contribution, with 50 personnel from the country's Defence Force including SAR experts and engineers.

Media reports added that the Israeli contingent had dispensation to travel during the Rosh Hashanah religious holiday which marks the Jewish New Year. The Israeli response was not limited to the deployment of IDF (Israeli Defence Force) personnel, with the IsraAID humanitarian organisation despatching water, sanitation hygiene and psychosocial experts, reports continued. Meanwhile, the Mexican division of Israel's ZAKA International Rescue Unit also provided search and rescue assistance.

Integral to the assistance offered by the Israelis was the technology from that country deployed to assist the rescue efforts. Central to this was Camero-Tech's Xaver-400 and Xaver-800 sense-through-wall apparatus. At the heart of the Xaver-400 is an Ultra Wide-band (UWB) high frequency sensor which allows the hand-held system to detect people "behind most common wall materials", the company notes on its website, with the ability to "detect both static and moving objects" simultaneously. Usefully, the Xaver-400 can be operated in a stand-off mode positioned some distance from a wall, and has a wireless transmitter to enable its imagery of the space under examination, and the occupants within it, to be streamed remotely. Put simply, UWB technology employs very low power level radio frequency transmissions which are performed across a large spread of the radio spectrum, typically circa 500 megahertz.

The Xaver-800, meanwhile, is a physically larger system which the firm states "is unique in providing, for the first time a true (three-dimensional) image of objects behind walls." This technology also enables people to be tracked behind walls. In the law en-

forcement and counter-terrorist domains this is particularly useful as it enables the user to identify potential aggressors and hostages/victims. For example, several people who are sitting on the ground for long periods of time in a room where one or two people are constantly standing could indicate that hostages are being guarded. Like the Xaver-400, the Xaver-800 can be used in a stand-off capacity, with the company noting that it can be positioned at a distance of up to 75 feet (22.8 metres) from the wall. For both systems, crucially, despite transmitting RF energy, the company says that they are safe to use, and emit less energy than a standard cell phone.

It is easy to see why such technology has an important role to play in earthquake rescue. Falling buildings, collapsed basements and debris can conspire to trap people below tonnes of rubble. Being able to detect people who are trapped not only eases the rescue effort, but using systems such as the Xaver-400 and Xaver-800 enables rescuers to determine where in the rubble people are located, and their position helping rescuers to ascertain the safest and most efficient way of performing their extraction.

In the immediate aftermath of the Mexico earthquake, a significant rescue effort got underway for children and teachers trapped in an elementary school which had collapsed; an operation which took over 30 hours. Curiously, a twelve year old girl named 'Frida Sofia' by the media thought to be trapped in the school was presented as a symbol of hope amid the wreckage and despair gripping Mexico City.

Initially rescuers said that they had made contact with a girl who they had determined was alive after seeing a hand poking out of the rubble. Yet the Mexican authorities determined on 21 September that all of the children and staff of the school had been accounted for as either dead, alive or injured. Moreover, no parents or relatives had come forward to say that their child was still missing. Stories such as this underscore how important the timely detection of personnel is. Fortunately, technology such as the Xaver-400 and Xaver-800 can help achieve this goal.

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Thomas Withington specialises in defence communications, radar and electronic warfare and is the Editor-in-Chief of S&SI.