MOTOTRBO™ CAPACITY PLUS DELIVERS MISSION-CRITICAL COMMUNICATIONS

DURING EMERGENCY EVACUATION OF LEADING MOUNTAIN TRAIL RUNNING EVENT

VAL D'ARAN (UTMB)

La Val d'Aran is a prestigious international event in the Ultra Trail Mont Blanc (UTMB) World Series and the most popular mountain trail running race in Spain. It takes place in the Val d'Aran, a large valley in the Spanish Pyrenees. In 2023 the race celebrated its third anniversary, welcoming 5,400 runners from 70 countries (51% Spanish, 49% international) between 6th and 9th July. Participants can choose between five distances and gradients in five simultaneous races. The main race, the VDA, covers a spectacular 161km route through the national park, a route that includes peaks reaching over 2,000m with 10,200m of climbing. The CDH race is 105km long, with 6,100m elevation gain; the PDA is 55km with 3,300m elevation gain; the 30km EXP has 210m elevation gain; and the SKY is 15km with 800m elevation gain. There is also a children's race. Due to the nature of the courses, event operations need to be well organised; the operations team is based at the CECOR (Race Coordination Centre) and is responsible for tracking all runners and any officials or volunteers out on the course. The 500-strong team consists of UTMB personnel, Expocom technicians, volunteers, medics and logistics teams, dedicated to the management of the race and communications. Members of the local and national fire brigades and the Mossos d'Esquadra (the autonomous police force of Catalonia) are also in attendance.

CHALLENGE

The five races take place simultaneously in and around this magnificent, mountainous valley, which boasts narrow gorges, exposed ridges, technical climbing areas and peaks reaching over 2,000 metres. The longest races last well over 24 hours and the more challenging routes traverse high, remote mountains with rugged terrain, very limited access and little or no mobile network coverage. Indeed, despite the magical beauty of the Pyrenees, every summer there are numerous emergency rescues and even disappearances and fatalities amongst sportspeople and outdoor enthusiasts enjoying the mountains. Therefore, the race officials needed to install the most reliable and robust form of radio communications, for unbroken coverage, to ensure the smooth coordination, safety and effective management of the event.

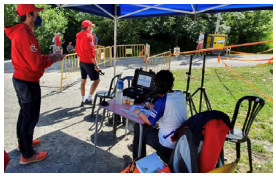
CUSTOMER PROFILE

Organisation:
Val d'Aran UTMB®
- UTMB World Series

Partner:
Expocom S.A.

Industry:
- Sporting Events
- Mountain Rescue

Motorola Solutions Products:
MOTOTRBO Capacity Plus Multi-Site system comprising:
- 6 x MOTOTRBO SLR 5500 repeaters
- >70 x MOTOTRBO DP2400e and R7 portable radios
- 30 x DM4601e and DM4401e mobile radios
- Accessories including IMPRES™ chargers, headsets and desktop microphones



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expocom telecommunication

MAJOR VAL D'ARAN PYRENEES BY UTMB

"We need robust radio communications for our race, especially as runners are in areas where there is no other form of communication. We have been working with Expocom since we launched this race in 2020, and each year the radio system has worked well. However, this year, the radios completely came into their own as the exceptionally poor weather conditions led to the suspension of the two long distance races, for safety reasons; and this at a point when we had more than 2,500 runners out on the course. The radios proved critical to managing this evacuation."

Xavier Pocino, Race Director and UTMB Representative in Spain

The specific challenge in the 2023 event turned out to be the weather. Everything started uneventfully. The weather forecast was slightly changeable, as is often the case in the mountains, but no thunderstorms were expected. So, the races got underway as scheduled and, on 7th July, there were more than 3,000 athletes out on the courses when the first drops of rain began to fall. This was a presage to the weather conditions that the media dubbed 'the perfect storm', which brought freezing temperatures, rain, hail, thunder and lightning to the area. Due to the potential danger to life, the tough decision was made to call off and evacuate all the races, apart from the 20km and 50km races, where competitors were already starting to cross the finish line.

SOLUTION

As in previous years, Motorola Solutions partner Expocom was charged with deploying a temporary radio network to ensure full coverage of the race areas. With over 43 years in the industry and a wealth of experience in installing systems in mountainous areas (including at events, competitions and ski resorts), Expocom used this know-how to select the right hardware and software to meet Val d'Aran's requirements. The Expocom engineers deployed a MOTOTRBO UHF Capacity Plus Multi-Site system comprising six MOTOTRBO SLR 5500 repeaters. The team also stayed on-site to provide direct support during the event. Expocom chose UHF specifically, as the frequencies were better to reach the remote valley floors. Two repeaters were installed in each of the three different sites: in the tiny mountainous villages of Vilamós and Bausen and on the high mountain peak, Cap de Baqueira. Linked with a series of strategically positioned antennas, these repeaters provided total coverage over more than 200km of trails across the steep and rugged terrain. The system was powered by mains electricity, with UPS batteries and generators as backup in case of a power outage. Race officials, logistics teams, doctors and volunteers, mostly positioned at the main CECOR control centre in Viella and at refreshment and control points around the course, were equipped with a mixture of MOTOTRBO R7 and MOTOTRBO DP2400e radios. All the radios came with spare batteries and some with headsets, for hands-free operation. Expocom also deployed DM4601e and DM4401e radios in protective cases with desktop microphones and embedded power supplies, and in-vehicle magnetic antennas and chargers. These were installed in vehicles around the course, at refreshment posts and in the CECOR control centre, plus the teams had some spares. The radios were used for voice communications over two talk groups (logistics and emergencies), with at least 1,000 calls being made during the event.

Until the decision was taken to abandon the longer races, the network was used by UTMB operations to efficiently coordinate teams and manage any minor incidents; however, as soon as the general alarm was raised, volunteers, emergency services, competitor support teams and the UTMB organisers instigated the emergency evacuation plan. There followed a rapid, successful evacuation of more than 2,500 runners spread across the course, often in elevated, inaccessible locations. The whole evacuation was coordinated and managed over the radio system, which ultimately played a key role in avoiding grave consequences for the runners, volunteers and all the support teams involved.

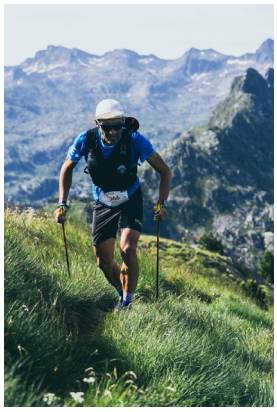
BENEFIT

As Xavier Pocino summarised: "The radio system was critical for the evacuation of the runners, as well as the organisers and volunteers, as it delivered reliable communications in areas where there is no mobile phone coverage. And the radios are robust, with long battery life and IP67 rating, so they continued working optimally throughout. The whole exemplary rescue and effective coordination of the rapid race evacuation was managed via the radios and it is frightening to think what could have happened if the system had not been in place." This is an example of a MOTOTRBO system, deployed to manage a race and ensure smooth event operations, coming into its own during a critical incident, to deliver completely robust and reliable mission-critical communications to avoid a potential tragedy.

Val d'Aran will once again partner with Expocom to deploy a similar MOTOTRBO Capacity Plus Multi-Site system at the 2024 event.

Benefits:

- Temporary deployment with fast, expert installation
- Robust, reliable mission-critical radio communications in mountainous areas with zero mobile phone coverage
- Exceptional audio quality
- Easy-to-use, robust radios with excellent battery life
- The radios proved key in the successful coordination and management of the evacuation of the two long distance races in 2023



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