

# Surrey FRS's ICU uses Primetech to deliver multi-agency communications

Primetech's advanced communications technologies (including High Definition incident ground video imagery, a fire sector first), and Aireshelta's shelter system, have been combined to create a spacious new ICU for Surrey Fire and Rescue Service (FRS), which proved itself highly capable in the winter floods.

When Surrey Fire and Rescue Service's new ICU vehicle was deployed to provide communications support for the service's wide-area, multi-agency flood rescue operations along its sector of the flooded River Thames in early 2014, the benefits of the service's communications planning were apparent for all to see. Under very difficult conditions, the service was able to deliver very high levels of satellite broadband command communications, both for itself and for all local emergency services.

This was as a result of in-depth strategic incident command planning by Surrey FRS, combined with the support of mobile satellite broadband supplier Primetech. Using Primetech's Ka-band systems, the service was able to provide high levels of mobile satellite broadband capacity for emergency command teams from all local emergency services and agencies.

**"Ka-band gave a much better broadband capacity than could have been achieved within the station."**

But mobile satellite broadband, using the new Ka-band frequency (which delivers higher data capacity than the older Ku-band system) is not the only distinguishing feature of the Surrey ICU. The unit is also able to collect and transmit High Definition video imagery from around an incident ground, from body-worn and aerial cameras, a major breakthrough in command communications.

## Multi-agency command

Surrey FRS's new ICU was deployed to its Chertsey station (a few miles south west of Heathrow), which was the incident joint forward tactical operating base, for around two weeks in mid-February, during the height of the flooding crisis. Based in the station's car park, and connected into the main building, it was able to provide previously unobtainable levels of satellite broadband communications capacity in support of command and field teams from the fire and rescue service itself, along with police, ambulance and other agencies, the local authority and volunteers, as they battled to help local communities.

When the new ICU was being specified the Ku-band had been looked at for satellite communications but it was thought that there might be capacity issues. At that time the Ka-band system was being developed, so the Surrey ICU team did a lot of work with Primetech to determine where the Ka-band system was going, supported by in-depth



*Surrey FRS's new ICU, with Ka-band satellite communications supplied by Primetech, can receive and transmit High Definition video, an industry breakthrough. Shelter is by Aireshelta.*

testing. It was found that, even in the early days, the Ka-band receivers were working very well in Surrey and around the borders of Surrey.

Working with multi-agencies was a key part of the planning for the ICU. There was a definitive user requirement stating what was required in terms of inter-agency liaison: being able to have access to the media, for conferencing, briefing crews, holding silver command meetings, and collecting information. All this went into the service's specification, as it is now doing more 'blue light' preparation than at any other time, working closely with the police, the ambulance service and the local authority on interoperability. The project team worked with other agencies in defining the specification, and they are continuing to work with other agencies now.

## Incident ground WiFi

Regarding incident ground WiFi, the vehicle already establishes a WiFi network, covering an area of up to 500m, depending on ground conditions and other buildings. It is very good around the vehicle and within the attached shelter, provided by Aireshelta. Incident ground WiFi is another area

that Surrey wants to enhance, and Primetech has now developed a Peli-case mounted portable WiFi unit using COFDM communications technology.

One of the reasons Surrey chose Primetech for its ICU communications was the research and development capability and expertise the company provided. The company has been working with Surrey FRS to develop and improve systems, and support its requirements. Surrey wants to enhance the spread of its wireless network, and is already looking at a project to use tablet-style computers for sector commanders and other officers around the incident ground.

## Cutting edge technologies

Commenting on Surrey FRS's use of Primetech's Ka-band mobile satellite broadband systems and High Definition video imagery, Henry Walker of Primetech said, "A key feature of Primetech's approach to its markets is the introduction of cutting edge emergency management technologies and communications solutions, which deliver real benefits for fire, police and ambulance services, backed up by exceptional customer service."

[www.primetech.co.uk](http://www.primetech.co.uk)



*Surrey FRS's new ICU supported multi-agency operations along its sector of the flooded River Thames, operating at the Chertsey station.*