



## CASE STUDY

### LONDON MARATHON 2009

#### **SIS LIVE provides full facilities for 2009 London Marathon for BBC Sport**

SIS LIVE, Europe's largest outside broadcast (OB) and uplink supplier, has provided the most comprehensive coverage to date of the London Marathon for BBC Sport. A total of seven OB units, six satellite uplinks, four motorbikes, two helicopters and a dedicated aeroplane were deployed to cover the 2009 race, which was broadcast live on Sunday 26 April to millions of people in the UK and around the world.

BBC Sport executive producer, Martin Webster, says, 'I'm very happy with this year's event. We worked with SIS LIVE for communications services for links and OBs and the coverage of the London Marathon went very smoothly.'

Webster, who oversaw BBC Sport's extensive live coverage of the event, says the BBC has worked with SIS LIVE – and its predecessor, BBC Outside Broadcasts – since the first London Marathon in 1981. Over the years, a lot of trust and understanding has been built up, and every year they work together to make the coverage better.

'Everybody knows each other very well, so it came together really well,' Webster says. 'At the same time, we have refined the process quite a lot.'

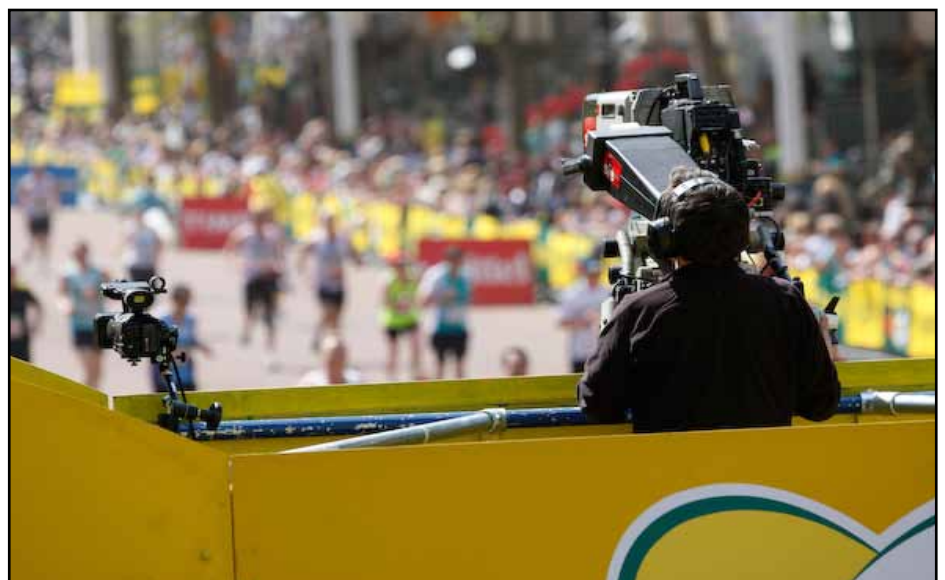
On the day of the race, BBC Sport provided comprehensive live coverage of the marathon on BBC One and BBC Two. Viewers were able to watch the live coverage all day by pressing the red button, while the BBC website also had live streaming of the race, as well as text reports, video interviews and reaction. All the programmes

were put together at Studio TC5 at Television Centre in West London.

#### **SIS LIVE facilities**

Geoff Layton, engineering manager at SIS LIVE, was in overall control of the facilities for the event and is the main liaison contact with BBC Sport and the marathon organisers, London Marathon Ltd.

'The coverage is very much a three-way relationship that we've built-up over the years and there's a lot of trust on all sides,' Layton says.





‘Because we’ve been doing this for over 20 years, the producers only want to make gentle changes to the way we do things. But we are always looking at the technology as it evolves and as new technology comes along, we adopt it.’

For this year’s event, SIS LIVE supplied a total of 37 cameras and 11 radio cameras along the route of the marathon, supported by 148 staff. A total of 19,860 metres of triax cabling was also used.

The two helicopters were fitted with gyro-stabilised cameras and provided aerial footage of both the men’s and women’s events. The seven OB trucks were positioned at key locations along the route to maximise coverage.

‘There was an OB at the start and the finish of the race – on Blackheath and on The Mall – and another at the Cutty Sark in Greenwich,’ Layton says. ‘A fourth OB was at Tower Bridge, where the race goes off round the Isle of Dogs, and there was another at Canary Wharf. Tower Bridge is a good location, because you get the runners going one way and then the other.’

Two further OB units were positioned at Billingsgate in the City and at Blackfriars Bridge on the Embankment, a valuable new addition.

### **Motorbike-based radio cameras**

The biggest challenge for SIS LIVE was covering the elite races by motorbike and a lot of time and resources went into this to ensure it went smoothly.

The front runners for both the men’s race and women’s race were followed throughout the course by two motorbikes each, one at the front of the pack and one at the back.

Over the years, the pictures from these bikes have been of mixed quality, mainly due to the unique environment of the race, travelling through very built-up streets, under bridges – and a long underpass in the City – and with a lot of tree cover on the way. All this makes it hard to get a clean radio signal and the only practical way of relaying the bike signals is via an overhead aircraft.

In the early years of the race, the only type of aircraft that could be used was a helicopter. Two were used, one for each race. The trouble was, they could only work by line-of-sight to the bikes and then on to the receiving site. What’s more, the helicopters would not have been able to go up if the weather was bad, or if the cloud base was low, the helicopters had to fly below it and couldn’t see the bikes because of buildings. The helicopters also had to refuel half-way through the race.

These problems were solved a few years ago by replacing the helicopters with a fixed wing aircraft, Skylink, fitted with an intelligent receive-aerial. This innovative piece of technology, originally developed by the MOD, can ‘track’ and ‘zoom’ in on signals from each bike. This makes it possible for an aircraft flying around in circles over the race to receive and relay signals from the bikes. SIS LIVE adapted the system so it could bundle the four separate feeds into one and send it safely onto Television Centre.

### **Review of all coverage**

Before the 2009 marathon, SIS LIVE conducted a wide-ranging review of its coverage and implemented several changes.

‘We looked at the history of the event, then at how the Americans do the New York marathon and how the Japanese do the Tokyo marathon, to see if there was anything more we could do. We also looked at the Olympics in Beijing,’ Layton says. ‘The conclusion we came to was that Skylink was the best approach, but that didn’t mean we couldn’t refine the system.’

One thing SIS LIVE trialled this year was a new transmission system for the bikes, using radio link technology on one of the four



bikes. 'The idea is that you have less interference going through trees and under bridges. We had one this year and it was very successful.'

### New investment

This year's coverage also benefited from new investment that has been made in the SIS LIVE fleet.

Over the past year, SIS LIVE has built two state-of-the-art OB trucks packed with the latest video and audio equipment.

OB 3, which boasts a next-generation video and audio matrix, was placed at the finish line on The Mall, with nine cameras feeding in.

'It is only because we have been taken over by SIS that we've been able to invest in such ground-breaking OB trucks. The investment we're getting means we're not just keeping up but leading the rest of the world with the technology,' Layton says.

One benefit of the new OBs is the exceptional flat-screen monitor bank – six conventional monitors have been replaced by a single 50-inch flatscreen preview monitor that can show multiple images. When the production team was trying to identify celebrities in the race, they were able to use the full screen size to show one image.



'We made the preview monitor a lot larger than normal so it made it easier to pick out faces in the crowd,' Layton says.

The uplinking expertise of SIS LIVE also came in handy at this year's marathon, not only for feeding pictures back to Television Centre. At the new OB site at Blackfriars Bridge, BBC Sport wanted cameras on both sides of the road which would create cable problems for the race.

'Because we have the uplink

technology to hand, it was easier to send the signal over the satellite rather than run a half-mile cable,' he says. 'It's part of being in a dynamic commercial company that has the technology to do whatever is needed to make the job a success. Everything came together well on the day and I think it was the best coverage of the marathon we've had. At the same time, we're going to be reviewing the event with BBC Sport and see where we can make more improvements for next year.'

