

## Concorde draws the crowds



When the Concorde fleet was recently taken out of service after some 30 years of air travel, there was a wave of public affection for the aircraft that once flew from London to New York in an incredible 2 hours 53 minutes. With this in mind, British Airways decided to place one of the aircraft on permanent display at Manchester Airport, together with a visitor

centre that would tell the full story of this technological icon. On April 6<sup>th</sup> 2004, Concorde Alpha Charlie took its place on its own "runway" at Manchester Airport's Aviation Viewing Park.

With Concorde significantly raising the status of the exhibit and visitor numbers to the aviation viewing centre, an appropriate level of security was required, for which Time CCTV of Macclesfield was commissioned. The objectives specified for the system were; protection and detection around the perimeter of the exhibit; clear crisp images under all likely conditions of the day and night; digital recording of images; on site monitoring from dawn to dusk; and out-of-hours monitoring off site. There were constraints too. Because the site is a visitor exhibit, the system needed to be as unobtrusive as possible. Equally, the fact that the site is at the edge of an airport imposed other restrictions – no visible floodlighting, and no wireless systems.

The design was built around five cameras, and four PIR detectors, with the images being stored on a local DVR and also being sent to the remote site. The PIR system can sound an alarm tone in both control centres in the event of movement detection. There is also a PA system at the site so that the local and remote control rooms can deliver voice warnings and advice as required.

The four external cameras are 1/3" Pecan SC5712ST high resolution low voltage colour/monochrome using Computar lenses – the TG4Z2813AFCS vari-focal 4X 2.8-12mm lens, and the longer focus TG10Z0513AFCS vari-focal 10X 5-50mm lens, all in Dennard D506 outdoor housings.

In low light the whole area is illuminated by infra-red light from 4 Vista 300W Infra-Red flood lamps, with infra-red being used because of the restriction on visible light at the airport perimeter. With any installation using infra-red lighting it is essential that the cameras will work well with the IR light – not all cameras do, and this was one of the key selection criteria for the cameras and lenses.

The PIR detectors are Redwall LRP100Q units with a range of 100metres. The cosmetic considerations of the site required that the cameras and PIR detectors were mounted discreetly on existing poles, and the wireless restrictions meant that the PIR detectors had to be cabled backed to the control centre, rather than using simpler wireless connections. There is a fifth camera inside the visitor centre – a Vista VFD-13C 1/3" colour mini dome.

The DVR is a VideoSwitch VDC/9/G160, a compact 9 way 160 gigabyte device with built-in CD writer for quick archiving of images. The on-site control centre uses a single Vista Tv14e colour monitor for viewing. The cabling is 300 metres of high quality co-ax, a run length that requires no boosting.

Connection to the remote viewing centre is enabled by an Adpro 200905 FSM-Tx, Fast Scan Mini, 5 channel Transmitter, using a modem to link to the PSTN (Public Switched Telephone Network) for two-way connection with the remote site. Two-way connection is needed for both interrogation of the on-site DVR, and the delivery of voice over the PA system.

Conrad Holgate of Time CCTV is very pleased with the design and its effectiveness. He explained: "This is an important and high-profile site, and our design options were limited by number of technical restrictions because of the airport location. The result is fully functional, the picture and record quality is excellent day and night, and the PIR detectors and cameras provide a total and secure coverage of the perimeter. The call-out in the event of a problem goes straight to the Airport Police, who can be on site very quickly."





“We use Norbain to supply most of our security equipment, and we usually check our designs with them before placing our order. We get good advice, for example on whether camera A will work well with infra-red lamp B, and they may suggest that we also consider some alternative products as required. It is very helpful for any installer to have this breadth of up-to-date technical knowledge to fall back on whenever it is needed.”

The client is also content that the new exhibit is well protected. Richard Edwards, Airfield Facilities & Contracts Manager with Manchester Airport said: “Concorde has proved a huge success at the Aviation Viewing Park, and I am satisfied with the level of security afforded by the perimeter surveillance. Time CCTV and Norbain have certainly delivered an excellent system, meeting the specification and providing complete high-quality coverage of risk areas.”