



## Case Study

### **57<sup>th</sup> International Tour of Austria**

**July 4-10, 2005**

The International Tour of Austria takes place during the first week of the Tour de France every year. The official launch presentation of the 2005 event was held in Kitzbühel in March – a day of brilliant sunshine and picture postcard scenery.

Four months later, the summer weather was not so kind and on the second stage, the weather was so bad that the race had to be stopped early. The event is famous for its demanding climbs, but with heavy snow already falling, the downhill section from Grossglockner to Linz was judged to be too dangerous to race.

However, despite the bad weather, with the Skylink platform airborne throughout the race, ORF were able to broadcast uninterrupted coverage. In full icing conditions, the PC-12 aircraft cruised at 24,000ft above the event, relaying the video links to the Outside Broadcast trucks directly.



*The Pilatus PC-12 can take-off and operate in full icing conditions, enabling Skylink to guarantee robust video links in all weathers*

This experience highlighted the unique reliability of the Skylink relay service. Three months earlier the Amstel Gold Race in Amsterdam could not be broadcast live because the relay helicopters were grounded due to bad weather. The PC-12 could have hovered above the clouds, relying on instruments alone, and guaranteed perfect picture transmission

#### **Technical Set-Up**

Four uplinks were relayed via the PC-12: three motorbikes and one helecam.

Two of the motorbikes were fitted with analogue video transmitters, the other a digital transmitter from Tandberg. The digital link was set-up for high robustness with the QPSK modulation scheme selected. All of the motorbike uplinks had 4W of RF power transmitted through an omni antenna.

The helecam uplink was also analogue, but had a higher transmitter power of 10W.

On board the PC-12, the video links were demodulated and decoded, allowing the operator to monitor the pictures. All of the downlinks were digital encoded and multiplexed together for transmission back to down to the ground via a single downlink transmit antenna. 70km away, the downlinks were received using a range of auto-tracking antennas and dual input diversity.

#### **Future Plans**

The race organisers believe that they have got the timing of Austria's biggest cycling race just right. "During this period there is no other top class race on the calendar, besides the Tour de France. The cyclists who are not in France would have to take a few weeks break from racing." says race director Franz Steinberger.

And although even in July the weather can be unreliable, with Skylink on board, the broadcasters know that they will always have perfect pictures whatever the weather.



*Despite the heavy snowfall, ORF were able to broadcast uninterrupted coverage of the 2005 Tour of Austria*