Telemedia, Johannesburg

With Optimism for the Future – that is Peter Bretherick's motto. He operates an uplink station in Johannesburg, South Africa under not exactly ideal conditions. Peter originally came from Great Brittain where he worked for many years for the BBC. In 1970 he made the move to this region, almost 5 years before South Africa TV started transmitting. In 1980 he became self-employed: his starting capital was his garage, his spectrum analyzer and his four-wheel-drive SUV. His first contract was to erect T.V. Repeaters on the diamond mines of Botswana, followed by several contracts for the establishment of the new Bophuthatswana Television. He was successful and started his own company Telemedia in 1981. In 1987 he moved into a new building in Rivonia, a suburb of Johannesburg to the north, where he can still be found today. With only four employees back then, he handled the microwave links for the channels groups for the then MNET and SABC.

In 1994 it was finally time: South Africa's Telecom placed an order for the first satellite uplink. Peter explained to us, "We were using a Patriot TVRO antenna and modified it into an Uplink antenna." He recalled the first satellite uplink: "It was the Intelsat 704 satellite at 66° east." Over the course of the next year things began to pick up. His employee count climbed to 10 and there were more and more uplinks, occasional feeds and SNG transmissions. "The first live transmission out of Africa was the soccer match in Malawi in 1995", comments Peter as he remembers his pioneer days. Today Telemedia employs more than 30 people of

The 4.6-meter antenna to the left beams channels to HELLAS SAT 2's South African beam at 39° east; the dish mounted on the taller mast is pointed to ISS 1 at 34° west, with 7° Elevation to the satellite

The footprint of the South African beam of HELLAS SAT 2 at 39° east.

The planned sub-Saharan footprint of SIRIUS 4 at 5° east to be launched towards the end of 2007.

which 20 of them are engineers, 10 are in administration plus a further eight security guards that (must) keep an eye on things 24 hours-a-day.

An interesting development in Africa has turned out to be the religious channels. Telemedia managed to find a gap in the market here. The company made available a number of different studios that handled all of the audio and video processing and, of course, the direct satellite uplink. There are an uncountable number of different religious groups in Africa and each of them wants their own TV channel. Telemedia offers all these religious communities the necessary infrastructure at affordable prices. The advantage is simply that the channel provider has to merely worry about the content of their programming and not, for example, about a diesel generator that would need to take over whenever there was an ESKOM (their local electric utility) power outage, and this happens more often than not. Since only a few of these religious groups operate with adequate financial support, Telemedia offers their services at very low but more than sufficient levels. Telemedia is the market leader in this area for that reason.

Peter has other reasons to be optimistic about the future: the South African telecommunication authorities is about to issue licenses for new satellite PayTV providers that should take effect in the Fall of 2007. This will be in direct competition to today's DSTV PayTV monopoly. Since the INTELSAT 7 satellite at 68.5° east

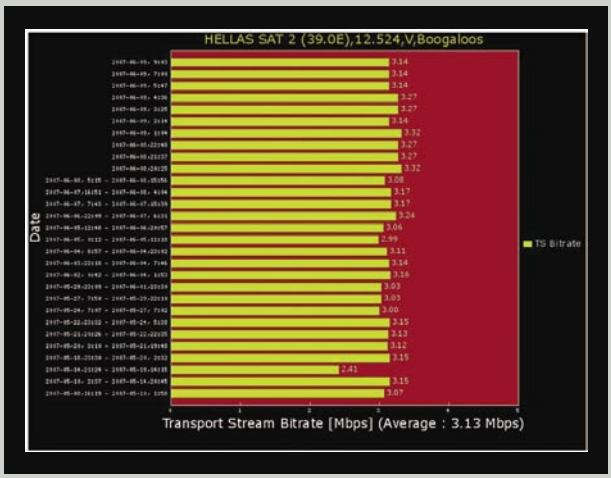
▲ **Telemedia has more than 33 antennas – or maybe we miscounted and it is really a few more...here we see a 4.5-meter antenna to the left pointed to 7° east, a 7.3-meter antenna in the background aimed at AB1, a 6.5-meter antenna for 64° east as well as the 4.3-meter antenna to the right for INTELSAT 10 at 68.5° west. The small two-meter dish in the background is pointed to ISS 12. We asked Clive Grove why the larger antennas are of a Gregorian type: "Performance is better, it can be better aligned and is easier to adjust." Don't forget: the larger the antenna, the smaller the beamwidth and therefore the more precise the antenna's alignment must be.**

▲ Peter Bretherick is Managing Director and owner of Telemedia Ltd in Johannesburg. Here we see him in the master control room from which, for example, horse racing transmissions for the Racing Channel are put together. Here the uplink for the View Africa channel package as well as the HELLAS SAT packages are handled. The uplink antennas are controlled via a switch panel.

▲ Here is the heart of the View Africa channel package: reception monitors and receivers can be found in the cabinet to the left while the right-side cabinet houses the various encoding slots for all the different channels. The feeds for many of the channels originate from the studios that are only a few steps away.

▲ With so much electronic equipment it comes as no surprise that repairs are often necessary. Telemedia has employees whose sole job is to repair defective equipment.

▲ Clive Grove is Telemedia's Project Engineer. Here he shows us the cabinet with all the encoders. Clive comes from England and installs satellite antennas in many African countries. He is also a TELE-satellite writer!



▲ SatcoDX's bit rate display for the Boogaloos channel on 12.524V; a portion of the FTA programming package first discovered by SatcoDX in May 2007. It is a sports channel that focuses on extreme sports.

used by DSTV has no more capacity, the new PayTV providers will need to operate on new satellites. One possible candidate for this would be the HELLAS SAT 2 bird at 39° east. Some TV channels are already transmitting from this satellite's South African beam; SatcoDX discovered these channels back in May 2007. Who is handling the uplink for these channels? If you answered Telemedia, you would be right. But there are other candidates: the SIRIUS 4 satellite that should be launched towards the end of 2007 and be positioned at 5° east will have a South African beam. And there are even other potential satellites.

The satellite skies over South Africa are starting to get interesting. The more channels that are transmitted, the more inquiries that will arise not only for the transmission end but also for the receiving end of things. A new market is about to be born!

▼ **A look at one of the studios from which religious channels are leased out.**