



BGAN HDR on air

Nylon films share the re-tracing of an incredible historic journey in real time with BGAN HDR

BGAN HDR provides a set of four, on-demand streaming rates through a highly compact and portable terminal, worldwide. It provides live video at speeds averaging 650kbps on the full channel option, making it the fastest streaming rate service in the world of mobile satellite communications. It also offers access to BGAN features such as Standard IP, voice and SMS.



Being able to bring your audience on a journey is every broadcaster's ambition.

And since 2005 Inmarsat's BGAN service has helped journalists around the world to achieve just this.

However, our newly launched BGAN High Data Rate (HDR) is revolutionising live broadcasting by providing significantly increased streaming rates for even higher quality video newsgathering.

Filmmaker Annette Porter has firsthand experience of using Inmarsat's cutting-edge services while making a documentary about pilot Tracy Curtis-Taylor, who recreated Mary Heath's 10,000 mile journey in a biplane.

Not only was she able to share the extraordinary visual adventure, but also to interact with her audience around the world, making them feel as though they were on the journey too.

The producer who runs London-based Nylon Films says she was 'blown away' by what the service allowed her team and the pilot to achieve – from alerting the world to rhino poachers via live broadcasts to communicating with fans.

"I was pretty sceptical about what the service would allow us to do. But it exceeded all my expectations. It was 100 per cent reliable, lightweight, low profile, incredibly easy to use," she said.

The challenge

In 1928, Mary Heath became famous as the first pilot, male or female, to fly a small, open-cockpit biplane solo from Cape Town to London.

Inspired by her determination and passion, Tracy flew the same route in The Spirit of Artemis, a 1930s Boeing Stearman biplane, taking off on November 2, 2013 and landing in England on December 31.

The plane has a top speed of 95mph, an operating altitude of only 10,000 feet and a range of just 450 miles – and an open cockpit exposed to all the elements.

Annette followed Tracy across some of the world's most turbulent countries, sending back live broadcasts to TV studios and



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Annette Porter
Company Director, Nylon Films



sponsors using Inmarsat's latest and fastest BGAN HDR streaming service via Cobham's EXPLORER 710 satellite terminal.

Livewire Digital's NetCaster allowed the crew to use their iPhone or iPad to send real-time photos, sequences of stills and video directly via BGAN HDR, empowering the crew in ways they never thought possible. This technology means that journalists from any background can change how they work and puts them on a level playing field with the world's major broadcasters.

Our services also allowed two-way communication with Annette's audience via social media – a major benefit that Annette initially overlooked.

"To be honest we didn't envisage the two-way communication it enabled," said Annette.

"But it meant we could download stills and have a two-way conversation with our fans. They loved the immediacy of it - that we were able to upload stills to the Facebook page, even from remote, dusty airstrips with no services. This level of interaction is very powerful when it comes to marketing a documentary"

Another key benefit for Annette was being able to send back stored and edited video footage at anytime, anywhere – however remote - rather than having to wait for an internet connection.

"This meant we could get instant feedback from our executive producer in London, helping us keep on the right track," she said.

Making their journey possible

Inmarsat's service was integral to logistics and safety, from planning flight paths to checking weather forecasts and political situations – especially when cellular coverage and Wi-Fi was at best patchy, and at worst unavailable.

"We were making great progress until the coast of Egypt when we hit a huge storm – the first snow to hit the area in 200 years. It grounded us for ten days as the weather was so bad.

"We ended up at a deserted beach resort with very limited services and the service came into its own.

"Despite the weather being severe, the connection was so reliable and the terminal so rugged that it allowed us to continue with planning our journey.

"We were able to check the weather which was incredibly important as once we took off from Egypt, Tracy would have to fly across 300 miles of sea to Crete. If the winds on the route ahead were against her, then she'd run out of fuel."

Unlike Mary, the team was also able to plan the safest route, accessing trusted websites, right up to take off.

"Mary had flown across Sudan, Libya, Egypt to Tunisia because she was afraid of water and from Tunis, she would have only a 90 mile journey across sea.

"We were able to monitor hot spots as we flew over Africa. The situation in Libya deteriorated to the point that we were advised not to fly over their airspace, but the ability to check online with BGAN at any time, allowed us to map a path over South Sudan, which was safer for all involved."

Mobility, ease of use and safety

In terms of mobility, Annette and her team found the compact terminal very easy to carry – crucial to filming on the go.

"We were already going to have to lug around 300lbs of film equipment, so I thought the terminal may be another heavy thing to carry, but I was very pleasantly surprised as to how lightweight it is. It's extremely portable and can easily fit it in a backpack."

"It's also low profile which is important in not attracting attention; when you're making a documentary you want filming to be as natural as possible. With the satellite solution we had, we were able to upload stills and broadcast quickly and easily."

Live broadcasting

One particular distressing incident in Kenya illustrates how our service helped alert the world to a horrific rhino horn poaching within hours of the killers striking.

The team visited the Lewa Reserve to meet three orphaned baby rhinos, one of which had also featured in a documentary made by wildlife filmmaker, David Attenborough.

"Mary Heath had written about how wonderful it was to see so many elephants and rhinos – yet sadly we saw far fewer all along the route," said Annette.

"The baby rhinos, one of which was blind and another whose mother had been poached were being hand reared by Sarah Watson, of the Tusk Trust, in the hope of eventually being released back into the wild. They're incredible animals and it was a wonderful experience to meet them.

"However, that night it was a full moon and poachers broke into the reserve with rifles and killed a pregnant mother and then ripped off her horn.

"We were able to beam the news to African and UK media and to one of our sponsors at an air show in Dubai. Sadly, I don't think they caught the poachers, but we were able to show the world how the rhino horn 'trade' is still ongoing.

"I'm not sure how we would have done this without Inmarsat's service."



Peace of mind

Throughout the journey, the team always felt safe – knowing that communication with the outside world was just a call or click away however isolated or hostile the environment or political situation.

They used an IsatPhone Pro, Inmarsat's handheld satellite phone which helped them to keep in contact with contributors across different countries in case of delays or problems.

It also allowed them to keep in touch with family and friends to let them know they had arrived in different locations safely.

Annette was especially pleased to have taken the IsatPhone Pro with her when her Cairo taxi was involved in a multi-car pileup – resulting in a huge fist fight.

"I was on my way to the press office in the city centre and an articulated lorry slammed into the back of us, crushing the back of the taxi and shunting us into the car in front which jack-knifed. The whole road was blocked and people quickly became very angry.

"Even my driver was dragged into the fight. I gave him my fare and ran off down the road. I'd grabbed the phone just before I left the rest of the crew at the airport where we had landed earlier – and I'm so glad I did. I managed to call London and they helped me to work out where I was and to get a driver from the hotel to pick me up."

The future

In terms of using the service for future projects, Annette is very enthusiastic about its huge potential.

"I would definitely use the service again, and would like to do even more with it in terms of social media and broadcasting now that we understand what it's capable of.

"I'm not sure that many broadcasters really understand its capabilities but we have proven how well it works and I'd definitely recommend it to broadcasters – it really is phenomenal."

Sharing the journey in real time

Edited video and stills were delivered via BGAN – Inmarsat's broadband IP service – to help feed social media channels and keep people informed as the journey progressed.

iPhones equipped with Livewire Digital's NetCaster app were also used to take part in live multi-party interviews, and to send in real-time photos, sequences of stills and video, directly to the producer.

This feed could be streamed live to the internet, where members of the public interested in following the journey could log on and watch the action as it unfolded.

How BGAN HDR and Livewire Digital's M-Link and NetCaster app work

Communications technology today would be unrecognisable to Mary Heath back in 1924 when the only way to update her followers was via telegrams.

But thanks to Inmarsat and its partner Livewire Digital, her recreated journey was shared all over the world via social media channels and through live feeds to international broadcasters.

Live video and audio was delivered to broadcast studios via Livewire Digital's M-Link solution, which was sent over Inmarsat's satellite network via our new BGAN HDR streaming service, which delivers the highest quality video in the world of mobile satellite services, with an average speed of 650kbps. Just like BGAN did back in 2005, Inmarsat has once again changed the way broadcasters deliver news.

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