

4K resolution

World's first handheld camcorder
to feature 4K resolution

HIGHWAY



Antarctic mission

3D camcorder battles extremes to capture footage from this ground-breaking expedition.

High fibre production

GY-HM790 fibre studio cameras used with KM-H3000 production switchers for live concert.

Issue 18

JVC

News in brief

2011 ended very sadly for us at JVC, as we unfortunately lost our well-loved and highly-respected colleague, Kevin O'Malley, who passed away. This issue of HIGHWAY remembers him fondly, as we look at some of the technology he really loved.



Projector screenings

3sixtymedia and Framestore have purchased new DLA-RS Series JVC projectors for use in their screening rooms.

3sixtymedia bought three DLA-RS65 projectors from Digital Garage for use in its dubbing theatres for high quality previews of its shows. Meanwhile, Framestore has purchased yet another DLA-RS Series projector to add to its collection. "Every film project for the last four years has been put through a JVC projector in our dailies presentation suites," explains Andy Howard, Framestore's chief engineer. "The projectors have great colour accuracy, and we trust that the image is always consistent and of the highest quality."

Moondance and The Zoo

Dublin-based production company, Moondance, has recently upgraded to a tapeless workflow with the GY-HM750 camcorder, ready to use on the new RTE series of *The Zoo*.



"I have been shooting on JVC cameras for over fourteen years, having first used the 3-chip DV camcorders, and have been successfully producing broadcast programmes ever since," said Shane Brennan, Managing Director at Moondance. "My first documentary was shot on the JVC GY-DV500 and since then, I have produced programmes on the JVC HDV camcorder that I purchased a couple of years ago, including the first series of *The Zoo*."

With advice from Eurotek, Ireland, Shane decided to make the jump to a tapeless workflow. "All our post production is done in-house with Final Cut Pro, so the close integration with the JVC camcorders together with my long history of using JVC cameras made my decision a very easy one. The transition has been seamless so far! We are currently shooting the next series of *The Zoo* on the new GY-HM750 and I hope this is the first of many broadcast projects."

GY-HMQ10 4k camcorder

World's first 4k handheld records to standard SDHC/SDXC cards



Launched this month, the new GY-HMQ10 handheld camera is the world's first to offer 4k resolution at such a small footprint. Capturing, recording and playing video images at four times the resolution of HD, the new camera means cost-effective 4k end-to-end production is now a reality.

Powered by JVC's Falconbrid large-scale integration (LSI) chip for high-speed signal processing and a 1/2-inch CMOS imager with 8.3 million active pixels, the GY-HMQ10 delivers real-time 3840x2160 footage at 24p and 50p. Using MPEG-4 technology and a variable bit rate H.264 codec operating at up to 144 Mbps, the GY-HMQ10 records up to two hours of 4K video to economical SDHC or SDXC memory cards.

High resolution 4K still picture imaging has been around for a while in DSLR cameras. Motion video capture with these cameras has always been done at a lower video resolution due to lack of processing power. Likewise, high end digital motion picture cameras may capture 4K images, but often provide a raw data output to an external storage array for later processing, again due to lack of processing power. There hasn't been the ability to capture, process, display and record full 4K images in real time until now.

JVC's exclusive Falconbrid LSI processing takes raw image data from the camera's CMOS device and dematrixes (deBayers) it in real time. Unlike many high end 4K cameras, the GY-HMQ10 is able to output live 4K images to a monitor or projection system in real time with virtually no latency. This capability opens up many applications in cinematography, medical microscopy, telepresence, specialised observation / surveillance and live wide-view event coverage.

In addition to 4K imaging, the GY-HMQ10 also captures and records astonishing 1080i or 1080/50p full HD, with extraordinary detail. HD is recorded on a single memory card in a format compatible with most editing systems, and there's the ability to crop an HD image from a 4K frame. The 'trimming' feature makes HD cropping easy using the camera's touch panel LCD monitor, and means that there's always the ability to get a good HD image out of the picture, providing great flexibility, especially during post production.

SR-HD2500 NEP Visions invests in SDI recorders for OB trucks

The new SR-HD2500's SDI interface makes it possible to record high definition content directly to HDD and Blu-ray or DVD. NEP Visions has invested in twenty of these SR-HD2500 recorders for use in its new HD OB trucks.

The SDI interface, adopted by the industry, enables direct to Blu-ray recording, perfect for use in OB vehicles for programme recording, or for live events and post production. The deck allows the user to create standard Blu-ray high-definition discs or standard DVDs from a large variety of high definition content sources without the need to utilise complex software or IT hardware.

Through its support of industry standards, the SR-HD2500 is also compatible with HDV or AVCHD cameras, offering the benefit of easy content distribution. And for the majority of clients who distribute their content in SD, there's automatic downscaling of HD content, allowing the footage to be burned to standard definition DVDs.



ProHD on its travels

The GY-HM100 handheld camcorder proves its reliability and versatility out on location time after time. Filmmaker Tim Tyson Short, from Cardiff-based production company, TagliaTelly, has produced many documentary films and footage, chronicling the good work of NGOs around the globe, and finds his ProHD camcorder invaluable in often demanding and technologically-unfriendly conditions.



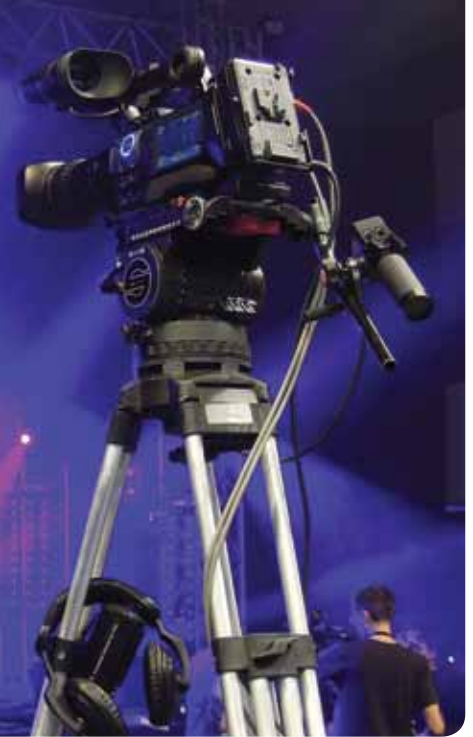
With technological support sometimes hundreds of miles away, it's vital that Tim has a camcorder he can rely on to catch the human stories taking place in the rural, often impoverished areas he visits with the aid workers he films.

"I bought the GY-HM100 as I needed a card-based HD camera that was compact and lightweight" Tim explains. "The DSLR route was an obvious temptation but there's simply too much paraphernalia involved for me working as a one man team. I need to be able to grab my camera,

Live production Fibre studio system used for concert

JVC was part of the celebrations when top Czech popstar Ewa Farna turned 18. The platinum-selling singer performed a special concert to mark the occasion, which was captured by eight GY-HM750 and GY-HM790 cameras via steadycam, cranes and a dolly.

JVC's partner, DISK Systems, used two GY-HM790 cameras featuring the FS790 fibre system for the event, along with a JVC KM-H3000 digital production switcher to handle the camera feeds and produce a preliminary cut for a DVD of the concert. This is a very flexible, low cost solution, ideal for live productions of this kind. DISK was also able to invite other potential customers along, who were interested in seeing the fibre technology in use during this demanding live shoot, as well as enjoy the concert from the commercially-successful singer.



roll out the car and start filming, without having to fit viewfinders, shoulder rests and mics.

"My first job with the camcorder was at a lodge in Tobago; I edited at home and was astonished and delighted by the results. A recent test for the camera was a six-week shoot in Nepal, Bangladesh, South Africa and Rwanda/Uganda. Even with countless flights and customs to get through, there were no problems, as the GY-HM100 does not scream 'journalist' or 'filmmaker' if inspected. It worked throughout

the shoot without a problem – the SD cards are cheap and almost disposable and the dual slots are very handy, switching from one card to the other without losing frames."

Tim was particularly impressed with the camcorder's resilience. "With humidity or pure heat, on mountain tops or in slums, it just did its job, capturing good clean images with almost film-like colour. Even in low light the gain is not too noisy as to render shots unusable. As a one-man filmmaker, the camera lets me film and edit with ease and confidence."

Make light work

Simple fibre connectivity with the GY-HM790 studio/ENG camera.

Introducing the GY-HM790 studio camera and compact KA-F790 fibre adapter; a low cost solution to the high costs of HD. The camera's innovative modular design offers the ultimate in connectivity, and is versatile enough to play a central role in the studio or out on location. Using a 68-pin connector on the back of the GY-HM790, the compact KA-F790 attaches directly to the camera body and enables broadcasters to leverage the GY-HM790's full studio functionality in the field via SMPTE hybrid (powered) or tactical (unpowered) fibre optic cable.

For further information about the GY-HM790 fibre studio camera,
please visit www.jvcpro.co.uk.

ProHD

JVC

Strictly Come 3D

The BBC has continued its 3D trials with the broadcast of *Strictly Come Dancing 2011: The Final*, one of their highest-rating programmes. Filmed at the Tower Ballroom in Blackpool, the JVC IF-2D3D1 converter was used to provide dedicated 2D to 3D conversion.



© BBC

Strictly Come Dancing was filmed in 3D using seven 3D camera rigs (five pedestals, a steadicam and a technocrane). The JVC IF-2D3D1 provided 2D-3D conversion for a 2D camera on a jib arm at the top of the ballroom. The jib arm camera provided a stunning view, as well as a safety shot, as it always had all of the show in view. The 3D conversion was spectacular, giving depth to the whole ballroom.

Antarctica in 3D GY-HMZ1 reaches new extremes

JVC's GY-HMZ1 3D camcorder has been busy filming never-before seen regions of the planet as part of the *Antarctic Ice Expedition*. The camera and the team are currently battling extreme weather conditions, with temperatures down to -35°C , capturing the dramatic landscape in 3D.

The Belgian team of medical student Sam Deltour and seasoned explorer Dixie Dansercoer are undertaking a 6000km, four month trek around the largely unexplored east of this ice-covered continent. Cameraman Mark Boone, from Belgian production company Beeldharing, was also there at the start and during preparation for the event. The expedition, which set off in November 2011, is in honour of the 100th anniversary of the Race to the South Pole between explorers Amundsen and Scott.

Mark Boone decided that the best way to capture this great endeavour was with 3D video – something now possible thanks to the new generation of compact handheld stereoscopic cameras. So far, the GY-HMZ1 has provided more than a match for the extreme conditions found on this unique shoot, functioning for over 80 days at temperatures between -15° and -35° , even when other manufacturers' cameras failed due to the severe cold.

"The camera is fun, lightweight and compact, with fantastic resistance against cold," Boone explains. "It was the ideal



© Polar Circles, Dixie Dansercoer

size and weight, which were crucial factors, and offers full HD 3D recording with balanced audio connections. The intelligent auto mode is very convenient for instant recordings, but manual control of several settings is also a big advantage."

The camera's design was well suited for the demands of this unusual filming location: "The lens cover was very practical in the extreme weather conditions, as was the internal microphone, which makes it easier to just put the camera in the pocket of your jacket," Boone adds.

The Antarctic Ice Expedition (www.antarcticice.be) is due to reach its conclusion in February, with the footage to be used in a documentary chronicling this record-breaking journey.

48-hour test drive

See if you like the GY-HM750
as much as we do.

Introducing the GY-HM750 – a highly mobile and professional dual memory card camcorder. Based on an upgraded digital processing engine, the GY-HM750 is able to record either HD or SD directly to economical SDHC solid state media. Record to both cards simultaneously for an instant backup, or individually for virtually unlimited recording time.

But don't just take our word for it – try the 48-hour test drive for free
by visiting www.jvcpro.co.uk/jpe/testdrive and make up your own mind.

ProHD



Free iPad 2
with every GY-HM750.

Terms apply, time-limited offer,
please visit website for details.

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