

HDVideoPro catches up with Jeff Morales, a producer and shooter at the National Geographic Channel, to ask what the world's smallest professional HD camera, the Iconix HD-RH, 1 has to offer the outdoor adventure channel

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Eye  On

Iconix



As a producer for National Geographic Television, Jeff Morales is constantly on the roam for innovative cameras. He understands the importance of having high-quality equipment for recording intimate encounters with animals in the wild.

As one can expect, budget is a constant concern. Shows often take months to shoot in order to acquire enough footage to garner an episode. Weight constraints in the field are another issue. Yet HD has now given rise to higher expectations from the viewer:

"More and more people are expecting feature production quality on documentaries, but we're always operating on fixed budgets," explains Morales. "The trick is to figure out cheap ways to add to the production quality to satisfy the public desire."

Enter the Iconix HD-RH1, a camera that caught everyone's eye at NAB last year. The tiny camera tips the scales at a mere 2.3 ounces. It's a 1/3-inch progressive 3-CCD HD camera (2048 x

1152 pixels) that's roughly the size of a golf ball.

The multiformat remote head outputs in 720p, 1080i and 1080p signals at a variety of frame rates from 60 down to 23.97 frames per second. The sensitivity of the camera is rated in tests at around 400 ASA and operates with a C lens mount.

The robust camera head is attached to a processing controller unit that weighs in at a fairly hefty 3.5 pounds, but the total setup enables shots to be created where a crane system would be practically impossible to build. A lighter aluminum chassis is now available in place of the steel case but has the disadvantage of being less protective to the components in the field.

As soon as Morales heard the buzz surrounding the Iconix HD-RH1, he knew it would fit the bill in a number of upcoming expeditions at National Geographic. "It's one of those things that we knew someone would create sooner or later," admits Morales.



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“We were chomping at the bit for a camera design like this. I always work with what we term lipstick cameras of one sort or another. These small cameras allow for different types of perspectives that you just can’t get with bigger units.”

Morales had previously used endoscopic cameras on insect shows to catch amazing perspectives for audiences. “You can get down on the ground and see the world from their point of view—but the capture was always in SD,” says Morales. “The HD capabilities of the Iconix were definitely exciting.”

With a beta version of the system in hand, Morales and his crew ventured out to Alaska’s Katmai National Park. It contains the world’s largest protected brown bear population, which is estimated to number in the thousands.

The brief was to capture footage of the bears for the “King

Bear” episode of the HD series *Planet Carnivore*. The show looks at Apex predators in different habitats across the globe. Other episodes feature polar bears in the Arctic, lions in the Savanna and great white shark in the cold waters of South Africa.

Two Panasonic VariCams and a Panasonic HVX200 were carried to shoot the bulk of the material. As Morales puts it: “A really nice, reliable kit that’s taken to the extremes but durable in all conditions.” Morales also noted that the HVX200 shot beautiful time-lapse photography. But neither camera was capable of shooting the unique photography for which the Iconix was designed.

Brooks Falls was one memorable spot where the crew



tested the Iconix system. Here, an observatory platform overlooks bears as they congregate to feast on salmon swimming upstream—perfect footage for the show. Fishing here grows fierce; bears are desperate to add bulk as winter approaches, so they gorge on the protein and fat of the sockeye.

"We used a 20-foot pole with the Iconix attached to the end," explains Morales. "The camera caught footage of bears as they grabbed salmon swimming upstream. There's no way a bigger camera would catch these images because of support needs. Plus the small size of the Iconix made it inconspicuous to the bears."

Another use for the camera was recording various establishing shots of landscapes and reveals, such as on the precipice of a cliff or on the cusp of a big bay. Ease of setup and unusual angles were the order of the day in these situations.

Mounting holes on the top and bottom of the camera were also useful. "It's a portable unit, and that definitely helps in

remote locations where you just can't rent or drag heavy equipment around," states Morales.

The HD capture was something that also jazzed Morales during the 60-day shoot. "What really excited us about the Iconix was the HD option," he continues. "We did a lot of transitional or scene setters and other shots where you'd normally use a Jimmy Jib—big moves looking up or sweeping down over trees to reveal a scene."

Previous low budgets where crane shots were impossible entailed jerry-rigging anything within reach in the field, such as a simple boat oar or a long window washing pole to attach a camera and get boom shots on the cheap—sometimes a tricky maneuver with a heavier camera. The Iconix nixed such issues.

"It's a lightweight rig that has advantages over bigger cameras," outlines Morales on the issue. "You can be really creative with it on a budget. We walked away with great-quality HD

is a win-win situation. You get amazing perspectives without settling for lower-quality imagery."

NGC has purchased three Iconix HD-RH1 cameras since the demo field test. As of March, Iconix has sold more than 200 packages. The system comes standard with camera head, CCU and power supply.

The camera system has also garnered attention in a number of different media shows. Movies, such as *Ocean's 13*, and television fare, including *CSI*, have found the system invaluable at creating a variety of shots, especially those in tight spaces and at hard-to-reach angles. The



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shots that were vital to enhance the production value of *Planet Carnivore*. It was really impressive."

The Iconix setup was easy and fast. The camera was attached to one end of a Polecam with a cable flowing out from the back that connected directly to the power source, the recording deck and the monitor. There are no controls on the camera. The crew would see images being caught and then make the necessary exposure adjustments in the camera box when required.

Recharging batteries in remote areas of Alaska was one issue that needed to be solved in preproduction. "We had a few solar rigs but obviously couldn't count on them all the time because of the weather in Alaska," explains Morales. "A lot of the time, we relied on fully charged marine batteries. Katmai National Park doesn't allow generators, so that was also a non-option."

VariCam and HVX200 footage sat nicely alongside the Iconix recording due, in no small part, to staying compatible with DVCPRO HD. "That's one of the most important advantages of using the Iconix," quips Morales. "Because the Iconix is HD, it's seamless. We easily integrated shots with the other HD cameras."

"In the past, to get these kinds of unique perspectives, we had to deal with mixing SD images alongside HD footage. That may not be an issue on SD television, but on any HD monitor, you can't really get away with it. Granted, you can use SD if you're showing an animal's POV for aesthetic reasons, but it's too jarring if you look at SD and HD together. The HD option

Star Superior Technology Award from *TV Technology* and the Top Innovation Award from *Television Broadcast* are two recognized awards to also tip their hats in the Iconix direction.

Morales is currently working on a future episode of *Planet Carnivore* focusing on Canadian moose. "We're planning to put the Iconix in an underwater housing unit to photograph the moose underwater," says Morales. "Those kinds of perspectives shot in HD are going to be incredible."

At NAB this year, the Iconix was showcased with a new remote control panel and a new digital I/O package that will take fiber directly from the controller. This eliminates the need to run HD/SDI to a fiber converter box. The fiber option also provides a means of maintaining a pristine signal over long distances. Fujinon also announced the HAF4.8DA 4.8mm HD lens to use with the camera that will retail for around \$7,000. HDVP