



A Close Look at the Hands-Free POV Camera Market

By Peter K. Burian

Initially targeting professional skiers, cyclists and skydivers, the hands-free camera category has really expanded its scope over the past two years. With the entry of additional brands and a proliferation of models at more affordable prices, these compact video cameras are now mass market products. The models selling for under \$300 are especially attracting a lot of interest from consumers. Regardless of the type of action sport, a hands-free camera is great for shooting videos, and perhaps a few stills, of the action.

The design concept is simple but practical. The most common type of camera is a very small/lightweight camcorder with a built-in wide angle lens, but no viewfinder or LCD. It's designed specifically for mounting on a helmet, a bike's handlebars, a surfboard or another similar surface. Because it can record from the user's perspective, this type of equipment is often called a POV (point-of-view) camera. One manufacturer, Liquid Image, takes a different approach, building the camera/lens right into goggles for various types of activities, including scuba diving, for true eye-level recording.

While Panasonic and Sony each market one hands-free camcorder, they're pricey (selling at over \$1,500), targeting sports teams and broadcast or film pro-

As the name implies, point-of-view (POV) cameras, made by companies like Contour and GoPro, are designed for mounting on everything from a helmet to a surf board, then capturing footage from the point-of-view of the person recording.

fessionals. More affordable models for consumers are marketed by several other companies. In Canada, that's primarily GoPro, Contour, and Liquid Image at this time, although Oregon Scientific has a limited presence as well.

Small, Simple & Practical

Invented in 1987 and commercially available for at least a decade now, POV cameras were originally quite basic, and they used film to capture snapshot quality photos. They're all digital now, of course, and most current models can record still photos and HD video. The major manufacturers have devoted a great deal of R&D to this type of equipment, making each generation of cameras smaller and more sophisticated, yet still simple to use. That has dramatically increased their appeal, says Erik Davis, Vice President of Ryeka Sport, which distributes the Contour line in Canada.

"As companies like Apple developed and pushed more advanced features, that higher level of expectation was carried over to all products. In order to remain relevant, you do need to meet the consumer's high level of expectation."

While the major brands differ in terms of feature set, we have been seeing increased resolution, superior lenses and greater speed in the latest products.

Who's Buying POV?

Until 2009, hands-free cameras were primarily sold at sporting goods and specialty retailers such as dive, cycle and ski shops. They're still doing well with this

category, in fact, extremely well, according to Paul Montgomery, President of Skis & Bikes Ltd., a seven-store chain. The primary POV buyer is the under-18 male or the grandma buying it as a gift for her grandson, he says.

"The guys want it for all of their different action sports. Half of them own more than one POV camera. They're so easy to use, so rugged. The kids have a lot of fun showing their buddies all the crazy stuff they've been doing."

The young adrenaline junkie may still be the primary POV user, but the category has gone mainstream. That's partly due to wider distribution, according to Melanie Pearson, Vice President of Liquid Image Co. LLC.

"The category got a strong boost when buyers of larger and more diverse chains recognized that there is a customer base beyond the extreme athlete," she notes.

At least a couple of brands are now stocked by some major photo specialty and CE retailers, including Henrys, Vistek, Best Buy, and Future Shop. "Selling outside the niche markets [dive, ski and cycle shops] has definitely helped broaden the customer base," she concludes.

"It's a broad demographic now; this is an absolutely mass market product," explains Rick Loughrey, Director of Communications at GoPro. "Everyone has a passion...snowboarding, mountain biking, flying radio-controlled airplanes, driving in automobile rallies...and they want to share their experiences with others. The camera can be mounted or worn in so many different ways; it's unlimited as to how it can be used."

Consumer awareness of the benefits of a hands-free camera has grown rapidly, mostly due to social media, according to Pearson. "When the sports enthusiast comes back from his ride or vacation, he

wants to show friends or family what he was doing, so he uploads the video. It's often reposted at multiple sites, and then the sharing continues as people forward a link. Social media is growing fast, so anything that works with social media is also growing."

Since the brand of camera is usually mentioned when a video is posted, that's great free advertising, adds Lionel Lalonde, Vice President, Sales at LEI Electronics, the Liquid Image distributor in Canada. "The Internet has been phenomenal in getting coverage of our product out there. The bloggers who critique cameras and the consumers sharing videos through Twitter, Facebook and YouTube have certainly won us a number of new customers."

A Hot Category

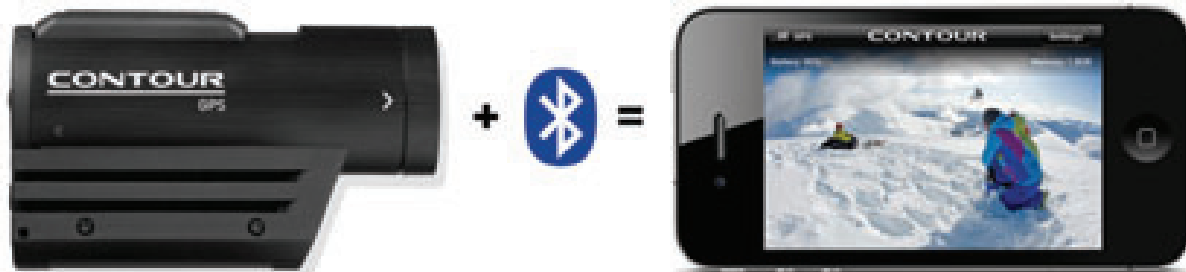
Distributors and retailers do not report POV as a separate category to NPD and other research companies, making it impossible to determine the sales volume. Everyone in the industry seems to feel that the category is growing. But few (if any) will reveal data about their own sales. Hence, any indication of growth for the category is usually supported only by anecdotal evidence. Based on his five years of experience as a distributor of POV equipment (initially GoPro and now Contour), and discussions with retailers, Davis provides more specific estimates.

"In the last two years, the POV category has seen incredible growth," he says. "We have some really good data as to where the market was last year in Canada; 20,000 to 25,000 units were sold. We believe that 30,000 to 90,000 units is definitely attainable for this category," he predicts.

Montgomery can't speak for the entire

Overview

- POV cameras are small, lightweight camcorders with built-in wide-angle lenses, no viewfinder or LCD, and designed to be mounted on a helmet, handlebar, surfboard, or other object for recording footage literally from the filmmaker's point-of-view
- While they have traditionally been geared toward adventure seekers and sporting enthusiasts, POV cameras are quickly going mainstream, representing a burgeoning new category in the imaging business
- Consumer awareness has grown, thanks to things like social media, giving the retailer the opportunity to capitalize on, and educate consumers further about, POV
- Key features include the ability to securely mount them in a variety of spots, rugged and weather-resistant builds, wide-angle lenses, high definition recording and burst shooting, and instant online uploading
- It's important that POV cameras are merchandised effectively, devoting enough space to the category, showcasing various mounting setups, powering it up and showing it in action



Most POV cameras don't have screens themselves. By connecting a compatible Contour POV camera to an iPhone, iPod Touch, or Android device via Bluetooth, users can preview the scene, and ensure the proper camera angle, right from the smartphone's screen.

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Photo Sport AW series comes in black/grey and orange/grey.

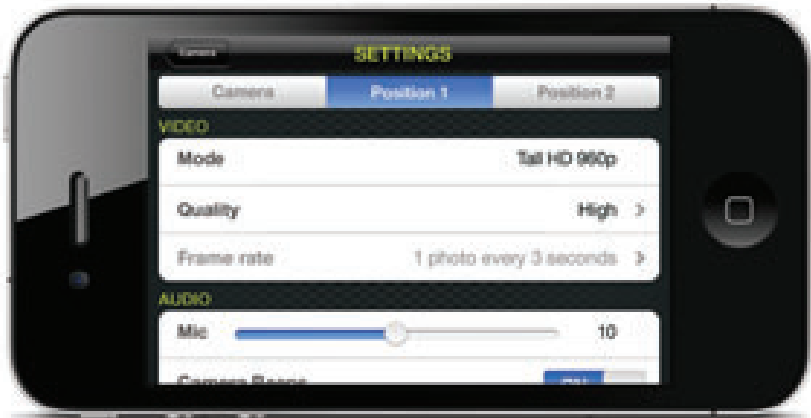
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Not only does Contour's iPhone/Android app allow users to see what the camera's seeing (most POV cameras don't have screens); it can also be used to tweak settings, like white balance, exposure, and audio levels. Contour's GPS, Roam, and Counter+ can connect to these devices via built-in Bluetooth.

market, but says POV sales at Skis & Bikes shops are booming. "There has been a huge increase, 200 per cent in the past year or so. Aside from the numerous wild videos on social media, GoPro and Contour added 1,080p. People could see how much better the quality was, and that's when they really started to rock."

Marketing and advertising have also helped to increase sales, says Fred Konkin, Video Sales Manager at Vistek. He has been particularly impressed with GoPro's efforts. (Their products are now distributed direct from the U.S.) "They have done an amazing job in marketing with all their lifestyle ads and large booths and oversized TV screens at consumer shows."

Montgomery agrees and adds another perspective. "GoPro pumped its money into marketing so it's still our best seller. Contour pumped it into new features: the smartphone apps, built-in GPS and the rotating lens [discussed later]. It's almost like GoPro brought us so far and Contour has taken us from there and rocketed us into the next millennium."

Konkin offers kudos to Ryeka Sport, however, for aggressively promoting the Contour brand in Canada. He mentions that they attend shows as well as outdoor events to educate active consumers about the benefits of a hands-free camera. "This makes a difference," he says. "They came to our downtown location with the Contour trailer; they served very good hot dogs and demonstrated the product. We sold quite a few of them that afternoon," he recalls.

While he won't divulge sales volumes at Vistek, Konkin agrees that the POV category is hot. "People buy them at a sporting goods shop to record their experiences, but we also attract the visually-oriented people with a lot of video experience, including those in the broadcast industry. They perceive greater value...for story-telling from a particular point of view on a show like the *Rick Mercer Report*." Especially with pro shooting techniques, a 1,080p POV camera can

produce fabulous videos. For example, Rick McCallum of Lucasfilm, Ltd., was recently quoted in the *New York Times* as saying: "When I saw the footage from the GoPro on our big screens at Skywalker Ranch, I was amazed."

Form Factor & Benefits

The hands-free or POV cameras vary in design, but they're usually box-like. Significant exceptions include the Liquid Image goggle cams and the Contour models, which are tubular. The boxy format offers some benefits, according to Loughery. "It provides great stability because the camera sits directly over the mount. It also lends itself to a chest strap mount." On the other hand, the tubular Contour camera offers a lower profile for less wind resistance. "You don't feel your helmet pulling when you're skiing fast," says Montgomery. "The mountings are also simpler; they don't need to be as complicated because of the streamlined shape."

In theory, a skier or cyclist could attach any small camera to a helmet or a bicycle with gaffer tape. Of course, jerry-rigged mounting is not very secure or versatile, and few of us would want a relatively large camcorder on our heads. "Many consumers have also tried skiing, boarding, riding or snorkelling with a handheld camera," Pearson adds. "They found that it was not impossible, but it was difficult or distracting at the least. Having a hands-free option is very appealing. That makes the concept of a wearable camera very attractive to anyone on-the-go."

Especially the GoPro and Contour POV cameras accept a wide range of mounting accessories, each designed for a specific purpose. All Contour models are weather-resistant; an optional underwater case is available. All of the GoPro Hero kits ship with a fully waterproof shell. Both brands are also very rugged.

"The Contour camera can take a beat-

ing and a bit of rain," says Lucas Moore, Program Director of SASS Global Travel, a company operating guided snowboard, ski and surfing trips. "I've hit a couple of trees while skiing but it seems to keep coming back."

Vistek's Konkin also emphasizes the ruggedness of both the lightweight GoPro (waterproof) case and the aluminum body of the Contour models. "They're virtually armoured, and there's also very little mass in the camera so it won't destroy itself. If it falls off the side of a car at 100 mph, just dust it off, give it a bit of Windex, and you're ready to go with the next shot."

Technology & Features

The hands-free cameras are heavily automated, designed for simplicity of operation. Depending on the brand, the number of user-selectable features ranges from a handful to very few. That's just as well, according to Moore. "When you're out there, you just want to turn it on and go. It won't do everything that an EOS 7D will, but it weighs very little, and it will give you great action shots and excellent HD video. The Contour cameras with GPS will also record the location, your altitude, and your speed for display when you post it on a social media site."

Wide Angle Lens: Until recently, most POV cameras were equipped with a lens with a field of view of around 135°, but the latest Contour and GoPro models are equipped with super wide 170° lenses. Liquid Image will soon be following suit. (When any camera with a super wide angle lens is used in 1,080p video mode, the field-of-view narrows to 127° or 135°.) Neither zooming nor autofocus is available, however. Focus is fixed to provide a great range of acceptably sharp focus: 0.6m to infinity with GoPro cameras for instance.

Contour offers a unique benefit hinted at earlier by Montgomery. The lens can be rotated within a 270° angle. Vistek's Konkin considers this to be a valuable selling feature.

"When you rotate the lens, you're also rotating the imaging module inside the camera to get whatever perspective you want. Even if you mount it on an angle or sideways, you can rotate it to get a straight, horizontal image."

Video & Stills Recording: Most current POV cameras can record HD video with sound, at 720p and increasingly at 1,080p. The latter is available now even with some entry-level models like the new Contour Roam. Full HD is a real bonus, Montgomery says.

"Customers are shocked by the quality they can get on a nice sunny day with 1,080p. It can be just as good as the stuff they see on the TV screens in the POP displays." Hands-free cameras can also shoot JPEGs, typically with 5MP resolu-

tion; models with 12MP sensors are already in development by Liquid Image and probably by others.

Frankly, most POV users shoot video, including the skiing and surfing coaches who work with SASS Global Travel. Everyone that I interviewed agreed with this assessment.

LEI's Lalonde summarizes it as follows. "They're shooting action sports. They



All GoPro Hero kits ship with a waterproof and rugged shell (waterproof housings are available for non-waterproof models), can withstand drops and hits, and fit securely wherever they're mounted.

Contour's POV cameras accept a wide variety of mounting accessories for placing the device on everything from helmets, to handlebars, a car's windshield, and even a surf board.



For those who feel they need it, GoPro has developed an optional miniature LCD screen that can be attached to the most recent cameras for providing scene preview, and immediate play back of captured footage and stills.

want to capture the entire experience and then watch it to make themselves better the next time. And it's videos they want to share with their friends. I'd say that we're seeing 99 per cent videos [from Liquid Image users]."

As mentioned already, a POV camera will not replace a conventional camera for all purposes. Aside from the lack of auto-focus or zooming, there are few features for creative control. And the continuous drive mode (if available) is not very fast, and it provides limited burst depth. "The still photo option is mostly for taking a few shots when you're stationary, at the summit perhaps," Pearson suggests. Some cameras offer extra amenities, like a time-lapse mode for taking one shot every 15 seconds, for example.

"That's a tool in your quiver, but it's still a video camera with a wonderful option to shoot still photos when that's required," Ryeka Sport's Davis says.

Viewing Features: Since a POV camera is intended for recording while the user is involved in some activity, there's no viewfinder. And only one model available in Canada is equipped with a small LCD screen, the Oregon Scientific ATC9K. Most POV owners appreciate the simplicity of this type of camera. They simply mount it on their helmet or handlebars for example, point it in the right direction, and press the Record button. It's even simpler with the Liquid Image cameras, which are embedded in high quality goggles

designed for various types of sports. Later, the user can view the videos or stills on a computer monitor or a TV.

Omitting the LCD has resulted in some drawbacks. Especially when the lens provides only 135° coverage, it's important to position it to accurately record the user's point of view. (That's not an issue with the Liquid Image goggle cams since the lens is embedded directly above the user's eyes.) Typically, that called for guesswork because there was no display screen to provide a preview of the scene. But when you're using a hands-free camera with a super wide angle 170° lens, it's not difficult to aim it to get everything you're seeing, says GoPro's Loughrey.

Without the ability to preview the scene as the camera will record it, there's no way to be certain as to the best White Balance or exposure setting. That's not a huge issue with most cameras since they provide very few overrides in any event. Since some users demand a screen, GoPro developed one last year. The small and slim "BacPac" accessory LCD can be attached to the company's more recent cameras via a built-in serial slot. It will then provide scene preview as well as video and still image playback.

Bluetooth Connectivity: Instead of an add-on screen, Contour developed a unique feature: Bluetooth connectivity to an Apple device (iPhone 4, iPhone 3GS, or iPod touch, 3rd and 4th generation) or to an Android device (OS v. 2.2.1 and

above). It's only available with the Contour GPS, Roam and Contour+ models since they're the ones equipped with the slot for the necessary Connect View card.

When this feature is activated, it's possible to preview the scene through the camera's lens, on the device's screen. "There's no need to remove the POV camera from

your helmet, for example, as with an add-on or built-in LCD," Davis explains. "And you can adjust all camera features via the phone, including the White Balance, exposure and audio levels."

The ability to see what the camera will record is particularly useful, says Paul Montgomery, a frequent POV camera user. "Even with a 170° camera, you can



The Oregon Scientific ATC9K is the only POV camera available with a small LCD screen. This makes it easier to position the camera properly to obtain footage at the ideal angle, and preview the image to ensure things like proper white balance and exposure.

CONTOUR



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For an introduction to the world of Contour "point of view" camcorders contact Erik Davis at 905-602-9988 ext 226 or e-mail edavis@ryekasport.com



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view your videos and realize that it was pointing 20 degrees too high the whole day. That should not happen if you use the Contour app. Everyone has a smartphone, and the Bluetooth connectivity is simple and quick to set up and to use."

Moore wishes that he could also view a video clip he had just recorded with a Contour GPS camera on his iPhone while in the back country. I discussed this aspect with Davis, who would not comment specifically, but offers the following hint. "Features that might be available in future through the Contour app could include reviewing previously-recorded clips, basic video editing, and easy video posting to Facebook, the Contour community, YouTube or Twitter, via an iPhone or Android device."

Effective Merchandising

While advertising and promotion have increased consumer awareness, in-store displays can boost the sale of POV cameras and accessories. "It's worth devoting extra space to this category," says Lalonde. "The margins are not rich, but there is a significant demand. CE retailers understand this and it's incremental sales for them. Future Shop, for example, has created end caps dedicated to GoPro and now to Liquid Image." The Vistek stores stock GoPro and Contour, and they're equipped with full POP displays for both, including flat screen TVs, and a wall full of accessories.

"A POV camera is an impulse item to a large degree," Konkin advises. "If you don't know about it, it's not the first thing that comes to mind. We have a good footprint dedicated to this product category. You give it as much space as it dictates sales-wise, and as sales go higher, you devote more space until the market is finally saturated."

A bricks and mortar store has a significant edge over the online reseller, as Lalonde explains. "The consumer can walk in and actually see the product. When retailers have it powered up and have the knowledgeable staff, we see a lot more sales if retailers provide that kind of support," he says. "It's a totally different experience for a customer to hold it in his hand to see the size of the product,



While there are no concrete figures that examine the POV camera market in Canada specifically, Erik Davis, Vice President, Ryeka Sport, Canadian distributor of the Contour line, says he's seen "incredible growth" in the category over the past two years.

try the features, and understand how they work."

The ability to display and demonstrate the many mounts for diverse purposes is a benefit too, Loughrey adds. "When a customer is checking out a GoPro kit, you can discuss what he plans to do. He may be considering one that includes a helmet mount and that is ideal for some sports, but the [optional] chest harness, for instance, is preferable for others. There's an opportunity for talking about the different ways that a camera can be used, and that's very effectively done in a retail environment."

Konkin finds that the sample videos made with the GoPro and Contour cameras are particularly useful. "The LCD TV screens display the best clips, lifestyle situations with extreme sports made in the sunny south. The average person does not realize how good the quality of the

HD video can be, at least in decent lighting conditions; but seeing is believing. The screen is basically your silent salesman. It's a hot medium; there's action on the screen and it draws the crowds like moths to a flame."

The Bottom Line

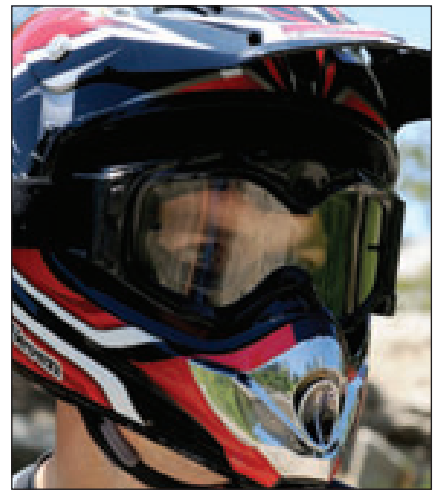
While POV cameras are selling like hotcakes, this is still a new category in some respects. As Davis puts it, "... the market is still in its infancy from the CE side." His estimates as to future sales volumes, though, and Konkin's comments about devoting extra space to this category, certainly suggest that the market has not peaked. Without solid stats, we cannot confirm the growth trend. Still, it does seem likely that a potential for increased sales exists for the next couple of years, at least.

The most significant factors for suc-

cess are stocking the latest POV cameras and accessories, installing the very effective POP displays, employing certain merchandising techniques, and well-trained sales staff. The latter is particularly important, according to Montgomery.

"The CE retailers will give us some competition, but unless they sell it for half the price, we're not worried. When you walk in to one of the Skiis & Bikes stores, there's a 90 per cent chance of talking to someone who owns one, uses it on a regular basis, and has a lot of fun with it."

That expertise with hand-free, POV equipment, based on personal experience, can be achieved in any sector, GoPro's Loughrey believes. "Just because someone is working at [a CE retailer], they probably have a hobby they're passionate about. If that's one or more of the action sports, they'll want to discover the camera too, and they'll be able to talk knowledgeably about it." MN



Liquid Image takes a different approach to the traditional POV camera design, building the camera/lens right into the goggles for true eye-level recording.

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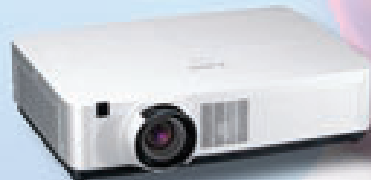
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