

DAN MINDEL, ASC, BSC  
THE AMAZING SPIDER-MAN 2

DARIUS KHONDJI, ASC, AFC  
THE IMMIGRANT

JAMES HAWKINSON  
HANNIBAL

# American Cinematographer

International Journal of Motion Imaging

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# GODZILLA

SEAMUS MCGARVEY, ASC, BSC  
IGNITES MONSTER ATTACK





# American Cinematographer

The International Journal of Motion Imaging

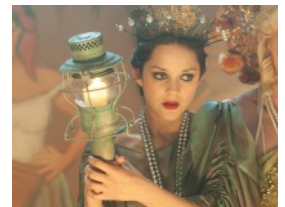
On Our Cover: An iconic monster goes on the rampage in *Godzilla*, shot by Seamus McGarvey, ASC, BSC. (Image courtesy of Warner Bros.)

## FEATURES

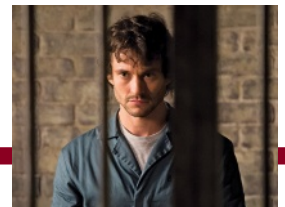
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# Short Takes

A highway patrol officer confronts a disturbed Vietnam veteran (Brian Krause) in *Random Stop*, shot by Justin Perkinson.



## A First-Person Tragedy

By Scott Pelzel

With the ever-changing world of digital cinematography offering filmmakers a greater variety of tools, choosing the right ones for a project can be a time-intensive but exciting process. That was the case on the short film *Random Stop*, which served as an MFA thesis for both directing student Benjamin Arfmann and cinematography student Justin Perkinson at the University of California-Los Angeles.

Based on real events that occurred in 1998, the film depicts the shooting death of a Georgia sheriff's deputy, Kyle Dinkheller (Geoffrey Kennedy), by a disturbed Vietnam veteran, Andrew Bran-nan (Brian Krause), after a routine traffic stop. Inspired by the cinematography in the 2012 indie *End of Watch*, and by real footage of Dinkheller's death that was captured by the dashboard camera in his squad car, the filmmakers wanted to capture the events entirely from the deputy's point of view in real time. "Designing and shooting a seven-minute real-time event involving a high-speed chase, live gunfire and a variety of special effects, all told through a first-person POV, proved tremendously difficult, but ultimately hugely rewarding," says Perkinson.

Finding the right tools for the job was a journey that began at the 2013 NAB Show. Perkinson recounts, "The challenge was finding a cinema-quality camera that was lightweight and mobile enough to literally wear. We also needed a cinematic lens option, one that approximated a human field-of-view and also allowed for some focus pulling. Ben, [producer/visual-effects supervisor] J.P. Castel and I were excited by several options we saw at NAB, but

none of them seemed to perfectly suit our needs. Then, J.P. pointed us to Radiant Images."

The filmmakers remembered that Radiant Images had developed the pocket-sized Silicon Imaging SI-2K Nano for *End of Watch*, which was shot largely with cameras worn or operated by the two main characters, both Los Angeles police officers (AC Oct. '12). "Once we linked up with Radiant Images, Nick Lantz and his colleagues were very helpful as we narrowed down our camera search," says Perkinson. "We finally decided on an SI-2K Nano and a Kowa 5mm F1.8 lens. That package gave us 2K resolution and an adequate proxy for human vision, as well as some focus-pulling capability.

"We tested several mounting solutions to determine how to place the camera/lens on a helmet rig so that I could both see what I was shooting and properly frame myself as the deputy," the cinematographer continues. Perkinson wore military-grade Tac Eye goggles, which included a tiny movie screen over his left eye.

Footage was recorded in 12-bit raw 2K to a Cinedeck Extreme HD, which was most often bolted into a heavy-duty plastic backpack frame Perkinson wore. For shots featuring a nearly 360-degree field-of-view, the Cinedeck was tethered to the Nano with a long cable wrangled by 2nd AC Shamsi Luna. Images were monitored via a Teradek Bolt wireless system. "Everything was monitored in 720p 24 fps out of the Blackmagic Design SDI card from the Cinedeck," says Perkinson.

In order to pull focus, Perkinson and 1st AC Michael Pyrz mounted a Cmotion Cvolution C3 wireless follow-focus system to the Kowa lens, which was rigged to the customized helmet cam. Pyrz often had to be far from the subjects in order to stay out of

Frame grabs and photos courtesy of the filmmakers.



shot, so he typically gauged focus by relying on a monitor at video village and the approximate distances planned during rehearsals.

"Geoff Kennedy provided Dinkheller's voiceover in post and also performed for two greenscreen shots where he is seen in reflections," explains Perkinson. "I had to play Dinkheller as we did the live takes, so I was involved in early rehearsals with Ben, Geoff and Brian. I had to develop an intimate understanding of the story beats that they developed together, and then deliver those beats while filming, all while making sure I gave a 'real' enough performance for Brian, who was playing opposite me."

Kennedy's reflection shots were filmed by visual-effects cinematographer/gaffer Jason Knutzen after the three days of principal photography in Santa Clarita, Calif., had wrapped. (Perkinson had to immediately depart for another project, a documentary in China for which he won a Fulbright Arts Grant.) One of the shots shows Dinkheller reflected in the driver's-side window of his vehicle, and the other shows him reflected in its rear panel. "Jason shot plates of Geoff's upper torso and face in front of a greenscreen, and J.P. comped them onto my body in post," says Perkinson. "Jason did a great job of accurately re-creating the lighting and movement I had created on set."

In general, he continues, "maintaining lighting continuity was a really difficult part of this puzzle because the story unfolds over seven minutes in real time. We had to deal not only with the sun's changing position, but also weather and cloud cover that changed dramatically over our three-day shoot."

Perkinson approached this challenge by constructing a 15-hour light map of the location to see where the shadows and sun would fall during the various scenes. "Ben and I then blocked out the entire film in a parking lot weeks before production, so we knew exactly where the characters would be at each point in the story. We then found a west-facing location that felt like the right space for our story."

Given the dynamic design of most of the shots, Perkinson most often relied exclusively on natural light. However, he and

Shots captured from the patrolman's POV show him adjusting his car mirror, exchanging gunfire with the veteran and falling to the ground after being hit by a bullet.



To simulate the police officer's perspective, Perkinson wore a customized helmet cam. Footage was recorded in 12-bit raw 2K to a Cinedeck Extreme HD bolted to a wearable backpack frame, and images were monitored via a Teradek Bolt wireless system.

Knutzen worked some tools into a couple of setups. Perkinson explains, "For the scene where I'm sitting in the car and looking at family photos, we used a reflector to bring up the ambient light level and try to main-

tain some shadow detail. Also, during my initial confrontation with Brian after the chase, when he runs right up to my face, we flew in some negative fill to stop him down a bit."



Another challenge was how to make the blocking look like natural body movement while hitting the necessary beats. Because of the real-time conceit, the timing had to be precise. "In addition to learning how to shoot a gun, I had to figure out how to operate a camera with my neck and how to make that movement look natural onscreen," says Perkinson. "The operational challenges were compounded by the fact that I was also my own stuntman, so I was dressed in a padded Neoprene suit and wearing explosive blood squibs.

"For the high-speed chase," he continues, "we had a professional stunt driver, Webster Whinery Jr., driving the vehicle, wearing the helmet cam and dressed in Dinkheller's wardrobe, while I sat behind him with the Cinedeck monitor on my lap. I literally reached around him to operate the helmet rig while he sped down the highway. I framed the shot I wanted and tried to maintain as much stability as possible. The road was quite bumpy, and it just so happened that on our 'keeper take,' the Cinedeck slipped from my lap as we swerved around some other cars. I caught it between my calves and held it steady enough to monitor for the rest of the take. It was one of those magical moments of moviemaking where you can't actually believe you got the take, but it works nonetheless!"

*Random Stop* was graded on a Quantel Pablo at Light Iron, where Arfmann worked with colorist Ian Vertovec. The picture was mastered in 2K and output at 1920x1080 HD for festival and online exhibition. The film received its world premiere at the 2014 South by Southwest Film Festival. ●