

Shooting Dramatic Fireworks

by Paul W. Faust

One of the many things we all go to see during our national holidays, as well as at many other special events, are the big fireworks displays put on at night. Even though it may be pitch black out, there is no real need for special equipment to shoot fireworks. Besides a good zoom lens in the 35-120mm range, depending on how far away you are from where they will be going off, all that is needed is a good sturdy tripod, a cable release, a small 4x5 inch piece of dark matt board, and a slow speed film of ISO-64, or less to get rolls full of great shots. There is no need to use special filters or any other piece of custom photo equipment. In fact everything you will need you should already have.

Probably the #1 factor you should take care of first is scouting the best location to shoot from. This usually means first knowing from WHERE the fireworks will be launched. That will dictate where you will have to be to get the best shots of them. There can be many factors in choosing the right location. Take into consideration the following; is there water in the area that you could get reflections in? Are there a lot of trees that might block your view of many of the exploding rockets? Will you be able to see the rockets from the time they first go off so that you can also get the trail of flames as they shoot up? How many people might end up getting in front of you to block your view? Is there any building in the area that might add to the display as either background or foreground? Can you easily get from one good location to a second location quickly enough to get good shots at both? (When you do your first scouting trip don't just look for one spot and then go home. Look for several good locations in case the first one does not work out. You may go back to find that it is now behind a police barricade and you end up with no place to shoot from.)

Get to your chosen location well before the fireworks begin, set up your camera on the tripod, attach the cable release and focus the lens for the area that ranges from the (blast-off) spot to the area needed to get in the largest bursts. Hence the need for a good zoom lens that goes down to a wide angle. Use the first several bursts for setting up your framing. They are usually the least impressive anyway. If you get too much area in a frame you can always crop some out later on, but you can not add to what is not there if you cut parts out when composing.

Long exposures are the norm for firework displays, but there are tricks to making them. Exposures can be done in two ways. By setting the speed to "bulb," or by using multiple exposures if your camera has that ability. For multiple exposures you count the seconds it takes for one rocket to blast off and fully explode, and then set your speed for that long, about 4-6 seconds. Set the aperture at about f8. Then set the exposure count for how many bursts you want on each frame. Too many will start to wash out the whole image, so stick to about 3-5 exposures per frame. This again will also depend on how far away you are from them. It also depends on the color of the explosions. Mostly red ones can allow for more exposures, but if there are more than a few all white clusters then that frame will start to wash out. I never allow more than three large white ones per frame, or two if they are real bright. They will also wash out the other colors as well.

For exposures using the "bulb" setting, which is really the best way to do them, you need a cable release that will lock your aperture open. For this method you need the 4x5 dark cardboard. You place the card in front of the lens and when the fireworks start, trip the shutter and lock it open. An assistant is good to have here so they can trip the shutter when you say to. The card blocks the light until you want to expose a burst. Then as the rockets fire off you remove the card and record the exposure by counting off the seconds. Replace the card back in front of the lens, (but be sure not to bump it) and wait for the next rocket. When it is about to explode, remove the card. How often you do this depends on how many are fired off together. Usually 4-6 bursts of 4-8 seconds each. Then release the cable to end that exposed frame, and repeat. If you find that most explosions are of deep colors then you can close down the lens one or two more stops and make even more exposures per frame. You do have limits to how many you can do or before long, the entire frame will become nothing but streaks of fire and then nothing will look good.

The main things to remember are that the brighter the bursts, or the more white they are, the less number you can expose on one frame. Try these tips the next time you shoot fireworks and have another helper keep a record of how you expose each frame, including how many "different" bursts went off, and how many times you removed the card, and for how long each time. When you get the results back you can see which ones made the best images, and start from there the next time. You should also vary the f-stops from f8 to f16 to see which gives the best colors, or the most bursts. The smaller the f-stop the more bursts you can record. Generally the best images are the ones with 5-8 second exposures, and 3-5 exposures per frame. Too many bursts can be just as bad as too few.



Editor's Note: Thumbnails are links to full size images

One other trick you can use with a zoom lens is to shoot 2 or 3 "multiple exposures" at a wide angle, and then one zoomed in a bit. This will give you explosions that look as though one went off real close and the others far off in the background. It takes practice for that one.

Also, if you have the equipment, set up 2 cameras, one for the bulb, and the other for the multiple exposure method. You won't be able to operate them both at the same time, but you can switch back and forth to get more shots in less time.

GOOD SHOOTING!

Image Note: The fireworks in these three images were all set off from one bridge over the Tennessee River, and photographed from a second bridge. This location gives photographers positions to shoot from both sides of the river, and both up stream and down, (or in the middle in some cases.) These are the largest display of the year and held over the Labor Day weekend each year.

About the Author

Paul W. Faust is a self-taught Photographer, Writer, Digital Imaging, Photo Restoration, and Photo Stock Service professional.

His work has been published in American Photographer, Camera 35, Camera and Darkroom, Popular Photography, Photographic, Photographers Forum, www.apogeephoto.com and here at TPN. Past assignments have included many cover images, full-page spreads, and also shooting stills for both Hollywood movie sets, and for star hopefuls including Bo Derick, Heather Locklear, and Pricilla Barnes, among others. Paul's images have also been used by; NikonNet, Bogen Photo Imaging, East Tennessee Film Commission, and The Knoxville Zoo, to name a few, including their web sites.

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